

**IHIERM**

**LEVEL**

**V2.M01**

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Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIERM)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00102
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID - 360S-LM-532	ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS - LEVEL 2.1		00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION - THIS CONTROL SECTION CONTAINS ALL		00007001
				8 *	THE MESSAGES USED BY THE ERROR ROUTINE		00008001
				9 *			00009001
				10 *	ENTRY POINTS - N/A		00010001
				11 *			00011001
				12 *	OUTPUT - N/A		00012001
				13 *			00013001
				14 *	EXTERNAL ROUTINES - N/A		00014001
				15 *			00015001
				16 *	EXITS - N/A		00016001
				17 *			00017001
				18 *	TABLES/WORK AREAS -		00018001
				19 *	THIS CONTROL SECTION IS MADE UP OF TABLES		00019001
				20 *			00020001
000000		00000	009B1	21	IHIERMSG	CSECT	00021001
				22 *			00022001
				23	ENTRY	IHIERM01	00023001
				24 *			00024001
	00003			25	FLAGIDS	EQU X'03'	00025001
	00001			26	FLAGIPS	EQU X'01'	00026001
	00004			27	FLAGMC	EQU X'04'	00027001
				28 *			00028001
000000	00000C3			29	DC	A(MESS0)	00029001
000004	00000E0			30	DC	A(MESS1)	00030001
000008	0000011D			31	DC	A(MESS2)	00031001
00000C	00000149			32	DC	A(MESS3)	00032001
000010	0000016E			33	DC	A(MESS4)	00033001
000014	000001A6			34	DC	A(MESS5)	00034001
000018	000001D6			35	DC	A(MESS6)	00035001
00001C	0000022E			36	DC	A(MESS7)	00036001
000020	0000029D			37	DC	A(MESS8)	00037001
000024	000002DD			38	DC	A(MESS9)	00038001
000028	00000317			39	DC	A(MESS10)	00039001
00002C	00000332			40	DC	A(MESS11)	00040001
000030	0000034B			41	DC	A(MESS12)	00041001
000034	00000387			42	DC	A(MESS13)	00042001
000038	000003BD			43	DC	A(MESS14)	00043001
00003C	000003EC			44	DC	A(MESS15)	00044001
000040	00000424			45	DC	A(MESS16)	00045001
000044	0000045E			46	DC	A(MESS17)	00046001
000048	0000047D			47	DC	A(MESS18)	00047001
00004C	000004A6			48	DC	A(MESS19)	00048001
000050	000004E4			49	DC	A(MESS20)	00049001
000054	00000529			50	DC	A(MESS21)	00050001
000058	0000058D			51	DC	A(MESS22)	00051001
00005C	000005BA			52	DC	A(MESS23)	00052001
000060	000005DB			53	DC	A(MESS24)	00053001
000064	00000601			54	DC	A(MESS25)	00054001
000068	00000627			55	DC	A(MESS26)	00055001
00006C	00000663			56	DC	A(MESS27)	00056001
000070	0000069F			57	DC	A(MESS28)	00057001
000074	000006D6			58	DC	A(MESS29)	00058001
000078	00000719			59	DC	A(MESS30)	00059001
00007C	0000074F			60	DC	A(MESS31)	00060001
000080	00000788			61	DC	A(MESS32)	00061001
000084	000007AC			62	DC	A(MESS33)	00062001
000088	000007D6			63	DC	A(MESS34)	00063001
00008C	00000817			64	DC	A(MESS35)	00064001
000090	00000833			65	DC	A(MESS36)	00065001
000094	00000890			66	DC	A(MESS37)	00066001
000098	000008D0			67	DC	A(MESS38)	00067001
00009C	000008EC			68	DC	A(MESS39)	00068001
0000A0	00000911			69	DC	A(MESS40)	00069001
0000A4	00000943			70	DC	A(MESS41)	00070001
0000A8	0000096C			71	DC	A(MESS42)	00071001
0000AC	00000986			72	DC	A(MESS43)	00072001
				73 *			00073001
0000B0	C9C8C9F04040C940			74	IHIERM01	DC C'IHI0 I SC= '	00074001
				75 *			00075001
0000C3	1B			76	MESS0	DC AL1(L'MESS0T)	00076001
0000C4	00			77		DC AL1(0) FLAGS	00077001
0000C5	C4C1E3C1E2C5E340			78	MESS0T	DC C'DATASET NUMBER OUT OF RANGE'	00078001
				79 *			00079001
0000E0	3B			80	MESS1	DC AL1(L'MESS1T)	00080001
0000E1	03			81		DC AL1(FLAGIDS) FLAGS	00081001
0000E2	C4E2D57E40404040			82	MESS1T	DC C'DSN= REAL NUMBER TO BE CONVERTED OUT OF INTEGER RANGE'	00082001
							00083001
				83 *			00084001
00011D	2A			84	MESS2	DC AL1(L'MESS2T)	00085001
00011E	03			85		DC AL1(FLAGIDS) FLAGS	00086001
00011F	C4E2D57E40404040			86	MESS2T	DC C'DSN= INCOMPATIBLE ACTIONS ON DATASET'	00087001
				87 *			00088001
000149	23			88	MESS3	DC AL1(L'MESS3T)	00089001
00014A	03			89		DC AL1(FLAGIDS) FLAGS	00090001
00014B	C4E2D57E40404040			90	MESS3T	DC C'DSN= INPUT BEYOND LAST OUTPUT'	00091001
				91 *			00092001
00016E	23			92	MESS4	DC AL1(L'MESS3T)	00093001
00016F	00			93		DC AL1(0) FLAGS	00094001
000170	E3D6D40D4C1D5E8			94	MESS4T	DC C'TOO MANY REPOSITIONINGS IN DATASETS. INTERNAL OVERFLOW'	00095001
							00096001
				95 *			00097001

Active USINGs: None

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0001A6	2E			96	MESS5	DC AL1(L'MESS5T)	00098001
0001A7	03			97	DC	AL1(FLAGIDS) FLAGS	00099001
0001A8	C4E2D57E40404040			98	MESS5T	DC C'DSN= INPUT REQUEST BEYOND END OF DATASET'	00100001
				99	*		00101001
0001D6	3E			100	MESS6	DC AL1(L'MESS6T)	00102001
0001D7	07			101	DC	AL1(FLAGIDS+FLAGMC) FLAGS	00103001
0001D8	C4E2D57E40404040			102	MESS6T	DC C'DSN= EXPONENT PART OF INPUT NUMBER CONSISTS OF MORE THAN'	00104001
							00105001
000216	16			103	DC	AL1(L'MESS6T1)	00106001
000217	00			104	DC	AL1(0) FLAGS	00107001
000218	E3E6D640E2C9C7D5			105	MESS6T1	DC C'TWO SIGNIFICANT DIGITS'	00108001
				106	*		00109001
00022E	40			107	MESS7	DC AL1(L'MESS7T)	00110001
00022F	07			108	DC	AL1(FLAGIDS+FLAGMC) FLAGS	00111001
000230	C4E2D57E40404040			109	MESS7T	DC C'DSN= **NO CONTROL CHARACTER SPECIFIED IN RECORD C'FORMAT OF '	00112001
							00113001
000270	2B			110	DC	AL1(L'MESS7T1)	00114001
000271	00			111	DC	AL1(0) FLAGS	00115001
000272	C4C1E3C1E2C5E34B			112	MESS7T1	DC C'DATASET. SPLITTING INTO SECTIONS IMPOSSIBLE'	00116001
				113	*		00117001
00029D	3E			114	MESS8	DC AL1(L'MESS8T)	00118001
00029E	03			115	DC	AL1(FLAGIDS) FLAGS	00119001
00029F	C4E2D57E40404040			116	MESS8T	DC C'DSN= SOURCE IN PROCEDURE OUTSYMBOL DOES NOT MATCH H STRING'	00120001
							00121001
				117	*		00122001
0002DD	38			118	MESS9	DC AL1(L'MESS9T)	00123001
0002DE	03			119	DC	AL1(FLAGIDS) FLAGS	00124001
0002DF	C4E2D57E40404040			120	MESS9T	DC C'DSN= UNDEFINED FUNCTION NUMBER IN SYSACT PROCEDURE RE'	00125001
							00126001
				121	*		00127001
000317	19			122	MESS10	DC AL1(L'MESS10T)	00128001
000318	03			123	DC	AL1(FLAGIDS) FLAGS	00129001
000319	C4E2D57E40404040			124	MESS10T	DC C'DSN= DATASET CLOSED'	00130001
				125	*		00131001
000332	17			126	MESS11	DC AL1(L'MESS11T)	00132001
000333	03			127	DC	AL1(FLAGIDS) FLAGS	00133001
000334	C4E2D57E40404040			128	MESS11T	DC C'DSN= DATASET OPEN'	00134001
				129	*		00135001
00034B	3A			130	MESS12	DC AL1(L'MESS12T)	00136001
00034C	03			131	DC	AL1(FLAGIDS) FLAGS	00137001
00034D	C4E2D57E40404040			132	MESS12T	DC C'DSN= QUANTITY IN SYSACT PROCEDURE MUST BE A VARIABLE'	00138001
							00139001
				133	*		00140001
000387	34			134	MESS13	DC AL1(L'MESS13T)	00141001
000388	03			135	DC	AL1(FLAGIDS) FLAGS	00142001
000389	C4E2D57E40404040			136	MESS13T	DC C'DSN= QUANTITY IN SYSACT PROCEDURE OUT OF RANGE'	00143001
				137	*		00144001
0003BD	2D			138	MESS14	DC AL1(L'MESS14T)	00145001
0003BE	03			139	DC	AL1(FLAGIDS) FLAGS	00146001
0003BF	C4E2D57E40404040			140	MESS14T	DC C'DSN= BACKWARD REPOSITIONING NOT DEFINED'	00147001
				141	*		00148001
0003EC	36			142	MESS15	DC AL1(L'MESS15T)	00149001
0003ED	00			143	DC	AL1(0) FLAGS	00150001
0003EE	E4D7D7C5D940C2D6			144	MESS15T	DC C'UPPER BOUND LESS THAN LOWER BOUND IN ARRAY DECLARATION'	00151001
							00152001
				145	*		00153001
000424	38			146	MESS16	DC AL1(L'MESS16T)	00154001
000425	00			147	DC	AL1(0) FLAGS	00155001
000426	E5C1D3E4C540D6C6			148	MESS16T	DC C'VALUE OF SUBSCRIPT EXPRESSION NOT WITHIN DECLARED BOUNDS'	00156001
							00157001
				149	*		00158001
00045E	1D			150	MESS17	DC AL1(L'MESS17T)	00159001
00045F	00			151	DC	AL1(0) FLAGS	00160001
000460	C5D5C4D3C5E2E240			152	MESS17T	DC C'ENDLESS LOOP IN FOR STATEMENT'	00161001
				153	*		00162001
00047D	27			154	MESS18	DC AL1(L'MESS18T)	00163001
00047E	00			155	DC	AL1(0) FLAGS	00164001
00047F	E2E3D6D9C1C7C540			156	MESS18T	DC C'STORAGE REQUEST FOR ARRAY EXCEEDS LIMIT'	00165001
				157	*		00166001
0004A6	3C			158	MESS19	DC AL1(L'MESS19T)	00167001
0004A7	00			159	DC	AL1(0) FLAGS	00168001
0004A8	E4D5C5D8E4C1D340			160	MESS19T	DC C'UNEQUAL NUMBER OF DIMENSIONS FOR ACTUAL AND FORMAL PARAMETERS'	00169001
							00170001
				161	*		00171001
0004E4	43			162	MESS20	DC AL1(L'MESS20T)	00172001
0004E5	00			163	DC	AL1(0) FLAGS	00173001
0004E6	C1C3E3E4C1D340C1			164	MESS20T	DC C'ACTUAL AND CORRESPONDING FORMAL PARAMETER OF DIFFERENT TYPE OR KIND'	00174001
							00175001
				165	*		00176001
000529	43			166	MESS21	DC AL1(L'MESS21T)	00177001
00052A	04			167	DC	AL1(FLAGMC) FLAGS	00178001
00052B	E4D5C5D8E4C1D340			168	MESS21T	DC C'UNEQUAL NUMBER OF PARAMETERS IN PROCEDURE DECLARATION AND PROCEDURE'	00179001
							00180001
00056E	1D			169	DC	AL1(L'MESS21T1)	00181001
00056F	00			170	DC	AL1(0) FLAGS	00182001
000570	E2E3C1E3C5D4C5D5			171	MESS21T1	DC C'STATEMENT/FUNCTION DESIGNATOR'	00183001
				172	*		00184001
00058D	2B			173	MESS22	DC AL1(L'MESS22T)	00185001
00058E	00			174	DC	AL1(0) FLAGS	00186001
00058F	C1E2E2C9C7D5D4C5			175	MESS22T	DC C'ASSIGNMENT TO FORMAL PARAMETER NOT POSSIBLE'	00187001
				176	*		00188001
0005BA	1F			177	MESS23	DC AL1(L'MESS23T)	00189001
0005BB	00			178	DC	AL1(0) FLAGS	00190001
0005BC	C1D9C7E4D4C5D5E3			179	MESS23T	DC C'ARGUMENT OF SQRT LESS THAN ZERO'	00191001
				180	*		00192001
0005DB	24			181	MESS24	DC AL1(L'MESS24T)	00193001

	Object	Code	Addr1	Addr2	Stmnt	Source	Statement	X390	3.1.04	2012/08/17	13.21
005DC	00				182	DC	AL1(0)	FLAGS		00194001	
005DD	C1D9C7E4D4C5D5E3				183	MESS24T	DC	C'ARGUMENT OF EXP GREATER THAN 174.673'		00195001	
					184	*				00196001	
00601	24				185	MESS25	DC	AL1(L'MESS25T)		00197001	
00602	00				186	DC	AL1(0)	FLAGS		00198001	
00603	C1D9C7E4D4C5D5E3				187	MESS25T	DC	C'ARGUMENT OF LN NOT GREATER THAN ZERO'		00199001	
					188	*				00200001	
00627	3A				189	MESS26	DC	AL1(L'MESS26T)		00201001	
00628	00				190	DC	AL1(0)	FLAGS		00202001	
00629	C1C2E240E5C1D3E4				191	MESS26T	DC	C'ABS VALUE OF ARGUMENT OF SIN OR COS NOT LESS THAN PI*2**18'		00203001	
					192	*				00204001	
00663	3A				193	MESS27	DC	AL1(L'MESS27T)		00205001	
00664	00				194	DC	AL1(0)	FLAGS		00206001	
00665	C1C2E240E5C1D3E4				195	MESS27T	DC	C'ABS VALUE OF ARGUMENT OF SIN OR COS NOT LESS THAN PI*2**50'		00207001	
					196	*				00208001	
0069F	35				197	MESS28	DC	AL1(L'MESS28T)		00209001	
006A0	01				198	DC	AL1(FLAGIPS)	FLAGS		00210001	
006A1	D7E2E67E40404040				199	MESS28T	DC	C'PSW=	FIXED POINT OVERFLOW INTERRUPT'	00211001	
					200	*				00212001	
006D6	41				201	MESS29	DC	AL1(L'MESS29T)		00213001	
006D7	01				202	DC	AL1(FLAGIPS)	FLAGS		00214001	
006D8	D7E2E67E40404040				203	MESS29T	DC	C'PSW=	FLOATING POINT EXPONENT OVERFLOW INTERRUPT'	00215001	
					204	*				00216001	
00719	34				205	MESS30	DC	AL1(L'MESS30T)		00217001	
0071A	01				206	DC	AL1(FLAGIPS)	FLAGS		00218001	
0071B	D7E2E67E40404040				207	MESS30T	DC	C'PSW=	DIVISION BY ZERO, FIXED POINT'	00219001	
					208	*				00220001	
0074F	37				209	MESS31	DC	AL1(L'MESS31T)		00221001	
00750	01				210	DC	AL1(FLAGIPS)	FLAGS		00222001	
00751	D7E2E67E40404040				211	MESS31T	DC	C'PSW=	DIVISION BY ZERO, FLOATING POINT'	00223001	
					212	*				00224001	
00788	22				213	MESS32	DC	AL1(L'MESS32T)		00225001	
00789	03				214	DC	AL1(FLAGIDS)	FLAGS		00226001	
0078A	C4E2D57E40404040				215	MESS32T	DC	C'DSN=	UNRECOVERABLE I/O ERROR'	00227001	
					216	*				00228001	
007AC	28				217	MESS33	DC	AL1(L'MESS33T)		00229001	
007AD	01				218	DC	AL1(FLAGIPS)	FLAGS		00230001	
007AE	D7E2E67E40404040				219	MESS33T	DC	C'PSW=	PROGRAM INTERRUPT'	00231001	
					220	*				00232001	
007D6	3F				221	MESS34	DC	AL1(L'MESS34T)		00233001	
007D7	00				222	DC	AL1(0)	FLAGS		00234001	
007D8	E5C1D3E4C540D6C6				223	MESS34T	DC	C'VALUE OF SWITCH DESIGNATOR NOT DEFINED IN DECLARATION OF SWITCH'		00235001	
					224	*				00236001	
00817	1A				225	MESS35	DC	AL1(L'MESS35T)		00237001	
00818	00				226	DC	AL1(0)	FLAGS		00238001	
00819	C2C1E2C540D5D6E3				227	MESS35T	DC	C'BASE NOT GREATER THAN ZERO'		00239001	

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References					X390 3.1.04 2012/08/17 13.21							
FLAGIDS	1	00000003			U		25	81	85	89	97	101	108	115	119	123	127	131	135	
								139	214	237	241	253								
FLAGIPS	1	00000001			U		26	198	202	206	210	218								
FLAGMC	1	00000004			U		27	101	108	167	230									
IHIERM01	19	000000B0	00000001	C	C		74	23												
MESS0	1	000000C3	00000001	R	A		76	29												
MESS0T	27	000000C5	00000001	C	C		78	76												
MESS1	1	000000E0	00000001	R	A		80	30												
MESS1T	59	000000E2	00000001	C	C		82	80												
MESS10	1	00000317	00000001	R	A		122	39												
MESS10T	25	00000319	00000001	C	C		124	122												
MESS11	1	00000332	00000001	R	A		126	40												
MESS11T	23	00000334	00000001	C	C		128	126												
MESS12	1	0000034B	00000001	R	A		130	41												
MESS12T	58	0000034D	00000001	C	C		132	130												
MESS13	1	00000387	00000001	R	A		134	42												
MESS13T	52	00000389	00000001	C	C		136	134												
MESS14	1	000003BD	00000001	R	A		138	43												
MESS14T	45	000003BF	00000001	C	C		140	138												
MESS15	1	000003EC	00000001	R	A		142	44												
MESS15T	54	000003EE	00000001	C	C		144	142												
MESS16	1	00000424	00000001	R	A		146	45												
MESS16T	56	00000426	00000001	C	C		148	146												
MESS17	1	0000045E	00000001	R	A		150	46												
MESS17T	29	00000460	00000001	C	C		152	150												
MESS18	1	0000047D	00000001	R	A		154	47												
MESS18T	39	0000047F	00000001	C	C		156	154												
MESS19	1	000004A6	00000001	R	A		158	48												
MESS19T	60	000004A8	00000001	C	C		160	158												
MESS2	1	0000011D	00000001	R	A		84	31												
MESS2T	42	0000011F	00000001	C	C		86	84												
MESS20	1	000004E4	00000001	R	A		162	49												
MESS20T	67	000004E6	00000001	C	C		164	162												
MESS21	1	00000529	00000001	R	A		166	50												

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHIERM PROCSTEP: X390

Primary input: lines 1 to 283 of SYSD.ALGOLFRT.ASM(IHIERM)

SYSLIB library records read: 0

SYSUT1 work file size: 29705 bytes

SYSUT3 work file size: 22640 bytes

SYSLIN file records written: 51

TXA000I Return code 0, elapsed time 0.16 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIERMSG 0009B1 7



**IHIERR**

**LEVEL**

**V2.M01**

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Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIERR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00106
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
				2 *		00002001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				4 *		00004001
				5 *	STATUS - LEVEL 2.1	00005001
				6 *		00006001
				7 *	FUNCTION/OPERATION -	00007001
				8 *	IF AN ERROR OCCURS DURING EXECUTION OF AN ALGOL PROGRAM	00008001
				9 *	THIS ROUTINE IS CALLED BY IHIFSARA	00009001
				10 *	A MESSAGE IS GIVEN SPECIFYING THE ERROR. IF DUMP IS	00010001
				11 *	SPECIFIED THE ROUTINE EDITS AND PRINTS THE DATA STORAGE	00011001
				12 *	AREAS CONTAINING THE VALUES OF THE IDENTIFIERS	00012001
				13 *		00013001
				14 *	ENTRY POINT - IHIERROR	00014001
				15 *		00015001
				16 *	OUTPUT-	00016001
				17 *	ERROR MESSAGES AND ALGOL DUMPS ARE PRINTED ON THE	00017001
				18 *	PRINTER AS 90 CHARACTER RECORDS WITH CONTROL CHARACTER	00018001
				19 *	IN SOME CASES A MESSAGE IS ISSUED TO THE CONSOLE	00019001
				20 *		00020001
				21 *	EXTERNAL ROUTINES -	00021001
				22 *	IHIORCL - FOR CLOSING DATASET NUMBER 1 (PRINTER)	00022001
				23 *	IHIOROP - FOR OPENING DATASET NUMBER 1	00023001
				24 *	FRDSA - ROUTINE IN IHIFSARA WHICH ISSUES FREEMAIN FOR	00024001
				25 *	THE CURRENT DATA STORAGE AREAS	00025001
				26 *		00026001
				27 *	EXIT - NORMAL - TO TERMINATION ROUTINE IN IHIFSARA	00027001
				28 *		00028001
				29 *	EXIT - ERROR - N/A	00029001
				30 *		00030001
				31 *	TABLES/WORK AREAS -	00031001
				32 *	THE CONTROL SECTION NAMED IHIGERMSG CONTAINS ALL	00032001
				33 *	MESSAGES TO BE PRINTED	00033001
				34 *		00034001
000000		00000	006E4	35	IHIERROR CSECT	00035001
				36 *		00036001
		R:5	00000	37	USING DSTABLE,R5	00037001
				38 *		00038001
				39	*****	00039001
				40 *		00040001
				41 *	REGISTER USAGE	00041001
				42 *		00042001
				43	*****	00043001
				44 *		00044001
		0000A		45	CDSA EQU 10 ADDRESS OF CURRENT DSA	00045001
		0000B		46	PBT EQU 11	00046001
				47 *		00047001
				48 *	MESSAGE FORMAT FLAGS	00048001
				49 *		00049001
		00003		50	FLAGIDS EQU X'03' INSERT DSNAME INTO MSG	00050001
		00001		51	FLAGIPS EQU X'01' INSERT PSW INTO MSG	00051001
		00004		52	FLAGMC EQU X'04' MSG CONTINUATION	00052001
				53 *		00053001
				54	SAVE (14,12),, 'IHIERROR LEVEL 2.1 &SYSDATE &SYSTIME'	00054001
000000	47F0 F026		00026	55+	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			56+	DC AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C5D9D9D6D9			57+	DC CL32 'IHIERROR LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			58+	DC CL1 '1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	59+	STM 14,12,12(13) SAVE REGISTERS	01-SAVE
				60 *		00055001
00002A	187F			61	LR R7,R15	00056001
		R:7	00000	62	USING IHIERROR,R7	00057001
00002C	D213 76B8	1000	006B8	63	MVC VFRDSA(20),0(R1) STORE EXTERNAL ADDR PARAMETERS	00058001
000032	18CD			64	LR R12,R13 R12 -> FSA	00059001
000034	41D0 74E0		004E0	65	LA R13,SAVEAREA R13 -> SAVEAREA	00060001
				66 *		00061001
				67	*****	00062001
				68 *		00063001
				69 *	TEST IF ERROR MESSAGE NUMBER IS 32 OR 41 FOR DATASET 1	00064001
				70 *		00065001
				71	*****	00066001
				72 *		00067001
000038	4660 70D6		000D6	73	BCT R6,B1	00068001
00003C	9110 501B	0001B		74	TM DSF+1,DS11 DS11 = 0 ?	00069001
000040	4780 70D6		000D6	75	BZ B1 YES	00070001
000044	9580 C0C3	000C3		76	CLI FSAERCOD(R12),X'80' I/O ERROR (32) ?	00071001
000048	4780 7094		00094	77	BE IOERR YES, EXECUTE WTO INSTRUCTION	00072001
00004C	95A4 C0C3	000C3		78	CLI FSAERCOD(R12),X'A4' DD CARD ? (41)	00073001
000050	4770 70D6		000D6	79	BNE B1 YES, EXECUTE WTO INSTRUCTION	00074001
				80 *		00075001
				81	WTO 'IHI041I SYSPRINT DD STMT INCORRECT OR MISSING',	X00076001
					ROUTCDE=11,DESC=7	00077001
000054				82+	CNOP 0,4	01-WTO
000054	4510 708E		0008E	83+	BAL 1,IHB0002A BRANCH AROUND MESSAGE	01-WTO
000058	0031			84+	DC AL2(49) TEXT LENGTH	01-WTO
00005A	8000			85+	DC B'100000000000000' MCS FLAGS	01-WTO
00005C	C9C8C9F0F4F1C940			86+	DC C'IHI041I SYSPRINT DD STMT INCORRECT OR MISSING'	01-WTO
000089	0200			87+	DC B'000000100000000' DESCRIPTOR CODES	01-WTO
00008B	0020			88+	DC B'000000000010000' ROUTING CODES	01-WTO
00008E				89+IHB0002A	DS 0H	01-WTO
00008E	0A23			90+	SVC 35	01-WTO
				91 *		00078001
000090	47F0 70CA		000CA	92	B SETOPTSW	00079001
				93 *		00080001
				94 IOERR	WTO 'IHI032I SYSPRINT UNRECOVERABLE I/O ERROR',	X00081001
					ROUTCDE=11,DESC=7	00082001
000094				95+	CNOP 0,4	01-WTO

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Loc  Object Code  Addr1 Addr2 Stmt  Source Statement                                X390 3.1.04 2012/08/17 13.21

000094 4510 70C8          000C8  96+IOERR  BAL  1,IHB0003A          BRANCH AROUND MESSAGE 01-WTO
000098 002C          97+      DC  AL2(44)          TEXT LENGTH          01-WTO
00009A 8000          98+      DC  B'1000000000000000' MCS FLAGS          01-WTO
00009C C9C8C9F0F3F2C940  99+      DC  C'IHI032I SYSPRINT UNRECOVERABLE I/O ERROR' 01-WTO
0000C4 0200          100+     DC  B'000001000000000' DESCRIPTOR CODES 01-WTO
0000C6 0020          101+     DC  B'000000000100000' ROUTING CODES    01-WTO
0000C8          102+IHB0003A DS  0H          01-WTO
0000C8 0A23          103+     SVC  35          01-WTO
          104 *          00083001
0000CA 9602 C0C2        000C2  105 SETOPTSW OI  OPTSW(R12),X'02' SET SWITCH IN FSA 00084001
0000CE 947F C0C2        000C2  106      NI  DTSW(R12),X'7F' REMOVE DUMP SWITCH 00085001
0000D2 47F0 71F2        001F2  107      B  SPDAFREE          00086001
          108 *          00087001
          109 *****          00088001
          110 *          00089001
          111 *          EDIT AND PRINT ERROR MESSAGE 00090001
          112 *          00091001
          113 *****          00092001
          114 *          00093001
0000D6 4180 6001        00001  115 B1  LA  R8,1(R6)          SAVE DSNR FOR EDITING IF NEEDED 00094001
0000DA 585C 00AC        000AC  116      L  R5,ADSTAB(R12) R5 -> ADSTAB IN FSA 00095001
0000DE 4150 5028        00028  117      LA  R5,DSTABLEL+4(R5) R5 -> DSTABLE ENTRY FOR DS NO 1 00096001
0000E2 4160 0001        00001  118      LA  R6,1          SET DSNR TO 1 00097001
0000E6 9601 501B        0001B  119      OI  DSF+1,DS15 FLAG CLOSE FROM IHIERR 00098001
0000EA 58F0 76C4        006C4  120      L  R15,VIORCP CLOSE ALL DATASETS 00099001
0000EE 05EF          121      BALR R14,R15 00100001
0000F0 9610 501B        0001B  122 SETDS11 OI  DSF+1,DS11 DS11=1 TO INDICATE IHIERR-ROUT 00101001
0000F4 9632 501A        0001A  123      OI  DSF,DS2-DS3+DS6 DS2, DS3, DS6 = 1 00102001
0000F8 943F 501A        0001A  124      NI  DSF,255-DS0-DS1 DS0, DS1 = 0 00103001
0000FC 58F0 76C0        006C0  125      L  R15,VIOROP R15 -> IHIOROP 00104001
000100 05EF          126      BALR R14,R15 OPEN SYSPRINT 00105001
000102 9240 7543        00543  127      MVI BUFFER,C' ' PRINT ONE BLANK LINE TO PREVENT 00106001
000106 D258 7544 7543 00544 00543 128      MVC BUFFER+1(L'BUFFER-1),BUFFER OVERPRINTING 00107001
00010C 4530 7478        00478  129      BAL  R3,OUTPUT 00108001
000110 1B22          130      SR  R2,R2 00109001
000112 432C 00C3        000C3  131      IC  R2,FSAERCOD(R12) GET ADDR OF ERROR MESSAGE 00110001
000116 5860 76CC        006CC  132      L  R6,VERMSG R6 -> IHIERMSG MODULE 00111001
00011A 5862 6000        00000  133      L  R6,0(R2,R6) R6 -> MSG TEXT BLOCK 00112001
00011E 8820 0002        00002  134      SRL R2,2 CONVERT MESSAGE NUMBER TO 00113001
000122 4E20 7528        00528  135      CVD R2,WORKD DECIMAL FOR PRINTING 00114001
000126 5830 76D0        006D0  136      L  R3,VERM01 R3 -> 'IHI0XXI SC= ' STRING 00115001
00012A F317 3004 7528 00004 00528 137      UNPK 4(2,R3),WORKD MOVE IN MSG NUMBER 00116001
000130 96F0 3005        00005  138      OI  5(R3),X'F0' MAKE PRINTABLE 00117001
000134 4820 C0C0        000C0  139      LH  R2,SCRC5(R12) CONVERT SEMICOLON COUNTER TO 00118001
000138 4E20 7528        00528  140      CVD R2,WORKD DECIMAL FOR PRINTING 00119001
00013C D205 300C 759D 0000C 0059D 141      MVC 12(L'SCPATTN,R3),SCPATTN MOVE IN EDIT PATTERN 00120001
000142 DE05 300C 752D 0000C 0052D 142      ED 12(L'SCPATTN,R3),WORKD+5 FORMAT SEMICOLON COUNT 00121001
000148 9103 6001        00001  143      TM 1(R6),FLAGIDS DSNR TO BE INSERTED ? 00122001
00014C 47E0 71B2        001B2  144      BNO NOT1617A NO, BRANCH 00123001
000150 4280 7542        00542  145      STC R8,DSNUMBER YES, STORE DATASET NUMBER 00124001
000154 9510 7542        00542  146      CLI DSNR,16 DSN = 16 ? 00125001
000158 4770 7166        00166  147      BNE DSN17 NO, BRANCH 00126001
00015C D205 6002 76D8 00002 006D8 148      MVC 2(6,R6),=C'SYSUT2' SYSUT2 00127001
000162 47F0 71B6        001B6  149      B  PSWDSN 00128001
          150 *          00129001
000166 4740 71AA        001AA  151 DSN17 BL  NOT1617 00130001
00016A D205 6002 76DE 00002 006DE 152      MVC 2(6,R6),=C'SYSUT1' SYSUT1 00131001
000170 47F0 71B6        001B6  153      B  PSWDSN 00132001
          154 *          00133001
000174 4E80 7528        00528  155 TAKEDSN CVD R8,WORKD CONVERT DATASET NUMBER TO 00134001
000178 F317 6006 7528 00006 00528 156      UNPK 6(2,R6),WORKD DECIMAL FOR PRINTING 00135001
00017E 96F0 6007        00007  157      OI  7(R6),X'F0' MAKE PRINTABLE 00136001
000182 47F0 71B6        001B6  158      B  PSWDSN 00137001
          159 *          00138001
000186 F384 6007 C0B4 00007 000B4 160 TAKEPSW UNPK 7(9,R6),PGOPSW(5,R12) UNPACK OLD PSW FOR PRINTING 00139001
00018C DC07 6007 7440 00007 00440 161      TR  7(8,R6),TRTABLE-240 00140001
000192 9240 600F        0000F  162      MVI 15(R6),C' ' 00141001
000196 F384 6010 C0B8 00010 000B8 163      UNPK 16(9,R6),PGOPSW+4(5,R12) 00142001
00019C 9240 6018        00018  164      MVI 24(R6),C' ' 00143001
0001A0 DC07 6010 7440 00010 00440 165      TR  16(8,R6),TRTABLE-240 00144001
0001A6 47F0 71B6        001B6  166      B  PSWDSN 00145001
          167 *          00146001
0001AA 9103 6001        00001  168 NOT1617 TM 1(R6),FLAGIDS INSERT DATASET NUMBER ? 00147001
0001AE 4710 7174        00174  169      BO  TAKEDSN YES, BRANCH 00148001
0001B2 4740 71B6        001B6  170 NOT1617A BM TAKEPSW 00149001
          171 *          00150001
0001B6 D212 7543 3000 00543 00000 172 PSWDSN MVC BUFFER(19),0(R3) MOVE MESSAGE INTO BUFFER 00151001
0001BC 1B22          173      SR  R2,R2 00152001
0001BE 4326 0000        00000  174 LINE2 IC  R2,0(R6) GET L'MSG TEXT 00153001
0001C2 0620          175      BCTR R2,0 DECR FOR EXE 00154001
0001C4 4420 71DC        001DC  176      EX  R2,EXMVC MOVE MSG TEXT 00155001
0001C8 9104 6001        00001  177      TM 1(R6),FLAGMC MSG HAS CONTINUATION ? 00156001
0001CC 4780 71E2        001E2  178      BZ  ENDLINE NO, BRANCH 00157001
0001D0 4530 7478        00478  179      BAL  R3,OUTPUT 00158001
0001D4 4162 6003        00003  180      LA  R6,3(R2,R6) R6 -> NEXT LINE OF MESSAGE 00159001
0001D8 47F0 71BE        001BE  181      B  LINE2 LOOP FOR CONTINUATION LINE 00160001
          182 *          00161001
0001DC D200 7556 6002 00556 00002 183 EXMVC MVC BUFFER+19(0),2(R6) EXE MVC 00162001
          184 *          00163001
0001E2 9604 7540        00540  185 ENDLINE OI  FLAG,X'04' 00164001
0001E6 4530 7478        00478  186      BAL  R3,OUTPUT 00165001
0001EA 92F0 7541        00541  187      MVI SPACE,C'0' SET ASA SKIP CHARACTER 00166001
0001EE 9201 74AD        004AD  188      MVI SCOUNT+3,X'01' INSERT NEW STEP LENGTH FOR S 00167001
          189 *          00168001
          190 *****          00169001
          191 *          00170001
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Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				192 *		GO THROUGH THE RETURN ADDR STACK	00171001
				193 *		IF A BLOCK OR PROCEDURE ENTRY IS FOUND THE DATA STORAGE	00172001
				194 *		AREAS ARE EDITED AND FSA IS CALLED FOR ISSUEING	00173001
				195 *		FREEMAIN	00174001
				196 *			00175001
				197 *****			00176001
				198 *			00177001
0001F2	5810 76BC		006BC	199 SPDAFREE	L	R1,VSPDAP FREEMAIN FOR SPDA AREAS	00178001
0001F6	5820 1000		00000	200	L	R2,0(,R1)	00179001
0001FA	1212			201 MORESPDA	LTR	R1,R2	00180001
0001FC	4780 7212		00212	202	BZ	MORERAS	00181001
000200	5820 1000		00000	203	L	R2,0(,R1)	00182001
				204 *			00183001
				205		FREEMAIN R, LV=64, A=(R1)	00184001
				206+*		OS/VS2 RELEASE 3 VERSION -- 10/25/74	01-FREEM
000204	4100 0040		00040	207+	LA	0,64(0,0) LOAD LENGTH	01-FREEM
000208	4110 1000		00000	208+	LA	1,0(0,R1) LOAD AREA ADDRESS	01-FREEM
00020C	0A0A			209+	SVC	10 ISSUE FREEMAIN SVC	01-FREEM
				210 *			00185001
00020E	47F0 71FA		001FA	211	B	MORESPDA LOOP AROUND	00186001
				212 *			00187001
000212	58EC 00C8		000C8	213 MORERAS	L	R14,RASPT(R12) TEST IF MORE ENTRIES IN RAS	00188001
000216	59EC 00C4		000C4	214 MORERASA	C	R14,RASSTART(R12)	00189001
00021A	47D0 725A		0025A	215	BNH	ENDOFR	00190001
00021E	9500 E000		00000	216	CLI	0(R14),X'00'	00191001
000222	4780 7232		00232	217	BE	PREENTRY	00192001
000226	9180 C0C2		000C2	218	TM	DTSW(R12),X'80'	00193001
00022A	4780 7240		00240	219	BZ	RELDSA	00194001
00022E	47F0 7262		00262	220	B	EDIT	00195001
				221 *			00196001
000232	4120 0008		00008	222 PREENTRY	LA	R2,8 GET PRECEDING ENTRY IN RAS	00197001
000236	1BE2			223	SR	R14,R2	00198001
000238	50EC 00C8		000C8	224	ST	R14,RASPT(R12) NEW ADDR TO RASTP IN FSA	00199001
00023C	47F0 7216		00216	225	B	MORERASA	00200001
				226 *			00201001
000240	18DC			227 RELDSA	LR	R13,R12 RELEASE CURRENT DATA STORAGE	00202001
000242	58A0 E000		00000	228	L	CDSA,0(,R14) AREA	00203001
000246	58B0 A010		00010	229	L	PBT,16(,CDSA)	00204001
00024A	5810 76B8		006B8	230	L	R1,VFRDSA	00205001
00024E	05F1			231	BALR	R15,R1	00206001
000250	18CD			232	LR	R12,R13	00207001
000252	41D0 74E0		004E0	233	LA	R13,SAVEAREA	00208001
000256	47F0 7212		00212	234	B	MORERAS	00209001
				235 *			00210001
00025A	18DC			236 ENDOFR	LR	R13,R12	00211001
				237 *			00212001
				238		RETURN (14,12) TO TERMINATION ROUTINE IN FSA	00213001
00025C	98EC D00C		0000C	239+	LM	14,12,12(13) RESTORE THE REGISTERS	01-RETUR
000260	07FE			240+	BR	14 RETURN	01-RETUR
				241 *			00214001
				242 *****			00215001
				243 *			00216001
				244 *		PRINT CURRENT DATA STORAGE AREAS IF DUMP IS SPECIFIED	00217001
				245 *			00218001
				246 *****			00219001
				247 *			00220001
				248 *		BLOCK NUMBER AND TYPE OF BLOCK MOVED INTO TEXT	00221001
				249 *			00222001
				250 *****			00223001
				251 *			00224001
000262	58A0 E000		00000	252 EDIT	L	CDSA,0(,R14) POINTER TO CURRENT DSA	00225001
000266	58B0 A010		00010	253	L	PBT,16(,CDSA) ADDR OF PB TAB	00226001
00026A	D203 75B0	B004 005B0	00004	254	MVC	ERM02M(4),4(PBT) NAME OF LOAD MODULE	00227001
000270	4AB0 A008		00008	255	AH	PBT,8(,CDSA) TYPE OF BLOCK	00228001
000274	1B22			256	SR	R2,R2	00229001
000276	4320 B006		00006	257	IC	R2,6(,PBT)	00230001
00027A	8920 0002		00002	258	SLL	R2,2	00231001
00027E	4162 75E7		005E7	259	LA	R6,ERM02BK(R2)	00232001
000282	D20F 75D7	6000 005D7	00000	260	MVC	ERM02TP,0(R6) MOVE IN BLOCK TYPE TEXT	00233001
000288	482A 0008		00008	261	LH	R2,8(CDSA) CONVERT BLOCK NUMBER TO DECIMAL	00234001
00028C	8820 0003		00003	262	SRL	R2,3 FOR PRINTING	00235001
000290	4E20 7528		00528	263	CVD	R2,WORKD	00236001
000294	D203 75D1	75A3 005D1	005A3	264	MVC	ERM02BN,BNPATTN	00237001
00029A	DE03 75D1	752E 005D1	0052E	265	ED	ERM02BN,WORKD+6	00238001
0002A0	9604 7540		00540	266	OI	FLAG,X'04'	00239001
0002A4	D23F 7543	75A7 00543	005A7	267	MVC	BUFFER(ERM02L),IHIERM02 MOVE MSG INTO BUFFER	00240001
0002AA	4530 7478		00478	268	BAL	R3,OUTPUT	00241001
				269 *			00242001
				270 *****			00243001
				271 *			00244001
				272 *		EDIT THE FORMAL PARAMETERS IF PROCEDURE BLOCK	00245001
				273 *			00246001
				274 *****			00247001
				275 *			00248001
0002AE	1B11			276	SR	R1,R1	00249001
0002B0	4190 A018		00018	277	LA	R9,24(,CDSA) FIRST BYTE TO BE EDITED	00250001
0002B4	91FF B006		00006	278	TM	6(PBT),X'FF'	00251001
0002B8	4780 72E6		002E6	279	BZ	NOFPARAM	00252001
0002BC	D210 754C	7617 0054C	00617	280	MVC	BUFFER+9(L'KFORMAL),KFORMAL HANDLING FORMAL PARAMETERS	00253001
0002C2	1B55			281	SR	R5,R5	00254001
0002C4	4350 B007		00007	282	IC	R5,7(PBT) PARAMETERS BY EIGHT	00255001
0002C8	8950 0003		00003	283	SLL	R5,3 MULTIPLY NUMBER OF FORMAL	00256001
0002CC	9108 B006		00006	284	TM	6(PBT),X'08'	00257001
0002D0	4780 72D8		002D8	285	BZ	NOTYPE	00258001
0002D4	4150 5008		00008	286	LA	R5,8(,R5) ADD EIGHT IF TYPE PROCEDURE	00259001
0002D8	1A59			287 NOTYPE	AR	R5,R9 END OF FORMAL PARAMETERS IN R5	00260001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0002DA	4540 7348		00348	288	BAL	R4, TRANSDAT	PRINT FORMAL PARAMETERS 00261001
0002DE	9604 7540	00540		289	OI	FLAG,X'04'	SET SKIP FLAG 00262001
0002E2	4530 7478		00478	290	BAL	R3, OUTPUT	LAST PARAMETERS 00263001
0002E6	4820 B004		00004	291	NOFPARAM	R2, 4(,PBT)	GET END OF OBJECT TIME STACK 00264001
0002EA	4152 A000		00000	292	LA	R5, 0(R2,CDSA)	00265001
0002EE	1995			293	CR	R9, R5	00266001
0002F0	47B0 73CA		003CA	294	BNL	ARRAYS	00267001
				295	*		00268001
				296	*****		00269001
				297	*		00270001
				298	*	EDIT OBJECT TIME STACK	00271001
				299	*		00272001
				300	*****		00273001
				301	*		00274001
0002F4	D229 754C 7628	0054C	00628	302	MVC	BUFFER+9(L'IHIERM05),IHIERM05	00275001
0002FA	947D 7540	00540		303	NI	FLAG,X'7D'	00276001
0002FE	1211			304	LTR	R1, R1	00277001
000300	4770 7318		00318	305	BNZ	NOTZERO	00278001
000304	47F0 730C		0030C	306	B	MULT32A	00279001
				307	*		00280001
000308	8C00 001B		0001B	308	MULT32	SRDL R0, 27	00281001
00030C	9680 7540	00540		309	MULT32A	OI FLAG,X'80'	00282001
000310	4140 72DE		002DE	310	LA	R4, NFPARM	00283001
000314	47F0 7348		00348	311	B	TRANSDAT	00284001
				312	*		00285001
000318	8D00 001B		0001B	313	NOTZERO	SLDL R0, 27	00286001
00031C	1211			314	LTR	R1, R1	00287001
00031E	4780 7308		00308	315	BZ	MULT32	00288001
000322	8C00 001B		0001B	316	SRDL	R0, 27	00289001
000326	1995			317	CR	R9, R5	00290001
000328	47B0 72DE		002DE	318	BNL	NFPARM	00291001
00032C	4530 7478		00478	319	BAL	R3, OUTPUT	00292001
000330	4210 7542		00542	320	STC	R1, IF16	00293001
000334	940F 7542	00542		321	NI	IF16,X'0F'	00294001
000338	4770 7340		00340	322	BNZ	LABAA	00295001
00033C	4180 8001		00001	323	LA	R8, 1(,R8)	00296001
000340	4540 7398		00398	324	LABAA	BAL R4, INSETDA	00297001
000344	47F0 72DE		002DE	325	B	NFPARM	00298001
				326	*		00299001
				327	*****		00300001
				328	*		00301001
				329	*	CONVERSION OF DATA FOR PRINTING AND EDITING OF THE OUTPUT	00302001
				330	*		00303001
				331	*****		00304001
				332	*		00305001
000348	1995			333	TRANSDAT	CR R9, R5	00306001
00034A	07B4			334	BNLR	R4	00307001
00034C	8D00 001B		0001B	335	SLDL	R0, 27	00308001
000350	1211			336	LTR	R1, R1	00309001
000352	4780 7388		00388	337	BZ	SETDISP	00310001
000356	8D00 0001		00001	338	SLDL	R0, 1	00311001
00035A	1211			339	LTR	R1, R1	00312001
00035C	4770 7364		00364	340	BNZ	SHIFTB	00313001
000360	4180 8001		00001	341	LA	R8, 1(,R8)	00314001
000364	8C00 001C		0001C	342	SHIFTB	SRDL R0, 28	00315001
000368	F384 8000 9000	00000	00000	343	TRANS	UNPK 0(9,R8),0(5,R9)	00316001
00036E	9240 8008	00008		344	MVI	8(R8),C' '	00317001
000372	DC07 8000 7440	00000	00440	345	TR	0(8,R8),TRTABLE-240	00318001
000378	4111 0004		00004	346	LA	R1, 4(R1)	00319001
00037C	4188 000A		0000A	347	LA	R8, 10(R8)	00320001
000380	4199 0004		00004	348	LA	R9, 4(R9)	00321001
000384	47F0 7348		00348	349	B	TRANSDAT	00322001
				350	*		00323001
				351	*****		00324001
				352	*		00325001
				353	*	DISPLACEMENT FOR DATA EDITED	00326001
				354	*		00327001
				355	*****		00328001
				356	*		00329001
000388	8C00 001B		0001B	357	SETDISP	SRDL R0, 27	00330001
00038C	4530 7478		00478	358	BAL	R3, OUTPUT	00331001
000390	9102 7540	00540		359	TM	FLAG,X'02'	00332001
000394	4710 73C4		003C4	360	BO	ADDR	00333001
000398	4130 1018		00018	361	INSETDA	LA R3, 24(,R1)	00334001
00039C	5030 7528		00528	362	INSETD	ST R3, WORKD	00335001
0003A0	F363 7543 7529	00543	00529	363	UNPK	BUFFER(7),WORKD+1(4)	00336001
0003A6	9640 7549	00549		364	OI	BUFFER+6,C' '	00337001
0003AA	DC05 7543 7440	00543	00440	365	TR	BUFFER(6),TRTABLE-240	00338001
0003B0	9180 7540		00540	366	TM	FLAG,X'80'	00339001
0003B4	4780 73BC		003BC	367	BZ	INSETDB	00340001
0003B8	4180 754C		0054C	368	LA	R8, BUFFER+9	00341001
0003BC	9680 7540	00540		369	INSETDB	OI FLAG,X'80'	00342001
0003C0	47F0 7368		00368	370	B	TRANS	00343001
				371	*		00344001
0003C4	1831			372	ADDR	LR R3, R1	00345001
0003C6	47F0 739C		0039C	373	B	INSETD	00346001
				374	*		00347001
				375	*****		00348001
				376	*		00349001
				377	*	EDITING OF DECLARED ARRAYS	00350001
				378	*		00351001
				379	*****		00352001
				380	*		00353001
0003CA	BF2F A00C		0000C	381	ARRAYS	ICM R2, B'1111',12(CDSA)	00354001
0003CE	4780 7414		00414	382	BZ	VALUE	00355001
0003D2	9602 7540	00540		383	MOREARRY	OI FLAG,X'02'	00356001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0003D6	5892 A008		00008	384	VARRSMF	L R9,8(R2,CDSA)	STARTING ADDR OF ARRAY
0003DA	5020 7528		00528	385	ST	R2,WORKD	UNPACK HEXADECIMAL DISPLACEMENT
0003DE	F363 766C 7529	0066C	00529	386	UNPK	ERM06SMF,WORKD+1(4)	OF SMF FOR PRINTING
0003E4	9240 7672	00672		387	MVI	ERM06SMF+6,C'	
0003E8	DC05 766C 7440	0066C	00440	388	TR	ERM06SMF(6),TRTABLE-240	
0003EE	D22E 754C 7652	0054C	00652	389	MVC	BUFFER+9(ERM06L),IHIERM06	
0003F4	5852 A00C		0000C	390	L	R5,12(R2,CDSA)	END ADDR OF ARRAY
0003F8	1B11			391	SR	R1,R1	
0003FA	4540 7348		00348	392	BAL	R4,TRANSDAT	
0003FE	5822 A000		00000	393	L	R2,0(R2,CDSA)	GET CHAINING ADDR
000402	4120 2000		00000	394	LA	R2,0(R2)	
000406	9604 7540	00540		395	OI	FLAG,X'04'	SET SKIP FLAG
00040A	4530 7478		00478	396	BAL	R3,OUTPUT	PRINT LAST LINE
00040E	1222			397	LTR	R2,R2	
000410	4770 73D2		003D2	398	BNZ	MOREARRY	
				399	*		
				400		*****	
				401	*		
				402	*	EDITING OF VALUE ARRAYS	
				403	*		
				404		*****	
				405	*		
000414	482A 000A		0000A	406	VALUE	LH R2,10(CDSA)	TEST FOR VALUE ARRAYS
000418	1222			407	LTR	R2,R2	
00041A	4780 7468		00468	408	BZ	ENDVALAR	
00041E	9602 7540	00540		409	VALARRAY	OI FLAG,X'02'	
000422	5020 7528		00528	410	ST	R2,WORKD	UNPACK HEX DISPLACEMENT OF
000426	F363 769B 7529	0069B	00529	411	UNPK	ERM07SMF,WORKD+1(4)	SMF FOR PRINTING
00042C	9240 76A1	006A1		412	MVI	ERM07SMF+6,C'	
000430	DC05 769B 7440	0069B	00440	413	TR	ERM07SMF(6),TRTABLE-240	
000436	D235 754C 7681	0054C	00681	414	MVC	BUFFER+9(ERM07L),IHIERM07	TO BUFFER
00043C	5892 A000		00000	415	L	R9,0(R2,CDSA)	ADDR OF SMF
000440	5850 900C		0000C	416	L	R5,12(R9)	END OF ARRAY
000444	5890 9008		00008	417	L	R9,8(R9)	BEGINNING OF ARRAY
000448	1B11			418	SR	R1,R1	
00044A	4540 7348		00348	419	BAL	R4,TRANSDAT	PRINT DATA
00044E	9604 7540	00540		420	OI	FLAG,X'04'	
000452	4530 7478		00478	421	BAL	R3,OUTPUT	PRINT LAST LINE
000456	5892 A000		00000	422	L	R9,0(R2,CDSA)	GET CHAINING DISPLACEMENT
00045A	4820 9002		00002	423	LH	R2,2(R9)	
00045E	1222			424	LTR	R2,R2	
000460	4780 7468		00468	425	BZ	ENDVALAR	
000464	47F0 741E		0041E	426	B	VALARRAY	
				427	*		
000468	4530 7478		00478	428	ENDVALAR	BAL R3,OUTPUT	PRINT ONE EXTRA BLANK LINE
00046C	9604 7540	00540		429	OI	FLAG,X'04'	
000470	94FD 7540	00540		430	NI	FLAG,X'FD'	RESET ARRAY FLAG
000474	47F0 7240		00240	431	B	RELD5A	
				432	*		
				433		*****	
				434	*		
				435	*	PRINT THE MSG BUFFER BY USING THE IHIORNX ROUTINE	
				436	*		
				437		*****	
				438	*		
000478	9058 C028		00028	439	OUTPUT	STM R5,R8,40(R12)	SAVE REGS USED
00047C	4160 0001		00001	440	LA	R6,1	SET THE DATASET NUMBER TO 1
000480	585C 00AC		000AC	441	L	R5,ADSTAB(R12)	ENTRY OF DSN=1 IN DSTAB
000484	4150 5028		00028	442	LA	R5,DSTABLE+4(R5)	R5 -> DSTABLE ENTRY FOR DSN 1
000488	5880 5004		00004	443	L	R8,R	
00048C	9610 501A	0001A		444	OI	DSF,DS3	SET DS3 = 1
000490	D259 8000 7543	00000	00543	445	MVC	0(L'BUFFER,R8),BUFFER	MOVE BUFFER TO OUTPUT
000496	180E			446	LR	R0,R14	SAVE ADDR OF RETURN STACK PTR
000498	58F0 76C8		006C8	447	L	R15,VIORNX	
00049C	05EF			448	BALR	R14,R15	CALL NEXT RECORD ROUTINE
00049E	9104 7540	00540		449	TM	FLAG,X'04'	
0004A2	4780 74CA		004CA	450	BZ	NOFLAG	
0004A6	4860 5014		00014	451	LH	R6,S	INCREASE S-COUNTER IN DSTAB
0004AA	4160 6002		00002	452	SCOUNT	LA R6,2(R6)	
0004AE	4060 5014		00014	453	STH	R6,S	
0004B2	5850 5004		00004	454	L	R5,R	SKIP LINES IF SKIP FLAG IS SET
0004B6	0650			455	BCTR	R5,0	AND NOT TIME FOR NEW PAGE
0004B8	95F1 5000	00000		456	CLI	0(R5),C'1'	SKIP TO NEW PAGE ?
0004BC	4780 74C6		004C6	457	BE	RESFLAG	YES, BRANCH
0004C0	D200 5000 7541	00000	00541	458	MVC	0(1,R5),SPACE	
0004C6	94FB 7540	00540		459	RESFLAG	NI FLAG,X'FB'	RESET SKIP FLAG
0004CA	18E0			460	NOFLAG	LR R14,R0	RESTORE RETURN STACK PTR
0004CC	1B00			461	SR	R0,R0	
0004CE	9240 7543	00543		462	MVI	BUFFER,C'	BLANK BUFFER AFTER PRINTING
0004D2	D258 7544 7543	00544	00543	463	MVC	BUFFER+1(L'BUFFER-1),BUFFER	
0004D8	9858 C028		00028	464	LM	R5,R8,40(R12)	
0004DC	07F3			465	BR	R3	RETURN TO CALLER
				466	*		
0004DE	0000						
0004E0	0000000000000000			467	SAVEAREA	DC 18F'0'	
				468	*		
000528	0000000000000000			469	WORKD	DC D'0'	
000530	F0F1F2F3F4F5F6F7			470	TRTABLE	DC C'0123456789ABCDEF'	TRANSLATION TABLE
000540	84			471	FLAG	DC X'84'	
000541	60			472	SPACE	DC C'-'	ASA CNTL CHAR
000542				473	IF16	DS 0C	
000542	00			474	DSNUMBER	DC X'00'	
000543	4040404040404040			475	BUFFER	DC CL90'	MESSAGE BUFFER
00059D	402020202020			476	SCPATTN	DC X'402020202020'	PATTERN FOR SEMICOLON COUNT
0005A3	40202020			477	BNPATTN	DC X'40202020'	PATTERN FOR BLOCK NUMBER
				478	*		



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				479 *		HEADINGS	00452001
				480 *			00453001
0005A7	D4D6C4E4D3C5407E			481 IHIERM02	DC	C'MODULE = '	00454001
0005B0	4040404040404040			482 ERM02M	DC	CL8' '	00455001
0005B8	4040D7D9D6C7D9C1			483	DC	C' PROGRAM BLOCK NUMBER = '	00456001
0005D1	40404040			484 ERM02BN	DC	C' ' '	00457001
0005D5	404D			485	DC	C' (' '	00458001
0005D7	4040404040404040			486 ERM02TP	DC	CL16' ' '	00459001
		00040		487 ERM02L	EQU	*-IHIERM02 L'IHIERM02	00460001
				488 *			00461001
0005E7	C2D3D6C3D25D4040			489 ERM02BK	DC	CL16'BLOCK) ' *	00462001
0005F7	D7D9D6C3C5C4E4D9			490	DC	CL16'PROCEDURE) '	00463001
000607	E3E8D7C540D7D9D6			491	DC	CL16'TYPE PROCEDURE) ' V	00464001
				492 *			00465001
000617	C6D6D9D4C1D340D7			493 KFORMAL	DC	C'FORMAL PARAMETERS'	00466001
				494 *			00467001
000628	C4C5C3D3C1D9C5C4			495 IHIERM05	DC	C'DECLARED IDENTIFIERS AND OBJECT TIME STACK'	00468001
				496 *			00469001
000652	E2D4C640C4C9E2D7			497 IHIERM06	DC	C'SMF DISPLACEMENT IN DSA = '	00470001
00066C	4040404040404040			498 ERM06SMF	DC	CL7' ' '	00471001
000673	C4C5C3D3C1D9C5C4			499	DC	C'DECLARED ARRAY'	00472001
		0002F		500 ERM06L	EQU	*-IHIERM06 L'IHIERM06	00473001
				501 *			00474001
000681	E2D4C640C4C9E2D7			502 IHIERM07	DC	C'SMF DISPLACEMENT IN DSA = '	00475001
00069B	4040404040404040			503 ERM07SMF	DC	CL7' ' '	00476001
0006A2	C1D9D9C1E840C3C1			504	DC	C'ARRAY CALLED BY VALUE'	00477001
		00036		505 ERM07L	EQU	*-IHIERM07 L'IHIERM07	00478001
				506 *			00479001
				507		*****	00480001
				508 *			00481001
				509 *		EXTERNAL ADDRs	00482001
				511		*****	00484001
				512 *			00485001
				513 *		PASSED IN PARAMETER LIST FROM CALLER IHIFSA	00486001
				514 *			00487001
0006B7	00						
0006B8	00000000			515 VFRDSA	DC	A(0) V(FRDSA)	00488001
0006BC	00000000			516 VSPDAP	DC	A(0) V(SPDAP)	00489001
0006C0	00000000			517 VIOROP	DC	A(0) V(IHIOROP)	00490001
0006C4	00000000			518 VIORCP	DC	A(0) V(IHIORCP)	00491001
0006C8	00000000			519 VIORNx	DC	A(0) V(IHIORNx)	00492001
				520 *			00493001
				521 *		ADDRS IN IHIERMSG MODULE	00494001
				522 *			00495001
0006CC	00000000			523 VERMSG	DC	V(IHIERMSG)	00496001
0006D0	00000000			524 VERM01	DC	V(IHIERM01)	00497001
				525 *			00498001
000000		00000 00120		526 FSARE	DSECT		00499001
				527 *			00500001
				528		COPY FSAREA	00501001
				529=*			00001001
				530=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				531=*			00003001
				532=*		STATUS - LEVEL 2.1	00004001
				533=*			00005001
				534=*		*****	00006001
				535=*			00007001
				536=*		COMMON DATA AREA	00008001
				537=*			00009001
				538=*		FSAREA	00010001
				539=*			00011001
				540=*		*****	00012001
				541=*			00013001
				542=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				543=*		MODULES DURING THE EXECUTION	00015001
				544=*			00016001
				545=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				546=*		SUBROUTINES) BY R12	00018001
				547=*			00019001
		00000		548=FSAREA	EQU	*	00020001
				549=*			00021001
				550=*		SAVE AREAS	00022001
				551=*			00023001
000000				552=	DS	18F STANDARD SAVE AREA	00024001
		00048		553=ASAVE	EQU	*-FSAREA ALTERNATE SAVE AREA USED BY	00025001
000048				554=	DS	18F CERTAIN SUBROUTINES	00026001
				555=*			00027001
				556=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				557=*			00029001
		00090		558=FCTVALST	EQU	*-FSAREA TEMPORARY STORAGE FOR	00030001
000090				559=	DS	D FUNCTION VALUES	00031001
		00098		560=ASTLOC	EQU	*-FSAREA DISPL FOR ADDR OF STAND LOCTN	00032001
000098	00000090			561=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		562=BRRST	EQU	*-FSAREA TEMPORARY SAVE REG BRR	00034001
		0009C		563=HW	EQU	BRRST TEMPORARY HALFWORD STORAGE	00035001
00009C				564=	DS	F	00036001
		000A0		565=PROLREG	EQU	*-FSAREA STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				566=	DS	2A A PROCEDURE IS FORMAL PARAM	00038001
				567=*			00039001
				568=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				569=*			00041001
0000A8				570=	DS	0H	00042001
0000A8	00			571=	DC	X'00'	00043001
		000A9		572=PROLPBN	EQU	*-FSAREA STORAGE FOR CALLED PBN	00044001
0000A9	00			573=	DC	X'00'	00045001



D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000AA	0008	000AA		574=EIGHT	EQU	*-FSAREA	CONST FOR REDUCING RAS
				575=	DC	H'8'	
				576=*			
0000AC				577=	DS	0F	
		000AC		578=ADSTAB	EQU	*-FSAREA	ADDR OF DSTABLE
0000AC				579=	DS	A	IN THE OBJECT PROGRAM
		000B0		580=ANOTTAB	EQU	*-FSAREA	ADDR OF NOTE TABLE
0000B0				581=	DS	A	(INSERTED BY THE OPEN ROUTINE)
				582=*			
		000B4		583=IHIFSAST	EQU	*	
		000B4		584=PGOPSW	EQU	*-FSAREA	PROGRAM CHECK OLD PSW
0000B4				585=	DS	2F	
		000BC		586=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR
0000BC	00000000			587=	DC	F'0'	
		000C0		588=SCRC	EQU	*-FSAREA	SEMICOLON NUMBER
0000C0				589=	DS	H	
		000C2		590=DTSW	EQU	*-FSAREA	OPTION SWITCHES
		000C2		591=OPTSW	EQU	DTSW	
0000C2	00			592=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20
		000C3		593=FSAERCOD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE
0000C3				594=	DS	C	
				595=*			
				596=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	
				597=*			
0000C4				598=	DS	0F	
		000C4		599=IHIFSARS	EQU	*	
		000C4		600=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8
0000C4				601=	DS	F	
		000C8		602=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP
0000C8				603=	DS	F	
		000CC		604=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8
0000CC				605=	DS	F	
		000D0		606=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM
0000D0				607=	DS	F	
				608=*			
				609=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	
				610=*			
0000D4				611=BRLIST	DS	0F	
		000D4		612=CAP1	EQU	*-FSAREA	FIRST PART CAPS
0000D4	4700 0000		00000	613=	NOP	0	
		000D8		614=CAP2	EQU	*-FSAREA	SECOND PART CAPS
0000D8	4700 0000		00000	615=	NOP	0	
		000DC		616=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY
		000DC		617=PROLOGFP	EQU	PROLOGP	
0000DC	4700 0000		00000	618=	NOP	0	
		000E0		619=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY
0000E0	4700 0000		00000	620=	NOP	0	
		000E4		621=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM
0000E4	4700 0000		00000	622=	NOP	0	
		000E8		623=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY
0000E8	4700 0000		00000	624=	NOP	0	
		000EC		625=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY
0000EC	4700 0000		00000	626=	NOP	0	
		000F0		627=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3
0000F0	4700 0000		00000	628=	NOP	0	
		000F4		629=CSWE1	EQU	*-FSAREA	FIRST PART CSWES
0000F4	4700 0000		00000	630=	NOP	0	
		000F8		631=CSWE2	EQU	*-FSAREA	SECOND PART CSWES
0000F8	4700 0000		00000	632=	NOP	0	
		000FC		633=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE
0000FC	4700 0000		00000	634=	NOP	0	
		00100		635=TRACE	EQU	*-FSAREA	
000100	D200 0000 0000	00000	00000	636=	MVC	0(0),0	
000106	4700 0000		00000	637=	NOP	0	
00010A	4700 0000		00000	638=	NOP	0	
		0010E		639=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT
00010E	4700 0000		00000	640=	NOP	0	
		00112		641=BCR	EQU	*-FSAREA	
000112	0700			642=	BCR	0,0	VARIABLE CONDITIONAL BRANCH
		00114		643=GETMSTO	EQU	*-FSAREA	
000114	4700 0000		00000	644=	NOP	0	
				645=*			
		00118		646=VALUCALL	EQU	*-FSAREA	
000118	4700 0000		00000	647=	NOP	0	
		0011C		648=IORLST	EQU	*-FSAREA	
00011C	4700 0000		00000	649=	NOP	0	
				650=*			
		001CC		651=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST
				652=*			
				653=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	
				654=*			
		0020C		655=OUTOFB	EQU	FSAERR+4*16	
00218				656=NUMBIND	EQU	FSAERR+4*19	
00208				657=ARRAYBD	EQU	FSAERR+4*15	
0026C				658=ERROR40	EQU	FSAERR+4*40	
00224				659=OERR22	EQU	FSAERR+4*22	
00210				660=ENDLESL	EQU	FSAERR+4*17	
00220				661=OERR21	EQU	FSAERR+4*21	
				662=*			
				663 *			
				664 *		DATASET TABLE MAPPING DSECT	
				665 *			
				666		DSTABLE DSECT=YES	
000000		00000	00024	667+DSTABLE	DSECT		01-DSTAB
				668+*			01-DSTAB
000000	00000000			669+ADCB	DC	F'0'	-> DCB
							01-DSTAB

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000004	00000000			670+R	DC	F'0'	CHARACTER POINTER 01-DSTAB
000008	00000000			671+RE	DC	F'0'	01-DSTAB
00000C	00000000			672+NBB	DC	F'0'	01-DSTAB
000010	00000000			673+BB	DC	F'0'	01-DSTAB
000014	0001			674+S	DC	H'1'	RECORD POINTER 01-DSTAB
000016	0050			675+P	DC	H'80'	RECORD LENGTH 01-DSTAB
000018	02			676+K	DC	X'02'	NUMBER OF BLANK DELIM CHARS 01-DSTAB
000019	00			677+Q	DC	X'00'	NO OF RECORDS PER SECTION 01-DSTAB
00001A	0000			678+DSF	DC	H'00'	DATASET FLAGS 01-DSTAB
				679+*			01-DSTAB
				680+*		DATASET FLAGS - DSF	01-DSTAB
				681+*			01-DSTAB
	00080			682+DS0	EQU	X'80'	DATASET OPEN 01-DSTAB
	00040			683+DS1	EQU	X'40'	01-DSTAB
	00020			684+DS2	EQU	X'20'	LAST I/O OUTPUT 01-DSTAB
	00010			685+DS3	EQU	X'10'	01-DSTAB
	00008			686+DS4	EQU	X'08'	01-DSTAB
	00004			687+DS5	EQU	X'04'	01-DSTAB
	00002			688+DS6	EQU	X'02'	OPEN FOR OUTPUT 01-DSTAB
	00001			689+DS7	EQU	X'01'	END OF FILE 01-DSTAB
				690+*			01-DSTAB
				691+*		DATASET FLAGS - DSF+1	01-DSTAB
				692+*			01-DSTAB
	00080			693+DS8	EQU	X'80'	END OF DATA 01-DSTAB
	00040			694+DS9	EQU	X'40'	01-DSTAB
	00020			695+DS10	EQU	X'20'	OPENED BY SYSACT 12 01-DSTAB
	00010			696+DS11	EQU	X'10'	INDICATE IHIERR-ROUT 01-DSTAB
	00008			697+DSEOD	EQU	X'08'	01-DSTAB
	00004			698+DSIOERR	EQU	X'04'	I/O ERROR 01-DSTAB
	00002			699+DS14	EQU	X'02'	DATASET OPENED 01-DSTAB
	00001			700+DS15	EQU	X'01'	CLOSE FROM IHIERR 01-DSTAB
				701+*			01-DSTAB
00001C	00000000			702+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			703+BL	DC	H'0'	LRECL+ TWO ARB 01-DSTAB
000022	0000			704+	DC	H'0'	01-DSTAB
				705+*			01-DSTAB
	00024			706+DSTABLEL	EQU	*-DSTABLE	L'DSTABLE ENTRY 01-DSTAB
				707+*			01-DSTAB
				708 *			00506001
				709 *		REGISTER EQUATES	00507001
				710 *			00508001
				711		IEZREGS	00509001
	00000			712+R0	EQU	0	01-IEZRE
	00001			713+R1	EQU	1	01-IEZRE
	00002			714+R2	EQU	2	01-IEZRE
	00003			715+R3	EQU	3	01-IEZRE
	00004			716+R4	EQU	4	01-IEZRE
	00005			717+R5	EQU	5	01-IEZRE
	00006			718+R6	EQU	6	01-IEZRE
	00007			719+R7	EQU	7	01-IEZRE
	00008			720+R8	EQU	8	01-IEZRE
	00009			721+R9	EQU	9	01-IEZRE
	0000A			722+R10	EQU	10	01-IEZRE
	0000B			723+R11	EQU	11	01-IEZRE
	0000C			724+R12	EQU	12	01-IEZRE
	0000D			725+R13	EQU	13	01-IEZRE
	0000E			726+R14	EQU	14	01-IEZRE
	0000F			727+R15	EQU	15	01-IEZRE
				728 *			00510001
				729		END	00511001
0006D4	00000000						
0006D8	E2E8E2E4E3F2			730		=C'SYSUT2'	
0006DE	E2E8E2E4E3F1			731		=C'SYSUT1'	

ERR	Symbol Cross Reference										PAGE	10
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21
=C'SYSUT1'												
	6	000006DE	00000001	C	C		731	152				
=C'SYSUT2'												
	6	000006D8	00000001	C	C		730	148				
ADDR	2	000003C4	00000001	I			372	360B				
ADSTAB	1	000000AC		U			578	116 441				
ARRAYS	4	000003CA	00000001	I			381	294B				
BNPATTN	4	000005A3	00000001	X	X		477	264				
BRRST	1	0000009C		U			562	563				
BUFFER	90	00000543	00000001	C	C		475	127M 128M 172M 183M 267M 280M 302M 363M 364M 365M 368 389M				
								414M 445 462M 463M				
B1	4	000000D6	00000001	I			115	73B 75B 79B				
CDSA	1	0000000A		U			45	228M 229 252M 253 255 261 277 292 381 384 390 393				
								406 415 422				
DSF	2	0000001A	FFFFFFFFE	H	H		678	74 119M 122M 123M 124M 444M				
DSNUMBER	1	00000542	00000001	X	X		474	145M 146				
DSN17	4	00000166	00000001	I			151	147B				
DSTABLE	1	00000000	FFFFFFFFE	J			667	37U 706				
DSTABLEL	1	00000024		U			706	117 442				
DS0	1	00000080		U			682	124				
DS1	1	00000040		U			683	124				
DS11	1	00000010		U			696	74 122				
DS15	1	00000001		U			700	119				
DS2	1	00000020		U			684	123				
DS3	1	00000010		U			685	123 444				
DS6	1	00000002		U			688	123				
DTSW	1	000000C2		U			590	106M 218 591				
EDIT	4	00000262	00000001	I			252	220B				
ENDLINE	4	000001E2	00000001	I			185	178B				
ENDOFR	2	0000025A	00000001	I			236	215B				
ENDVALAR	4	00000468	00000001	I			428	408B 425B				
ERM02BK	16	000005E7	00000001	C	C		489	259				
ERM02BN	4	000005D1	00000001	C	C		484	264M 265M				
ERM02L	1	00000040		U			487	267				
ERM02M	8	000005B0	00000001	C	C		482	254M				
ERM02TP	16	000005D7	00000001	C	C		486	260M				
ERM06L	1	0000002F		U			500	389				
ERM06SMF	7	0000066C	00000001	C	C		498	386M 387M 388M				
ERM07L	1	00000036		U			505	414				
ERM07SMF	7	0000069B	00000001	C	C		503	411M 412M 413M				
EXMVC	6	000001DC	00000001	I			183	176X				
FCTVALST	1	00000090		U			558	561				
FLAG	1	00000540	00000001	X	X		471	185M 266M 289M 303M 309M 359 366 369M 383M 395M 409M 420M				
								429M 430M 449 459M				
FLAGIDS	1	00000003		U			50	143 168				
FLAGMC	1	00000004		U			52	177				
FSAERCOD	1	000000C3		U			593	76 78 131				
FSAERR	1	000001CC		U			651	655 656 657 658 659 660 661				
FSAREA	1	00000000	FFFFFFFFF	U			548	553 558 560 561 562 565 572 574 578 580 584 586				
								588 590 593 600 602 604 606 612 614 616 619 621				
								623 625 627 629 631 633 635 639 641 643 646 648				
IF16	1	00000542	00000001	C	C		473	320M 321M				
IHB0002A	2	0000008E	00000001	H	H		89	83B				
IHB0003A	2	000000C8	00000001	H	H		102	96B				
IHIERMSG	1	00000000	00000002	T			523	523				
IHIERM01	1	00000000	00000003	T			524	524				
IHIERM02	9	000005A7	00000001	C	C		481	267 487				
IHIERM05	42	00000628	00000001	C	C		495	302				
IHIERM06	26	00000652	00000001	C	C		497	389 500				
IHIERM07	26	00000681	00000001	C	C		502	414 505				
IHIERROR	1	00000000	00000001	J			35	62U				
INSETD	4	0000039C	00000001	I			362	373B				
INSETDA	4	00000398	00000001	I			361	324B				
INSETDB	4	000003BC	00000001	I			369	367B				
IOERR	4	00000094	00000001	I			96	77B				
KFORMAL	17	00000617	00000001	C	C		493	280				
LABAA	4	00000340	00000001	I			324	322B				
LINE2	4	000001BE	00000001	I			174	181B				
MOREARRY	4	000003D2	00000001	I			383	398B				
MORERAS	4	00000212	00000001	I			213	202B 234B				
MORERASA	4	00000216	00000001	I			214	225B				
MORESPDA	2	000001FA	00000001	I			201	211B				
MULT32	4	00000308	00000001	I			308	315B				
MULT32A	4	0000030C	00000001	I			309	306B				
NFPARM	4	000002DE	00000001	I			289	310 318B 325B				
NOFLAG	2	000004CA	00000001	I			460	450B				
NOFPARAM	4	000002E6	00000001	I			291	279B				
NOTYPE	2	000002D8	00000001	I			287	285B				
NOTZERO	4	00000318	00000001	I			313	305B				
NOT1617	4	000001AA	00000001	I			168	151B				
NOT1617A	4	000001B2	00000001	I			170	144B				
OPTSW	1	000000C2		U			591	105M				
OUTPUT	4	00000478	00000001	I			439	129B 179B 186B 268B 290B 319B 358B 396B 421B 428B				
PBT	1	0000000B		U			46	229M 253M 254 255M 257 278 282 284 291				
PGOPSW	1	000000B4		U			584	160 163				
PRENTRY	4	00000232	00000001	I			222	217B				
PROLOGP	1	000000DC		U			616	617				
PSWDSN	6	000001B6	00000001	I			172	149B 153B 158B 166B				
R	4	00000004	FFFFFFFFE	F	F		670	443 454				
RASPT	1	000000C8		U			602	213 224M				
RASSTART	1	000000C4		U			600	214				
RELD5A	2	00000240	00000001	I			227	219B 431B				
RESFLAG	4	000004C6	00000001	I			459	457B				
R0	1	00000000		U			712	308M 313M 316M 335M 338M 342M 357M 446M 460 461M				
R1	1	00000001		U			713	63 199M 200 201M 203 208 230M 231B 276M 304M 314M 320				
								336M 339M 346M 361 372 391M 418M				
R12	1	0000000C		U			724	64M 76 78 105 106 116 131 139 160 163 213 214				

ERR	Symbol Cross Reference													PAGE	11
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21			
								218 224 227 232M 236 439 441 464							
R13	1	0000000D		U			725	64 65M 227M 232 233M 236M							
R14	1	0000000E		U			726	121M 126M 213M 214 216 223M 224 228 252 446 448M 460M							
R15	1	0000000F		U			727	61 120M 121B 125M 126B 231M 447M 448B							
R2	1	00000002		U			714	130M 131M 133 134M 135 139M 140 173M 174M 175M 176 180 200M 201 203M 222M 223 256M 257M 258M 259 261M 262M 263 291M 292 381M 384 385 390 393M 394M 397M 406M 407M 410 415 422 423M 424M							
R3	1	00000003		U			715	129M 136M 137 138 141 142 172 179M 186M 268M 290M 319M 358M 361M 362 372M 396M 421M 428M 465B							
R4	1	00000004		U			716	288M 310M 324M 334B 392M 419M							
R5	1	00000005		U			717	37U 116M 117M 281M 282M 283M 286M 287M 292M 293 317 333 390M 416M 439 441M 442M 454M 455M 456 458 464M							
R6	1	00000006		U			718	73M 115 118M 132M 133M 143 148 152 156 157 160 161 162 163 164 165 168 174 177 180M 183 259M 260 440M 451M 452M 453							
R7	1	00000007		U			719	61M 62U							
R8	1	00000008		U			720	115M 145 155 323M 341M 343 344 345 347M 368M 439 443M 445 464M							
R9	1	00000009		U			721	277M 287 293 317 333 343 348M 384M 415M 416 417M 422M 423							
S	2	00000014	FFFFFFFFE	H	H		674	451 453M							
SAVEAREA	4	000004E0	00000001	F	F		467	65 233							
SCOUNT	4	000004AA	00000001	I			452	188M							
SCPATTN	6	0000059D	00000001	X	X		476	141 142							
SCRCS	1	000000C0		U			588	139							
SETDISP	4	00000388	00000001	I			357	337B							
SETOPTSW	4	000000CA	00000001	I			105	92B							
SHIFTB	4	00000364	00000001	I			342	340B							
SPACE	1	00000541	00000001	C	C		472	187M 458							
SPDAFREE	4	000001F2	00000001	I			199	107B							
TAKEDSN	4	00000174	00000001	I			155	169B							
TAKEPSW	6	00000186	00000001	I			160	170B							
TRANS	6	00000368	00000001	I			343	370B							
TRANSDAT	2	00000348	00000001	I			333	288B 311B 349B 392B 419B							
TRTABLE	16	00000530	00000001	C	C		470	161 165 345 365 388 413							
VALARRAY	4	0000041E	00000001	I			409	426B							
VALUE	4	00000414	00000001	I			406	382B							
VERMSG	4	000006CC	00000001	V	V		523	132							
VERM01	4	000006D0	00000001	V	V		524	136							
VFRDSA	4	000006B8	00000001	A	A		515	63M 230							
VIORCP	4	000006C4	00000001	A	A		518	120							
VIORNX	4	000006C8	00000001	A	A		519	447							
VIOROP	4	000006C0	00000001	A	A		517	125							
VSPDAP	4	000006BC	00000001	A	A		516	199							
WORKD	8	00000528	00000001	D	D		469	135M 137 140M 142 155M 156 263M 265 362M 363 385M 386 410M 411							

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ERR		Dsect Cross Reference					PAGE 13	
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04 2012/08/17 13.21		
DSTABLE	00000024	FFFFFFFFE	667	4	DSTABLE			
FSARE	00000120	FFFFFFFFF	526		PRIMARY INPUT			

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB				
		FREEMAIN	IEZREGS	RETURN	SAVE WTO
2	SYSD.TOOLS.MACLIB				
3	SYSD.ALGOLFRT.ASM				
4	SYSD.ALGOLFRT.MACLIB				
		DSTABLE	FSAREA		
5	SYS1.AMODGEN				

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.21
37		USING	Ordinary	FFFFFFFE	00000000	00001000	5	0001B	454	DSTABLE,R5		
62		USING	Ordinary	00000001	00000000	00001000	7	006DE	463	IIERROR,R7		



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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIERR      PROCSTEP: X390

Primary input: lines      1 to      511 of SYSD.ALGOLFRT.ASM(IHIERR)

SYSLIB library records read: 1118

SYSUT1 work file size: 73052 bytes

SYSUT2 work file size: 82324 bytes

SYSUT3 work file size: 40880 bytes

SYSLIN file records written: 35

TXA000I Return code 0, elapsed time 0.70 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIEROR 0006E4 4

**IHIFDD**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIFDD)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00110
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00003001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY		00004001
				4 *			00005001
				5 *	STATUS - LEVEL 2.1		00006001
				6 *			00007001
				7 *	FUNCTION/OPERATION - SEE CODE		00008001
				8 *			00009001
				9 *	ENTRY POINT - IHIFDD - POWER FUNCTION, REAL**REAL, LONG		00010001
				10 *	LA R1,PARMLIST		00011001
				11 *	BALR R14,R15		00012001
				12 *	DATA PASSED BY NAME		00013001
				13 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00014001
				14 *			00015001
				15 *	INPUT - N/A		00016001
				16 *			00017001
				17 *	OUTPUT - N/A		00018001
				18 *			00019001
				19 *	EXTERNAL ROUTINES -		00020001
				20 *			00021001
				21 *	IHILLO - LOGARITHM FUNCTION, LONG PRECISION		00022001
				22 *	IHILEX - EXPONENTIAL FUNCTION, LONG PRECISION		00023001
				23 *			00024001
				24 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0		00025001
				25 *			00026001
				26 *	EXIT - ERROR -		00027001
				27 *	IF BASE IS ZERO AND EXPONENT NOT POSITIVE GOTO ERROR		00028001
				28 *	ROUTINE VIA		00029001
				29 *	B FSAERR+35*4(R13)		00030001
				30 *			00031001
				31 *	TABLES/WORKAREAS - N/A		00032001
				32 *			00033001
000000		00000	000FC	33	IHIFDDXP CSECT		00034001
				34 *			00035001
				35 *	FLOATING POINT REGISTERS		00036001
				36 *			00037001
		00000		37	FPR0 EQU 0	BASE NO, PASSING RESULT	00038001
		00002		38	FPR2 EQU 2	EXPONENT IN COMPUTATION	00039001
				39 *			00040001
				40 *	GENERAL PURPOSE REGISTERS		00041001
				41 *			00042001
				42 *	R1	PARAMETER LIST REF	00043001
				43 *	R3	INDEXING PARAMETER ADDR	00044001
				44 *			00045001
				45	ENTRY IHIFDD		00046001
				46 *			00047001
				47	IHIFDD SAVE (14,12),, 'IHIFDDXP LEVEL 2.1 &SYSDATE &SYSTIME'		00048001
000000	47F0 F026		00026	48+	IHIFDD B 38(0,15)	BRANCH AROUND ID	01-SAVE
000004	21			49+	DC AL1(33)	LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C6C4C4E7D7			50+	DC CL32'IHIFDDXP LEVEL 2.1 08/17/12 13.2'	IDENTIFIER	01-SAVE
000025	F1			51+	DC CL1'1'	IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	52+	STM 14,12,12(13)	SAVE REGISTERS	01-SAVE
				53 *			00049001
00002A	182F			54	LR R2,R15		00050001
		R:2	00000	55	USING IHIFDDXP,R2		00051001
00002C	183D			56	LR R3,R13	CHAIN SAVE AREAS	00052001
00002E	41D0 2098		00098	57	LA R13,SAVEAREA		00053001
000032	5030 D004		00004	58	ST R3,4(,R13)		00054001
000036	50D0 3008		00008	59	ST R13,8(,R3)		00055001
00003A	5830 1000		00000	60	L R3,0(,R1)	PLIST OF BASE NO IN R3	00056001
00003E	6800 3000		00000	61	LD FPR0,0(,R3)	BASE NO INTO FPR0	00057001
000042	5830 1004		00004	62	L R3,4(,R1)	PLIST OF EXPONENT IN R3	00058001
000046	6820 3000		00000	63	LD FPR2,0(,R3)	EXPONENT INTO FPR2	00059001
00004A	2200			64	LTD R FPR0,FPR0	BASE NO +, - OR ZERO ?	00060001
00004C	4780 208A		0008A	65	BZ ERROR	ZERO, BRANCH TO ERROR	00061001
000050	4740 2090		00090	66	BM ERRORM	NEGATIVE, UNDEFINED ERROR	00062001
000054	2222			67	LTD R FPR2,FPR2	EXPONENT PLUS, MINUS, OR ZERO ?	00063001
000056	4780 207C		0007C	68	BZ LOAD1	ZERO, BRANCH TO LOAD1	00064001
00005A	6020 20E0		000E0	69	STD FPR2,PARAM	STORE EXPONENT	00065001
00005E	58F0 20F4		000F4	70	L R15,VIHILLO	R15 -> IHILLO ROUTINE	00066001
000062	05EF			71	BALR R14,R15	CALL IHILLO ROUTINE	00067001
000064	6820 20E0		000E0	72	LD FPR2,PARAM	RELOAD FPR2 WITH EXPONENT	00068001
000068	2C02			73	MDR FPR0,FPR2	MULT LOG OF BASE NO BY EXPONENT	00069001
00006A	6000 20E0		000E0	74	STD FPR0,PARAM	STORE RESULT AS EXP RTN PARM	00070001
00006E	4110 20F0		000F0	75	LA R1,ADCPAR	R1 -> EXP RTN PARM	00071001
000072	58F0 20F8		000F8	76	L R15,VIHILEX	R15 -> IHILEX ROUTINE	00072001
000076	05EF			77	BALR R14,R15	CALL IHILEX ROUTINE	00073001
000078	47F0 2080		00080	78	B EXIT	EXIT WITH RESULT IN FPR0	00074001
				79 *			00075001
00007C	6800 20E8		000E8	80	LOAD1 LD FPR0,KFPDONE	PLUS 1 AS RESULT IN FPR0	00076001
000080	58D0 D004		00004	81	EXIT L R13,4(,R13)	R13 -> CALLERS SAVE AREA	00077001
				82 *			00078001
				83	RETURN (14,12)	RESTORE CALLERS REGS AND RETURN	00079001
000084	98EC D00C		0000C	84+	LM 14,12,12(13)	RESTORE THE REGISTERS	01-RETUR
000088	07FE			85+	BR 14	RETURN	01-RETUR
				86 *			00080001
00008A	2222			87	ERROR LTD R FPR2,FPR2	EXPONENT PLUS, MINUS, OR ZERO ?	00081001
00008C	4720 2080		00080	88	BP EXIT	EXPN IS POSITIVE, BRANCH TO EXIT	00082001
000090	58DD 0004		00004	89	ERRORM L R13,4(R13)	R13 -> CALLERS SAVE AREA	00083001
000094	47FD 0258		00258	90	B FSAERR+35*4(R13)	BASENO EQUAL ZERO AND EXPONENT	00084001
				91 *		NO GREATER THAN ZERO, UNDERFINED	00085001
				92 *			00086001
				93 *	CONSTANTS AND ADCON AREAS		00087001
				94 *			00088001
000098	0000000000000000			95	SAVEAREA DC 18F'0'	SAVE AREA	00089001
0000E0	0000000000000000			96	PARAM DC D'0'	PARAM FOR DATA IN DEXP MATH RTN	00090001
0000E8	4110000000000000			97	KFPDONE DC D'+1'	CONSTANT ONE IN DOUBLE PREC FP	00091001

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				98 *			00092001
0000F0	000000E0			99 ADCPAR	DC	A(PARAM)	00093001
				100 *		ADDR OF PARAMETER FOR EXP RTN	00094001
0000F4	00000000			101 VIHILLO	DC	V(IHILLO)	00095001
0000F8	00000000			102 VIHILEX	DC	V(IHILEX)	00096001
				103 *		EXP MATH LIBRARY ROUT	00097001
		001CC		104 FSAERR	EQU	X'1CC'	00098001
				105 *			00099001
				106 *		REGISTER EQUATES	00100001
				107 *			00101001
				108		IEZREGS	00102001
	00000			109+R0	EQU	0	01-IEZRE
	00001			110+R1	EQU	1	01-IEZRE
	00002			111+R2	EQU	2	01-IEZRE
	00003			112+R3	EQU	3	01-IEZRE
	00004			113+R4	EQU	4	01-IEZRE
	00005			114+R5	EQU	5	01-IEZRE
	00006			115+R6	EQU	6	01-IEZRE
	00007			116+R7	EQU	7	01-IEZRE
	00008			117+R8	EQU	8	01-IEZRE
	00009			118+R9	EQU	9	01-IEZRE
	0000A			119+R10	EQU	10	01-IEZRE
	0000B			120+R11	EQU	11	01-IEZRE
	0000C			121+R12	EQU	12	01-IEZRE
	0000D			122+R13	EQU	13	01-IEZRE
	0000E			123+R14	EQU	14	01-IEZRE
	0000F			124+R15	EQU	15	01-IEZRE
				125 *			00103001
				126		END	00104001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.21
ADCPAR	4	000000F0	00000001	A	A		99	75			
ERROR	2	0000008A	00000001	I			87	65B			
ERRORM	4	00000090	00000001	I			89	66B			
EXIT	4	00000080	00000001	I			81	78B 88B			
FPR0	1	00000000		U			37	61M 64M	73M	74	80M
FPR2	1	00000002		U			38	63M 67M	69	72M	73 87M
FSAERR	1	000001CC		U			104	90B			
IHIFDD	4	00000000	00000001	I			48	45			
IHIFDDXP	1	00000000	00000001	J			33	55U			
IHILEX	1	00000000	00000003	T			102	102			
IHILLO	1	00000000	00000002	T			101	101			
KFPDONE	8	000000E8	00000001	D	D		97	80			
LOAD1	4	0000007C	00000001	I			80	68B			
PARAM	8	000000E0	00000001	D	D		96	69M 72	74M	99	
R1	1	00000001		U			110	60 62	75M		
R13	1	0000000D		U			122	56 57M	58	59	81M 89M 90
R14	1	0000000E		U			123	71M 77M			
R15	1	0000000F		U			124	54 70M	71B	76M	77B
R2	1	00000002		U			111	54M 55U			
R3	1	00000003		U			112	56M 58	59	60M	61 62M 63
SAVEAREA	4	00000098	00000001	F	F		95	57			
VIHILEX	4	000000F8	00000001	V	V		102	76			
VIHILLO	4	000000F4	00000001	V	V		101	70			

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Con	Source	Members
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X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

FDD				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21	
55		USING	Ordinary	00000001	00000000	00001000	2	000F8	88	IHIFDDXP,R2				

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHIFDD    PROCSTEP: X390

Primary input: lines    1 to    104 of SYSD.ALGOLFRT.ASM(IHIFDD)

SYSLIB library records read: 161

SYSUT1 work file size: 12124 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 8320 bytes

SYSLIN file records written: 9

TXA000I Return code 0, elapsed time 0.14 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIFDDXP 0000FC 4

**IHIFDI**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIFDI)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00114
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00003001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY		00004001
				4 *			00005001
				5 *	STATUS - LEVEL 2.1		00006001
				6 *			00007001
				7 *	FUNCTION/OPERATION - SEE CODE		00008001
				8 *			00009001
				9 *	ENTRY POINT -		00010001
				10 *	IHIFDI - POWER FUNCTION, REAL**INT, LONG		00011001
				11 *	LA R1,PARMLIST		00012001
				12 *	BALR R14,R15		00013001
				13 *	DATA PASSED BY NAME		00014001
				14 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00015001
				15 *			00016001
				16 *	INPUT - N/A		00017001
				17 *			00018001
				18 *	OUTPUT - N/A		00019001
				19 *			00020001
				20 *	EXTERNAL ROUTINES - N/A		00021001
				21 *			00022001
				22 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0		00023001
				23 *			00024001
				24 *	EXIT - ERROR -		00025001
				25 *	IF BASE IS ZERO AND EXPONENT NOT POSITIVE GOTO ERROR		00026001
				26 *	ROUTINE VIA		00027001
				27 *	B FSAERR+35*4(R13)		00028001
				28 *			00029001
				29 *	TABLES/WORKAREAS - N/A		00030001
				30 *			00031001
000000		00000	000A0	31	IHIFDIXP CSECT		00032001
				32 *			00033001
				33	ENTRY IHIFDI		00034001
				34 *			00035001
				35 *	FLOATING POINT REGISTERS		00036001
				36 *			00037001
		00000		37 FPR0	EQU 0	BASE NO, PASSING RESULT	00038001
		00002		38 FPR2	EQU 2	FACTOR, COMPUTING RESULT	00039001
				39 *			00040001
				40 *	GENERAL PURPOSE REGISTERS		00041001
				41 *			00042001
				42 *	R0	TESTING FOR MINUS EXPN	00043001
				43 *	R2	EXPONENT IN COMPUTATION	00044001
				44 *			00045001
				45	IHIFDI SAVE (14,12),,'IHIFDIXP LEVEL 2.1 &SYSDATE &SYSTIME'		00046001
000000	47F0 F026		00026	46+	IHIFDI B 38(0,15)	BRANCH AROUND ID	01-SAVE
000004	21			47+	DC AL1(33)	LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C6C4C9E7D7			48+	DC CL32'IHIFDIXP LEVEL 2.1 08/17/12 13.2'	IDENTIFIER	01-SAVE
000025	F1			49+	DC CL1'1'	IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	50+	STM 14,12,12(13)	SAVE REGISTERS	01-SAVE
				51 *			00047001
		R:F	00000	52	USING IHIFDIXP,R15		00048001
00002A	5830 1000		00000	53	L R3,0(,R1)	LOAD PLIST OF BASE NO IN R3	00049001
00002E	6800 3000		00000	54	LD FPR0,0(,R3)	LOAD BASE NO INTO FPR0	00050001
000032	5830 1004		00004	55	L R3,4(0,R1)	LOAD PLIST OF EXPONENT IN R3	00051001
000036	5820 3000		00000	56	L R2,0(0,R3)	LOAD EXPONENT INTO R2	00052001
00003A	2200			57	LTR FPR0,FPR0	BASE NO +, - OR ZERO ?	00053001
00003C	4780 F08E		0008E	58	BZ ERROR	ZERO, BRANCH TO ERROR	00054001
000040	1B00			59	SR R0,R0	SET NEGATIVE EXPN SWITCH TO 0	00055001
000042	1222			60	LTR R2,R2	EXPONENT +, - OR ZERO ?	00056001
000044	4720 F052		00052	61	BP PLUS	+VE, BRANCH TO PLUS	00057001
000048	4780 F084		00084	62	BZ LOAD1	ZERO, BRANCH TO LOAD1	00058001
00004C	1322			63	LCR R2,R2	MINUS, CONVERT TO 2S COMPLIMENT	00059001
00004E	4100 0001		00001	64	LA R0,1	SET EXP SW TO ONE FOR MINUS EXPN	00060001
000052	6820 F098		00098	65 PLUS	LD FPR2,KFPDONE	LOAD FACTOR OF ONE IN FPR2	00061001
000056	8C20 0001		00001	66 LOOP	SRDL R2,1	SHIFT LOW BIT R2 INTO R3	00062001
00005A	1233			67	LTR R3,R3	LOWORDER BIT OF R2 MAKE R3 NEG ?	00063001
00005C	4780 F062		00062	68	BNM JUMP	NO, BRANCH TO JUMP	00064001
000060	2C20			69	MDR FPR2,FPR0	YES, MULTIPLY FPR2 BY FPR0	00065001
000062	1222			70 JUMP	LTR R2,R2	EXPONENT +, - OR ZERO ?	00066001
000064	4780 F06E		0006E	71	BZ NEXT	EXPONENT ZERO, BRANCH TO NEXT	00067001
000068	2C00			72	MDR FPR0,FPR0	MULT FPR0 NO BY DOUBLING ITSELF	00068001
00006A	47F0 F056		00056	73	B LOOP	LOOP TO TEST NEXT EXPN BIT	00069001
				74 *			00070001
00006E	1200			75 NEXT	LTR R0,R0	R0 +, - OR ZERO ?	00071001
000070	4780 F07E		0007E	76	BZ SWAP	EXPN - MINUS, BRANCH TO SWAP	00072001
000074	6800 F098		00098	77	LD FPR0,KFPDONE	LOAD ONE IN FPR0 AS DIVIDEND	00073001
000078	2D02			78	DDR FPR0,FPR2	DIV FPR0 BY FPR2 (RESULT)	00074001
00007A	47F0 F088		00088	79	B EXIT	EXIT (RESULT IN FPR0)	00075001
				80 *			00076001
00007E	2802			81 SWAP	LDR FPR0,FPR2	LOAD FPR2 INTO FPR0	00077001
000080	47F0 F088		00088	82	B EXIT	EXIT (RESULT IN FPR0)	00078001
				83 *			00079001
000084	6800 F098		00098	84 LOAD1	LD FPR0,KFPDONE	LOAD PLUS 1 AS RESULT IN FPR0	00080001
				85 *			00081001
				86 EXIT	RETURN (14,12)	RESTORE CALLERS REGS AND RETURN	00082001
000088				87+EXIT	DS 0H		01-RETUR
000088	98EC D00C		0000C	88+	LM 14,12,12(13)	RESTORE THE REGISTERS	01-RETUR
00008C	07FE			89+	BR 14	RETURN	01-RETUR
				90 *			00083001
00008E	1222			91 ERROR	LTR R2,R2	EXPONENT +, - OR ZERO ?	00084001
000090	4720 F088		00088	92	BP EXIT	EXPN IS POSITIVE, BRANCH TO EXIT	00085001
000094	47FD 0258		00258	93	B FSAERR+35*4(13)	BASE NO = ZERO AND EXPONENT	00086001
				94 *		-> ZERO, UNDEFINED	00087001
				95 *			00088001
				96 *	ADCONS AND CONSTANTS AREA		00089001
				97 *			00090001

Loc Object Code Addr1 Addr2 Stmt Source Statement X390 3.1.04 2012/08/17 13.21

000098 4110000000000000 98 KFPDONE DC D'+1' CONSTANT ONE IN DOUBLE PREC FP 00091001  
99 \* 00092001  
001CC 100 FSAERR EQU X'1CC' 00093001  
101 \* 00094001  
102 \* REGISTER EQUATES 00095001  
103 \* 00096001  
104 IEZREGS 00097001  
00000 105+R0 EQU 0 01-IEZRE  
00001 106+R1 EQU 1 01-IEZRE  
00002 107+R2 EQU 2 01-IEZRE  
00003 108+R3 EQU 3 01-IEZRE  
00004 109+R4 EQU 4 01-IEZRE  
00005 110+R5 EQU 5 01-IEZRE  
00006 111+R6 EQU 6 01-IEZRE  
00007 112+R7 EQU 7 01-IEZRE  
00008 113+R8 EQU 8 01-IEZRE  
00009 114+R9 EQU 9 01-IEZRE  
0000A 115+R10 EQU 10 01-IEZRE  
0000B 116+R11 EQU 11 01-IEZRE  
0000C 117+R12 EQU 12 01-IEZRE  
0000D 118+R13 EQU 13 01-IEZRE  
0000E 119+R14 EQU 14 01-IEZRE  
0000F 120+R15 EQU 15 01-IEZRE  
121 \* 00098001  
122 END 00099001



Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.21
ERROR	2	0000008E	00000001	I			91	58B			
EXIT	2	00000088	00000001	H	H		87	79B 82B 92B			
FPR0	1	00000000		U			37	54M 57M 69	72M 77M 78M 81M 84M		
FPR2	1	00000002		U			38	65M 69M 78	81		
FSAERR	1	000001CC		U			100	93B			
IHIFDI	4	00000000	00000001	I			46	33			
IHIFDIXP	1	00000000	00000001	J			31	52U			
JUMP	2	00000062	00000001	I			70	68B			
KFPDONE	8	00000098	00000001	D	D		98	65 77 84			
LOAD1	4	00000084	00000001	I			84	62B			
LOOP	4	00000056	00000001	I			66	73B			
NEXT	2	0000006E	00000001	I			75	71B			
PLUS	4	00000052	00000001	I			65	61B			
R0	1	00000000		U			105	59M 64M 75M			
R1	1	00000001		U			106	53 55			
R15	1	0000000F		U			120	52U			
R2	1	00000002		U			107	56M 60M 63M 66M 70M 91M			
R3	1	00000003		U			108	53M 54 55M 56 67M			
SWAP	2	0000007E	00000001	I			81	76B			

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.21

0(0)	50	59M	64M	75M	88M				
1(1)	50	53	55	88M					
2(2)	50	56M	60M	63M	66M	70M	88M	91M	
3(3)	50	53M	54	55M	56	66M	67M	88M	
4(4)	50	88M							
5(5)	50	88M							
6(6)	50	88M							
7(7)	50	88M							
8(8)	50	88M							
9(9)	50	88M							
10(A)	50	88M							
11(B)	50	88M							
12(C)	50	88M							
13(D)	50	88	93N						
14(E)	50	88M	89B						
15(F)	46B	50	52U	88M					

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

FDI				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21	
52		USING	Ordinary	00000001	00000000	00001000	15	00098	92	IHIFDIXP,R15				

X390 3.1.04 2012/08/17 13.21

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIFDI      PROCSTEP: X390

Primary input: lines      1 to      99 of SYSD.ALGOLFRT.ASM(IHIFDI)

SYSLIB library records read: 161

SYSUT1 work file size: 11628 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 7920 bytes

SYSLIN file records written: 5

TXA000I Return code 0, elapsed time 0.14 seconds.

No uninitialized areas found

**IHIFI**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIFII)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00118
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3



Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
				2 *		00002001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				4 *		00004001
				5 *	STATUS - LEVEL 2.1	00005001
				6 *		00006001
				7 *	FUNCTION/OPERATION - SEE CODE	00007001
				8 *		00008001
				9 *	ENTRY POINT -	00009001
				10 *	IHIFII - POWER FUNCTION, INT**INT	00010001
				11 *	LA R1,PARMLIST	00011001
				12 *	BALR R14,R15	00012001
				13 *	DATA PASSED BY NAME	00013001
				14 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE	00014001
				15 *		00015001
				16 *	INPUT - N/A	00016001
				17 *		00017001
				18 *	OUTPUT - N/A	00018001
				19 *		00019001
				20 *	EXTERNAL ROUTINES - N/A	00020001
				21 *		00021001
				22 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN R0	00022001
				23 *		00023001
				24 *	EXIT - ERROR -	00024001
				25 *	IF BASE IS ZERO AND EXPONENT NOT POSITIVE GOTO ERROR	00025001
				26 *	ROUTINE VIA	00026001
				27 *	B FSAERR+35*4(R13)	00027001
				28 *		00028001
				29 *	TABLES/WORKAREAS - N/A	00029001
				30 *		00030001
000000		00000	000C0	31	IHIFIIXP CSECT	00031001
				32 *		00032001
				33 *	GENERAL PURPOSE REGISTERS	00033001
				34 *		00034001
				35 *	R0 PASSING ON FINAL RESULT	00035001
				36 *	R1 PARAMETER LIST REF	00036001
				37 *	R2 MPY REG FOR FACTOR	00037001
				38 *	R3 FACTOR AND ANSWER	00038001
				39 *	R4 MPY REG FOR BASE NO	00039001
				40 *	R5 BASE NO IN COMPUTATION	00040001
				41 *	R6 EXPONENT IN COMPUTATION	00041001
				42 *	R7 INDEXING PARAMETER ADDR	00042001
				43 *		00043001
				44	IHIFII SAVE (14,12),, 'IHIFIIXP LEVEL 2.1 &SYSDATE &SYSTIME'	00044001
000000	47F0 F026		00026	45+	IHIFII B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			46+	DC AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C6C9C9E7D7			47+	DC CL32' IHIFIIXP LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			48+	DC CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	49+	STM 14,12,12(13) SAVE REGISTERS	01-SAVE
				50 *		00045001
		R:F	00000	51	USING IHIFIIXP,R15	00046001
00002A	5870 1000		00000	52	L R7,0(,R1) LOAD PLIST OF BASE NO IN R7	00047001
00002E	5850 7000		00000	53	L R5,0(,R7) LOAD BASE NO INTO R5	00048001
000032	5870 1004		00004	54	L R7,4(,R1) LOAD PLIST OF EXPONENT IN R7	00049001
000036	5860 7000		00000	55	L R6,0(,R7) LOAD EXPONENT INTO R6	00050001
00003A	1205			56	LTR R0,R5 LOAD BASE NO INTO RESULT REG	00051001
				57 *		00052001
00003C	4780 F0B0		000B0	58	BZ ERROR ZERO, BRANCH TO ERROR	00053001
000040	1266			59	LTR R6,R6 EXPONENT +, - OR ZERO ?	00054001
000042	4780 F0A2		000A2	60	BZ LOAD1 ZERO, BRANCH TO LOAD1	00055001
000046	0650			61	BCTR R5,0 DECR VALUE OF BASE NO	00056001
000048	1255			62	LTR R5,R5 BASE NO + - OR ZERO ?	00057001
00004A	4780 F0A6		000A6	63	BZ EXIT ZERO, BRANCH TO EXIT	00058001
00004E	4150 5002		00002	64	LA R5,2(,R5) INCR BY TWO VALUE OF BASE NO	00059001
000052	1255			65	LTR R5,R5 BASE NO +, - OR ZERO ?	00060001
000054	4780 F098		00098	66	BZ TEST ZERO, BRANCH TO TEST	00061001
000058	1266			67	LTR R6,R6 EXPONENT +, - OR ZERO ?	00062001
00005A	4720 F064		00064	68	BP PLUS POSITIVE, BRANCH TO PLUS	00063001
00005E	1B00			69	SR R0,R0 EXPN MINUS, RESULT = ZERO	00064001
000060	47F0 F0A6		000A6	70	B EXIT EXIT ROUTINE	00065001
				71 *		00066001
000064	1850			72 PLUS	LR R5,R0 RELOAD ORG BASE NO FROM RESULT	00067001
000066	5830 F0BC		000BC	73	L R3,KF1 LOAD FACTOR OF ONE IN R3	00068001
00006A	8C60 0001		00001	74 LOOP	SRDL R6,1 SHIFT LOW BIT R6 INTO R7	00069001
00006E	1277			75	LTR R7,R7 LOWORDER BIT OF R6 MAKE R7 NEG ?	00070001
000070	47B0 F07E		0007E	76	BNM JUMP NO, BRANCH TO JUMP	00071001
000074	1C25			77	MR R2,R5 MULTIPLY FACTOR REG BY R5	00072001
000076	8F20 0020		00020	78	SLDA R2,32 CHECK OVERFLOW	00073001
00007A	8E20 0020		00020	79	SRDA R2,32	00074001
00007E	1266			80 JUMP	LTR R6,R6 EXPONENT +, - OR ZERO ?	00075001
000080	4780 F092		00092	81	BZ NEXT EXPONENT ZERO, BRANCH TO NEXT	00076001
000084	1C45			82	MR R4,R5 MULT BASE NO BY DOUBLING ITSELF	00077001
000086	8F40 0020		00020	83	SLDA R4,32	00078001
00008A	8E40 0020		00020	84	SRDA R4,32	00079001
00008E	47F0 F06A		0006A	85	B LOOP LOOP TO TEST NEXT EXPN BIT	00080001
				86 *		00081001
000092	1803			87 NEXT	LR R0,R3 LOAD FACTOR INTO RESULT	00082001
000094	47F0 F0A6		000A6	88	B EXIT EXIT	00083001
				89 *		00084001
000098	8C60 0001		00001	90 TEST	SRDL R6,1 SHIFT LOW BIT R6 INTO R7	00085001
00009C	1277			91	LTR R7,R7 LOWORDER BIT OF R6 MAKE R7 NEG ?	00086001
00009E	4740 F0A6		000A6	92	BM EXIT MINUS (EXPN ODD), GOTO EXIT	00087001
0000A2	5800 F0BC		000BC	93 LOAD1	L R0,KF1 LOAD R0 WITH VALUE OF PLUS 1	00088001
0000A6	9001 D014		00014	94 EXIT	STM R0,R1,20(R13) UPDATE SAVEAREA WITH RESULT	00089001
				95 *		00090001
				96	RETURN (14,12) RESTORE CALLERS REGS AND RETURN	00091001
0000AA	98EC D00C		0000C	97+	LM 14,12,12(13) RESTORE THE REGISTERS	01-RETURN

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000AE	07FE			98+	BR	14	RETURN 01-RETUR
				99 *			00092001
0000B0	1266			100 ERROR	LTR	R6,R6	EXPONENT +, - OR ZERO ? 00093001
0000B2	4720 F0A6		000A6	101	BP	EXIT	EXPN IS POSITIVE, BRANCH TO EXIT 00094001
0000B6	47FD 0258		00258	102	B	FSAERR+35*4(R13)	00095001
				103 *			00096001
				104 *	ADCONS	AND CONSTANTS AREA	00097001
				105 *			00098001
0000BA	0000						
0000BC	00000001			106 KF1	DC	F'1'	INTERGER CONSTANT OF ONE 00099001
				107 *			00100001
		001CC		108 FSAERR	EQU	X'1CC'	00101001
				109 *			00102001
				110 *	REGISTER	EQUATES	00103001
				111 *			00104001
				112	IEZREGS		00105001
	00000			113+R0	EQU	0	01-IEZRE
	00001			114+R1	EQU	1	01-IEZRE
	00002			115+R2	EQU	2	01-IEZRE
	00003			116+R3	EQU	3	01-IEZRE
	00004			117+R4	EQU	4	01-IEZRE
	00005			118+R5	EQU	5	01-IEZRE
	00006			119+R6	EQU	6	01-IEZRE
	00007			120+R7	EQU	7	01-IEZRE
	00008			121+R8	EQU	8	01-IEZRE
	00009			122+R9	EQU	9	01-IEZRE
	0000A			123+R10	EQU	10	01-IEZRE
	0000B			124+R11	EQU	11	01-IEZRE
	0000C			125+R12	EQU	12	01-IEZRE
	0000D			126+R13	EQU	13	01-IEZRE
	0000E			127+R14	EQU	14	01-IEZRE
	0000F			128+R15	EQU	15	01-IEZRE
				129 *			00106001
				130	END		00107001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21				
ERROR	2	000000B0	00000001	I			100	58B								
EXIT	4	000000A6	00000001	I			94	63B	70B	88B	92B	101B				
FSAERR	1	000001CC		U			108	102B								
IHIFIIXP	1	00000000	00000001	J			31	51U								
JUMP	2	0000007E	00000001	I			80	76B								
KF1	4	000000BC	00000001	F	F		106	73	93							
LOAD1	4	000000A2	00000001	I			93	60B								
LOOP	4	0000006A	00000001	I			74	85B								
NEXT	2	00000092	00000001	I			87	81B								
PLUS	2	00000064	00000001	I			72	68B								
R0	1	00000000		U			113	56M	69M	72	87M	93M	94			
R1	1	00000001		U			114	52	54	94						
R13	1	0000000D		U			126	94	102							
R15	1	0000000F		U			128	51U								
R2	1	00000002		U			115	77M	78M	79M						
R3	1	00000003		U			116	73M	87							
R4	1	00000004		U			117	82M	83M	84M						
R5	1	00000005		U			118	53M	56	61M	62M	64M	65M	72M	77	82
R6	1	00000006		U			119	55M	59M	67M	74M	80M	90M	100M		
R7	1	00000007		U			120	52M	53	54M	55	75M	91M			
TEST	4	00000098	00000001	I			90	66B								

[illegible]

Con	Source	Members
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X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

FII				USING Map							PAGE			
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.21
51		USING	Ordinary	00000001	00000000	00001000	15	000BC	101	IHIFIIXP,R15				

X390 3.1.04 2012/08/17 13.21

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIFII      PROCSTEP: X390

Primary input: lines      1 to      107 of SYSD.ALGOLFRT.ASM(IHIFII)

SYSLIB library records read: 161

SYSUT1 work file size: 12350 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 8560 bytes

SYSLIN file records written: 6

TXA000I Return code 0, elapsed time 0.14 seconds.

No uninitialized areas found



**IHIFRI**

**LEVEL**

**V2.M01**

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Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSUpPess	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIFRI)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00122
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00003001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY		00004001
				4 *			00005001
				5 *	STATUS - LEVEL 2.1		00006001
				6 *			00007001
				7 *	FUNCTION/OPERATION - SEE CODE		00008001
				8 *			00009001
				9 *	ENTRY POINT -		00010001
				10 *	IHIFRI - POWER FUNCTION, REAL**INT, SHORT		00011001
				11 *	LA R1,PARMLIST		00012001
				12 *	BALR R14,R15		00013001
				13 *	DATA PASSED BY NAME		00014001
				14 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00015001
				15 *			00016001
				16 *	INPUT - N/A		00017001
				17 *			00018001
				18 *	OUTPUT - N/A		00019001
				19 *			00020001
				20 *	EXTERNAL ROUTINES - N/A		00021001
				21 *			00022001
				22 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0		00023001
				23 *			00024001
				24 *	EXIT - ERROR -		00025001
				25 *	IF BASE IS ZERO AND EXPONENT NOT POSITIVE GOTO ERROR		00026001
				26 *	ROUTINE VIA		00027001
				27 *	B FSAERR+35*4(R13)		00028001
				28 *			00029001
				29 *	TABLES/WORKAREAS - N/A		00030001
				30 *			00031001
000000		00000	0009C	31	IHIFRIPX CSECT		00032001
				32 *			00033001
				33	ENTRY IHIFRI		00034001
				34 *			00035001
				35 *	FLOATING POINT REGISTERS		00036001
				36 *			00037001
		00000		37	FPR0 EQU 0	REG FOR BASE NO, PASSING RESULT	00038001
		00002		38	FPR2 EQU 2	REG FOR FACTOR, COMPUTING RESULT	00039001
				39 *			00040001
				40 *	GENERAL PURPOSE REGISTERS		00041001
				41 *			00042001
				42 *	R0	REG FOR TESTING FOR MINUS EXPN	00043001
				43 *	R2	REG FOR EXPONENT IN COMPUTATION	00044001
				44 *			00045001
				45	IHIFRI SAVE (14,12),,'IHIFRIPX LEVEL 2.1 &SYSDATE &SYSTIME'		00046001
000000	47F0 F026		00026	46+	IHIFRI B 38(0,15)	BRANCH AROUND ID	01-SAVE
000004	21			47+	DC AL1(33)	LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C6D9C9E7D7			48+	DC CL32'IHIFRIPX LEVEL 2.1 08/17/12 13.2'	IDENTIFIER	01-SAVE
000025	F1			49+	DC CL1'1'	IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	50+	STM 14,12,12(13)	SAVE REGISTERS	01-SAVE
				51 *			00047001
		R:F	00000	52	USING IHIFRIPX,R15		00048001
00002A	5830 1000		00000	53	L R3,0(,R1)	LOAD PLIST OF BASE NO IN R3	00049001
00002E	7800 3000		00000	54	LE FPR0,0(,R3)	LOAD BASE NO INTO FPR0	00050001
000032	5830 1004		00004	55	L R3,4(,R1)	LOAD PLIST OF EXPONENT IN R3	00051001
000036	5820 3000		00000	56	L R2,0(,R3)	LOAD EXPONENT INTO R2	00052001
00003A	3200			57	LTER FPR0,FPR0	BASE NO +, - OR ZERO ?	00053001
00003C	4780 F08E		0008E	58	BZ ERROR	ZERO, BRANCH TO ERROR	00054001
000040	1B00			59	SR R0,R0	SET NEGATIVE EXPN SWITCH TO 0	00055001
000042	1222			60	LTR R2,R2	EXPONENT +, - OR ZERO ?	00056001
000044	4720 F052		00052	61	BP PLUS	+VE, BRANCH TO PLUS	00057001
000048	4780 F084		00084	62	BZ LOAD1	ZERO, BRANCH TO LOAD1	00058001
00004C	1322			63	LCR R2,R2	MINUS, CONVERT TO 2S COMPLIMENT	00059001
00004E	4100 0001		00001	64	LA R0,1	SET EXP SW TO ONE FOR MINUS EXPN	00060001
000052	7820 F098		00098	65	PLUS LE FPR2,KFPONE	LOAD FACTOR OF ONE IN FPR2	00061001
000056	8C20 0001		00001	66	LOOP SRDL R2,1	SHIFT LOW BIT R2 INTO R3	00062001
00005A	1233			67	LTR R3,R3	LOWORDER BIT OF R2 MAKE R3 NEG ?	00063001
00005C	4780 F062		00062	68	BNM JUMP	NO, BRANCH TO JUMP	00064001
000060	3C20			69	MER FPR2,FPR0	YES, MULTIPLY FPR2 BY FPR0	00065001
000062	1222			70	JUMP LTR R2,R2	EXPONENT +, -, OR ZERO ?	00066001
000064	4780 F06E		0006E	71	BZ NEXT	EXPONENT ZERO, BRANCH TO NEXT	00067001
000068	3C00			72	MER FPR0,FPR0	MULT BASE NO BY DOUBLING ITSELF	00068001
00006A	47F0 F056		00056	73	B LOOP	LOOP TO TEST NEXT EXPN BIT	00069001
				74 *			00070001
00006E	1200			75	NEXT LTR R0,R0	R0 +, - OR ZERO ?	00071001
000070	4780 F07E		0007E	76	BZ SWAP	EXPN - MINUS, BRANCH TO SWAP	00072001
000074	7800 F098		00098	77	LE FPR0,KFPONE	LOAD ONE IN FPR0 AS DIVIDEND	00073001
000078	3D02			78	DER FPR0,FPR2	DIV BASE REG BY FPR2 (RESULT)	00074001
00007A	47F0 F088		00088	79	B EXIT	EXIT (RESULT IN FPR0)	00075001
				80 *			00076001
00007E	3802			81	SWAP LER FPR0,FPR2	LOAD FPR2 INTO FPR0	00077001
000080	47F0 F088		00088	82	B EXIT	EXIT (RESULT IN FPR0)	00078001
				83 *			00079001
000084	7800 F098		00098	84	LOAD1 LE FPR0,KFPONE	LOAD PLUS 1 AS RESULT IN FPR0	00080001
				85 *			00081001
				86	EXIT RETURN (14,12)	RESTORE CALLERS REGS AND RETURN	00082001
000088				87+	EXIT DS 0H		01-RETUR
000088	98EC D00C		0000C	88+	LM 14,12,12(13)	RESTORE THE REGISTERS	01-RETUR
00008C	07FE			89+	BR 14	RETURN	01-RETUR
				90 *			00083001
00008E	1222			91	ERROR LTR R2,R2	EXPONENT +, - ZERO ?	00084001
000090	4720 F088		00088	92	BP EXIT	EXPN IS POSITIVE, BRANCH TO EXIT	00085001
000094	47FD 0258		00258	93	B FSAERR+35*4(R13)	BASE NO = ZERO AND EXPONENT	00086001
				94 *		-> ZERO, UNDEFINED	00087001
				95 *			00088001
				96 *	ADCONS AND CONSTANTS AREA		00089001
				97 *			00090001

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000098	41100000			98	KFPONE	DC E'1'	CONSTANT ONE IN SINGLE PREC FP 00091001
				99	*		00092001
		001CC		100	FSAERR	EQU X'1CC'	00093001
				101	*		00094001
				102	*	REGISTER EQUATES	00095001
				103	*		00096001
				104		IEZREGS	00097001
	00000			105+R0	EQU	0	01-IEZRE
	00001			106+R1	EQU	1	01-IEZRE
	00002			107+R2	EQU	2	01-IEZRE
	00003			108+R3	EQU	3	01-IEZRE
	00004			109+R4	EQU	4	01-IEZRE
	00005			110+R5	EQU	5	01-IEZRE
	00006			111+R6	EQU	6	01-IEZRE
	00007			112+R7	EQU	7	01-IEZRE
	00008			113+R8	EQU	8	01-IEZRE
	00009			114+R9	EQU	9	01-IEZRE
	0000A			115+R10	EQU	10	01-IEZRE
	0000B			116+R11	EQU	11	01-IEZRE
	0000C			117+R12	EQU	12	01-IEZRE
	0000D			118+R13	EQU	13	01-IEZRE
	0000E			119+R14	EQU	14	01-IEZRE
	0000F			120+R15	EQU	15	01-IEZRE
				121	*		00098001
				122		END	00099001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.21
ERROR	2	0000008E	00000001	I			91	58B			
EXIT	2	00000088	00000001	H	H		87	79B 82B 92B			
FPR0	1	00000000		U			37	54M 57M 69	72M 77M 78M 81M 84M		
FPR2	1	00000002		U			38	65M 69M 78	81		
FSAERR	1	000001CC		U			100	93B			
IHIFRI	4	00000000	00000001	I			46	33			
IHIFRIXP	1	00000000	00000001	J			31	52U			
JUMP	2	00000062	00000001	I			70	68B			
KFPONE	4	00000098	00000001	E	E		98	65 77 84			
LOAD1	4	00000084	00000001	I			84	62B			
LOOP	4	00000056	00000001	I			66	73B			
NEXT	2	0000006E	00000001	I			75	71B			
PLUS	4	00000052	00000001	I			65	61B			
R0	1	00000000		U			105	59M 64M 75M			
R1	1	00000001		U			106	53 55			
R13	1	0000000D		U			118	93			
R15	1	0000000F		U			120	52U			
R2	1	00000002		U			107	56M 60M 63M 66M 70M 91M			
R3	1	00000003		U			108	53M 54 55M 56 67M			
SWAP	2	0000007E	00000001	I			81	76B			

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.21

0(0)	50	59M	64M	75M	88M				
1(1)	50	53	55	88M					
2(2)	50	56M	60M	63M	66M	70M	88M	91M	
3(3)	50	53M	54	55M	56	66M	67M	88M	
4(4)	50	88M							
5(5)	50	88M							
6(6)	50	88M							
7(7)	50	88M							
8(8)	50	88M							
9(9)	50	88M							
10(A)	50	88M							
11(B)	50	88M							
12(C)	50	88M							
13(D)	50	88	93N						
14(E)	50	88M	89B						
15(F)	46B	50	52U	88M					

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

FRI				USING Map							PAGE			
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.21
52		USING	Ordinary	00000001	00000000	00001000	15	00098	92	IHIFRXP,R15				



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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIFRI      PROCSTEP: X390

Primary input: lines      1 to      99 of SYSD.ALGOLFRT.ASM(IHIFRI)

SYSLIB library records read: 161

SYSUT1 work file size: 11657 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 7920 bytes

SYSLIN file records written: 5

TXA000I Return code 0, elapsed time 0.14 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIFRXP 00009C 4

**IHIFRR**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIFRR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00126
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
				2 *		00003001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00004001
				4 *		00005001
				5 *	STATUS - LEVEL 2.1	00006001
				6 *		00007001
				7 *	FUNCTION/OPERATION - SEE CODE	00008001
				8 *		00009001
				9 *	ENTRY POINT -	00010001
				10 *	IHIFRR - POWER FUNCTION, REAL**REAL, SHORT	00011001
				11 *	LA R1,PARMLIST	00012001
				12 *	BALR R14,R15	00013001
				13 *	DATA PASSED BY NAME	00014001
				14 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE	00015001
				15 *		00016001
				16 *	INPUT - N/A	00017001
				17 *		00018001
				18 *	OUTPUT - N/A	00019001
				19 *		00020001
				20 *	EXTERNAL ROUTINES -	00021001
				21 *	IHISLO - LOGARITHM FUNCTION, SHORT PRECISION	00022001
				22 *	IHISEX - EXPONENTIAL FUNCTION, SHORT PRECISION	00023001
				23 *		00024001
				24 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0	00025001
				25 *		00026001
				26 *	EXIT - ERROR -	00027001
				27 *	IF BASE IS ZERO AND EXPONENT NOT POSITIVE GOTO ERROR	00028001
				28 *	ROUTINE VIA	00029001
				29 *	B FSAERR+35*4(R13)	00030001
				30 *		00031001
				31 *	TABLES/WORKAREAS - N/A	00032001
				32 *		00033001
000000		00000	000F4	33	IHIFRRXP CSECT	00034001
				34 *		00035001
				35	ENTRY IHIFRR	00036001
				36 *		00037001
				37 *	FLOATING POINT REGISTERS	00038001
				38 *		00039001
		00000		39	FPR0 EQU 0 BASE NO, PASSING RESULT	00040001
		00002		40	FPR2 EQU 2 EXPONENT IN COMPUTATION	00041001
				41 *		00042001
				42 *	GENERAL PURPOSE REGISTERS	00043001
				43 *		00044001
				44 *	R1 PARAMETER LIST REF	00045001
				45 *	R2 SECOND BASE ADDR	00046001
				46 *	R3 INDEXING PARAMETER ADDR	00047001
				47 *		00048001
				48	IHIFRR SAVE (14,12),,'IHIFRRXP LEVEL 2.1 &SYSDATE &SYSTIME'	00049001
000000	47F0 F026		00026	49+	IHIFRR B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			50+	DC AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C6D9D9E7D7			51+	DC CL32'IHIFRRXP LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			52+	DC CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	53+	STM 14,12,12(13) SAVE REGISTERS	01-SAVE
				54 *		00050001
00002A	182F			55	LR R2,R15	00051001
		R:2	00000	56	USING IHIFRRXP,R2	00052001
00002C	183D			57	LR R3,R13	00053001
00002E	41D0 2098		00098	58	LA R13,SAVEAREA	00054001
000032	5030 D004		00004	59	ST R3,4(R13)	00055001
000036	50D0 3008		00008	60	ST R13,8(R13)	00056001
00003A	5830 1000		00000	61	L R3,0(R1)	00057001
00003E	7800 3000		00000	62	LE FPR0,0(R3)	00058001
000042	5830 1004		00004	63	L R3,4(R1)	00059001
000046	7820 3000		00000	64	LE FPR2,0(R3)	00060001
00004A	3200			65	LTER FPR0,FPR0	00061001
00004C	4780 208A		0008A	66	BZ ERROR	00062001
000050	4740 2090		00090	67	BM ERRORM	00063001
000054	3222			68	LTER FPR2,FPR2	00064001
000056	4780 207C		0007C	69	BZ LOAD1	00065001
00005A	7020 20E0		000E0	70	ST FPR2,PARAM	00066001
00005E	58F0 20EC		000EC	71	L R15,VIHISLO	00067001
000062	05EF			72	BALR R14,R15	00068001
000064	7820 20E0		000E0	73	LE FPR2,PARAM	00069001
000068	3C02			74	MER FPR0,FPR2	00070001
00006A	7000 20E0		000E0	75	STE FPR0,PARAM	00071001
00006E	4110 20E8		000E8	76	LA R1,ADCPAR	00072001
000072	58F0 20F0		000F0	77	L R15,VIHISEX	00073001
000076	05EF			78	BALR R14,R15	00074001
000078	47F0 2080		00080	79	B EXIT	00075001
				80 *		00076001
00007C	7800 20E4		000E4	81	LOAD1 LE FPR0,KFPONE	00077001
000080	58D0 D004		00004	82	EXIT L R13,4(R13)	00078001
				83 *		00079001
				84	RETURN (14,12)	00080001
000084	98EC D00C		0000C	85+	LM 14,12,12(13)	01-RETUR
000088	07FE			86+	BR 14	01-RETUR
				87 *		00081001
00008A	3222			88	ERROR LTER FPR2,FPR2	00082001
00008C	4720 2080		00080	89	BP EXIT	00083001
000090	58D0 D004		00004	90	ERRORM L R13,4(R13)	00084001
000094	47FD 0258		00258	91	B FSAERR+35*4(R13)	00085001
				92 *		00086001
				93 *		00087001
				94 *	CONSTANTS AND ADCON AREAS	00088001
				95 *		00089001
000098	0000000000000000			96	SAVEAREA DC 18F'0'	00090001
0000E0	00000000			97	PARAM DC F'0'	00091001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000E4	41100000			98	KFPONE	DC E'1'	CONSTANT ONE IN SINGLE PREC FP 00092001
				99	*		00093001
0000E8	000000E0			100	ADCPAR	DC A(PARAM)	ADDR OF PARAMETER FOR EXP RTN 00094001
				101	*		00095001
0000EC	00000000			102	VIHISLO	DC V(IHISLO)	LOG MATH LIBRARY ROUTINE 00096001
0000F0	00000000			103	VIHISEX	DC V(IHISEX)	EXP MATH LIBRARY ROUTINE 00097001
				104	*		00098001
		001CC		105	FSAERR	EQU X'1CC'	00099001
				106	*		00100001
				107	*	REGISTER EQUATES	00101001
				108	*		00102001
				109		IEZREGS	00103001
	00000			110+R0	EQU	0	01-IEZRE
	00001			111+R1	EQU	1	01-IEZRE
	00002			112+R2	EQU	2	01-IEZRE
	00003			113+R3	EQU	3	01-IEZRE
	00004			114+R4	EQU	4	01-IEZRE
	00005			115+R5	EQU	5	01-IEZRE
	00006			116+R6	EQU	6	01-IEZRE
	00007			117+R7	EQU	7	01-IEZRE
	00008			118+R8	EQU	8	01-IEZRE
	00009			119+R9	EQU	9	01-IEZRE
	0000A			120+R10	EQU	10	01-IEZRE
	0000B			121+R11	EQU	11	01-IEZRE
	0000C			122+R12	EQU	12	01-IEZRE
	0000D			123+R13	EQU	13	01-IEZRE
	0000E			124+R14	EQU	14	01-IEZRE
	0000F			125+R15	EQU	15	01-IEZRE
				126	*		00104001
				127		END	00105001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.21
ADCPAR	4	000000E8	00000001	A	A		100	76			
ERROR	2	0000008A	00000001	I			88	66B			
ERRORM	4	00000090	00000001	I			90	67B			
EXIT	4	00000080	00000001	I			82	79B 89B			
FPR0	1	00000000		U			39	62M 65M	74M	75	81M
FPR2	1	00000002		U			40	64M 68M	70	73M	74 88M
FSAERR	1	000001CC		U			105	91B			
IHIFRR	4	00000000	00000001	I			49	35			
IHIFRRXP	1	00000000	00000001	J			33	56U			
IHISEX	1	00000000	00000003	T			103	103			
IHISLO	1	00000000	00000002	T			102	102			
KFPONE	4	000000E4	00000001	E	E		98	81			
LOAD1	4	0000007C	00000001	I			81	69B			
PARAM	4	000000E0	00000001	F	F		97	70M 73 75M 100			
R1	1	00000001		U			111	61 63 76M			
R13	1	0000000D		U			123	57 58M	59	60	82M 90M 91
R14	1	0000000E		U			124	72M 78M			
R15	1	0000000F		U			125	55 71M	72B	77M	78B
R2	1	00000002		U			112	55M 56U			
R3	1	00000003		U			113	57M 59	60	61M	62 63M 64
SAVEAREA	4	00000098	00000001	F	F		96	58			
VIHISEX	4	000000F0	00000001	V	V		103	77			
VIHISLO	4	000000EC	00000001	V	V		102	71			

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.21

0(0)	53	85M								
1(1)	53	61	63	76M	85M					
2(2)	53	55M	56U	85M						
3(3)	53	57M	59	60	61M	62	63M	64	85M	
4(4)	53	85M								
5(5)	53	85M								
6(6)	53	85M								
7(7)	53	85M								
8(8)	53	85M								
9(9)	53	85M								
10(A)	53	85M								
11(B)	53	85M								
12(C)	53	85M								
13(D)	53	57	58M	59	60	82M	85	90M	91N	
14(E)	53	72M	78M	85M	86B					
15(F)	49B	53	55	71M	72B	77M	78B	85M		



Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

FRR				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21	
56		USING	Ordinary	00000001	00000000	00001000	2	000F0	89	IHIFRRXP,R2				

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIFRR      PROCSTEP: X390

Primary input: lines      1 to      105 of SYSD.ALGOLFRT.ASM(IHIFRR)

SYSLIB library records read: 161

SYSUT1 work file size: 12208 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 8400 bytes

SYSLIN file records written: 9

TXA000I Return code 0, elapsed time 0.14 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIFRRXP 0000F4 4

**IHIFSA**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIFSA)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00130
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmnt	Source Statement	X390 3.1.04 2012/08/17 13.21
2	*					00002001
3	*				COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
4	*					00004001
5	*				FUNCTION/OPERATION -	00005001
6	*				IHIFSA IS A COLLECTION OF ABOUT 20 ROUTINES WHICH ARE	00006001
7	*				REQUIRED FOR THE EXECUTION OF ALGOL PROGRAMS. THE ENTRY	00007001
8	*				POINT AND PURPOSE OF EACH ROUTINE IS LISTED UNDER ENTRY	00008001
9	*				POINTS BELOW DETAILED INFORMATION ON THE FUNCTION,	00009001
10	*				CALLING SEQUENCE, TRANSMISSION OF PARAMETERS ETC CAN BE	00010001
11	*				FOUND IN THE COMMENTARY WHICH PRECEDES THE PROGRAM	00011001
12	*				LISTING FOR EACH ROUTINE	00012001
13	*					00013001
14	*				THE MODULE CONSISTS OF TWO CONTROL SECTIONS, IHIFSARA	00014001
15	*				AND IHIFSARB.	00015001
16	*				IHIFSARA CONTAINS THE ROUTINES, TABLES AND OTHER	00016001
17	*				INFORMATION USED DURING THE EXECUTION OF THE ALGOL	00017001
18	*				OBJECT PROGRAM	00018001
19	*				IHIFSARB CONTAINS MAINLY THE INITIALIZATION AND	00019001
20	*				TERMINATION ROUTINES WITH THEIR ASSOCIATED TABLES AND	00020001
21	*				WORK AREAS	00021001
22	*					00022001
23	*				R13 - BASE REGISTER FOR IHIFSARA	00023001
24	*				R7 - BASE REGISTER FOR IHIFSARB	00024001
25	*					00025001
26	*				ENTRY POINTS -	00026001
27	*				MOST OF THE ENTRY POINTS LISTED HERE ARE COLLECTED IN A	00027001
28	*				BRANCH LIST LOCATED AT BRLIST. THE ENTRY POINTS	00028001
29	*				CONTAINED IN THIS BRANCH LIST ARE MARKED WITH AN	00029001
30	*				ASTERISK AFTER THE NAME IN THE LISTING BELOW	00030001
31	*					00031001
32	*				CAP1* - CALL ACTUAL PARAMETER	00032001
33	*				PART 1. ENTER THUNK ROUTINE FROM A PROCEDURE	00033001
34	*				CAP2* - CALL ACTUAL PARAMETER	00034001
35	*				PART 2. RETURN FROM THE THUNK ROUTINE TO	00035001
36	*				THE PROCEDURE	00036001
37	*				PROLOG* - ENTER A PROCEDURE WHEN IT IS CALLED VIA AN	00037001
38	*				ACTUAL PARAMETER	00038001
39	*				PROLOG* - ENTER A BLOCK OR A PROCEDURE	00039001
40	*				RETROG* - LEAVE A BLOCK OR PROCEDURE VIA A 'GO TO'	00040001
41	*				STATEMENT	00041001
42	*				EPILOG* - RETURN FROM A PROCEDURE VIA THE 'END'	00042001
43	*				STATEMENT	00043001
44	*				EPILOGB* - LEAVE A BLOCK VIA THE 'END' STATEMENT	00044001
45	*				FRDSA - FREE STORAGE FOR DSA AND ARRAYS	00045001
46	*				SYNONYM FOR EPILOGB WHEN USED AS A SUBROUTINE	00046001
47	*				BY THE ERROR ROUTINE IHGERRR	00047001
48	*				CSWE1* - CALL SWITCH ELEMENT, PART 1	00048001
49	*				CSWE2* - CALL SWITCH ELEMENT, PART 2	00049001
50	*				LOADPP* - LOAD A PRECOMPILED PROCEDURE	00050001
51	*				SPDECL - STANDARD PROCEDURE DECLARATION ROUTINE	00051001
52	*				(ENTERED VIA THE PROLOG ROUTINE)	00052001
53	*				VALUCALL* - HANDLE FORMAL PARAMETERS CALLED BY VALUE	00053001
54	*				GETMSTO* - GET MAIN STORAGE FOR ARRAYS	00054001
55	*				CNVIRD - CONVERT INTEGER TO REAL	00055001
56	*				CNVIRDI - CONVERT REAL TO INTEGER	00056001
57	*				ENTIER - EXECUTE ALGOL ENTIER FUNCTION	00057001
58	*				TRACE* - STORE THE CURRENT SEMICOLON NUMBER	00058001
59	*				IHGFSAIN - INITIALIZE FOR PROGRAM EXECUTION AND GIVE	00059001
60	*				CONTROL TO THE OBJECT MODULE	00060001
61	*				TERMNTE* - TERMINATE THE EXECUTION	00061001
62	*				PIROUT - PROGRAM INTERRUPT ROUTINE	00062001
63	*				FSAERR - STORE ERROR NUMBER AND CALL THE ERROR	00063001
64	*				ROUTINE IHIERRR	00064001
65	*					00065001
66	*				INPUT -	00066001
67	*				IF THE TRACE OPTION IS USED, THE TERMINATION ROUTINE MAY	00067001
68	*				READ A TABLE OF SEMICOLON NUMBERS, WHICH HAS BEEN	00068001
69	*				WRITTEN ON SYSUT1 BY THE TRACE ROUTINE	00069001
70	*					00070001
71	*				OUTPUT -	00071001
72	*				IF THE TRACE OPTION IS USED, THE TRACE ROUTINE MAY WRITE	00072001
73	*				A TABLE OF SEMICOLON NUMBERS ON SYSUT1. THIS TABLE IS	00073001
74	*				READ AND THEN WRITTEN ON SYSPRINT IN EDITED FORMAT BY	00074001
75	*				THE TERMINATION ROUTINE.	00075001
76	*				THE MESSAGE 'END OF ALGOL PROGRAM EXECUTION' IS WRITTEN	00076001
77	*				ON SYSPRINT AS THE FINAL OUTPUT FROM THE EXECUTION.	00077001
78	*					00078001
79	*				EXTERNAL ROUTINES -	00079001
80	*				IHIOROP - OPEN A DATASET (USED ONLY FOR SYSPRINT)	00080001
81	*				IHIORCL - CLOSE A DATASET (USED ONLY FOR SYSPRINT)	00081001
82	*				IHIORCP - CLOSE ALL OPEN DATASETS (EXCEPT SYSUT1)	00082001
83	*				IHIORNX - HANDLE THE NEXT I/O RECORD	00083001
84	*				IHIERROR - EDIT AND PRINT AN ERROR MESSAGE AND, IF	00084001
85	*				REQUESTED, AN ALGOL STORAGE DUMP.	00085001
86	*				(ENTERED BY CALL)	00086001
87	*					00087001
88	*				THE FOLLOWING TWO EXTERNAL TABLES ARE IN THE OBJECT	00088001
89	*				MODULE -	00089001
90	*				IHIENTIF - INFORMATION NEEDED FOR ENTERING THE OBJECT MODULE	00090001
91	*				FORMAT -	00091001
92	*				IHIENTIF DC A(PBTAB) ADDR OF PROGRAM BLOCK TABLE	00092001
93	*				DC A(LATAB) ADDR OF LABEL ADDR TABLE	00093001
94	*				DC X'02' OR X'00' FOR SHORT/LONG PREC	00094001
95	*				DC AL3(ENTRYPOINT) ADDR OF FIRST INSTRUCTION	00095001
96	*					00096001
97	*				IHIDSTAB - INFORMATION ABOUT THE STATUS OF EACH DATASET USED	00097001

Loc Object Code Addr1 Addr2 Stmt Source Statement X390 3.1.04 2012/08/17 13.21

```
98 *          FORMAT AND USE - 00098001
99 *          SEE THE DSECT DSTABLE AND THE LISTING OF 00099001
100 *          THE I/O SUBROUTINE MODULE IHIIORTN 00100001
101 * 00101001
102 *          EXITS - NORMAL - 00102001
103 *          THE TERMINATION ROUTINE IS ENTERED BY A BRANCH TO 00103001
104 *          TERMTE, AND A FINAL RETURN IS BY A RETURN MACRO WITH 00104001
105 *          THE RETURN CODE ZERO IN R15 00105001
106 * 00106001
107 *          EXITS - ERRORS - 00107001
108 *          ON RETURN FROM THE ERROR ROUTINE IHIERROR, THE 00108001
109 *          TERMINATION ROUTINE IS ENTERED BY A BRANCH TO ALGTRMA, 00109001
110 *          AND A FINAL RETURN IS MADE BY A RETURN MACRO WITH THE 00110001
111 *          RETURN CODE 16 IN R15 00111001
112 * 00112001
113 *          TABLES/WORK AREAS - 00113001
114 *          THE LOWER PART OF IHIFSARA CONTAINS A BLOCK OF WORK 00114001
115 *          AREAS AND CONSTANTS WHICH ARE USED IN COMMON BY SEVERAL 00115001
116 *          ROUTINES. 00116001
117 *          THE MOST IMPORTANT ARE - 00117001
118 *          SAVE - STANDARD SAVEAREA USED BY ALL FIRST LEVEL 00118001
119 *          SUBROUTINES EXCEPT THOSE CONTAINED IN THIS MODULE 00119001
120 *          ASAVE - SAVE AREA USED BY SOME ROUTINES IN THIS MODULE 00120001
121 *          FCTVALST - STORAGE FOR THE RESULT OF AN ALGOL FUNCTION 00121001
122 *          PROLPBN - PROGRAM BLOCK NUMBER OF A BLOCK OR PROCEDURE 00122001
123 *          TO BE ENTERED VIA THE PROLOG ROUTINE 00123001
124 *          PGOPSW - THE OLD PSW IN CASE OF A PROGRAM INTERRUPT 00124001
125 *          SCRCs - THE CURRENT SEMICOLON NUMBER 00125001
126 *          OPTSW - FLAG BITS REPRESENTING EXECUTION TIME OPTIONS 00126001
127 *          AND SWITCHES FOR CONTROLLING THE PROGRAM FLOW 00127001
128 *          FSAERCOD - ERROR NUMBER IDENTIFYING AN EXECUTION ERROR 00128001
129 *          IHIFSARS - FOUR POINTERS FOR CONTROLLING THE RETURN 00129001
130 *          ADDR STACK 00130001
131 *          BRLIST - A LIST OF ENTRY POINTS TO MOST OF THE ROUTINES 00131001
132 *          MENTIONED UNDER 'ENTRY POINTS'. THE LIST CONSISTS 00132001
133 *          MAINLY OF BRANCH INSTRUCTIONS 00133001
134 *          IHIFSAER - A LIST OF BAL INSTRUCTIONS, EACH 00134001
135 *          CORRESPONDING TO ONE TYPE OF ERROR, THE 00135001
136 *          NUMBER OF WHICH IS DETERMINED BY ITS POSITION 00136001
137 *          IN THE LIST 00137001
138 * 00138001
139 *          OTHER WORK AREAS AND CONSTANTS OF GENERAL 00139001
140 *          INTEREST ARE - 00140001
141 *          PARMLIST - A LIST OF THE VALID EXECUTION OPTION 00141001
142 *          PARAMETERS 00142001
143 *          TRBUF - BUFFER POINTERS AND RECORD COUNTER FOR 00143001
144 *          CONTROLLING THE OUTPUT OF TRACING 00144001
145 *          INFORMATION ON SYSUT1 00145001
146 *          PIETAB - A LIST OF 16 ADDR CONSTANTS EACH POINTING 00146001
147 *          TO AN ENTRY IN IHIFSAER, WHICH CORRESPONDS 00147001
148 *          TO A TYPE OF PROGRAM INTERRUPT 00148001
149 *          FPINST - A LIST OF FLOATING POINT INSTRUCTIONS USED BY 00149001
150 *          THE VALUCALL AND SPDECL ROUTINES 00150001
151 *          CNVINSTE - INSTRUCTIONS TO BE INSERTED INTO THE CONVERT 00151001
152 *          ROUTINE FOR SHORT PRECISION 00152001
153 *          CNVINSTD - INSTRUCTIONS TO BE INSERTED INTO THE CONVERT 00153001
154 *          ROUTINE FOR LONG PRECISION 00154001
155 * 00155001
156 *          ATTRIBUTES - THIS MODULE IS SERIALLY REUSABLE 00156001
157 * 00157001
158 *          NOTES - 00158001
159 *          THIS MODULE IS ONLY INTENDED TO BE USED WHEN LINKAGE 00159001
160 *          EDITED TOGETHER WITH AN OS/360 ALGOL OBJECT MODULE AND 00160001
161 *          WITH THE OS/360 ALGOL I/O ROUTINES. FOR REASONS OF 00161001
162 *          EFFICIENCY CERTAIN LOCAL CONVENTIONS ARE OBEYED IN THE 00162001
163 *          COMMUNICATION BETWEEN THESE MODULES 00163001
164 *          REGISTER SAVING AND RESTORING IS ONLY DONE WHEN 00164001
165 *          REQUIRED AND THEN GENERALLY IN A NON STANDARD FASHION 00165001
166 * 00166001
167 *          USE OF GENERAL REGISTERS WHEN COMMUNICATING WITH THE 00167001
168 *          OBJECT MODULE - 00168001
169 *          R8 (ADR) MAY BE USED AS RETURN REGISTER AND 00169001
170 *          PARAMETER POINTER 00170001
171 *          R10 (CDSA) -> CURRENT ACTIVE DATA STORAGE AREA 00171001
172 *          R11 (PBT) -> PROGRAM BLOCK TABLE IN THE OBJECT MODULE 00172001
173 *          R12 (LAT) -> LABEL ADDR TABLE IN THE OBJECT MODULE 00173001
174 *          R13 (FSA) SERVES BOTH AS THE STANDARD SAVE AREA 00174001
175 *          REGISTER AND AS BASE REGISTER FOR THE 00175001
176 *          CSECT IHIFSARA 00176001
177 *          R14 TRANSMIT INTEGER VALUES TO OR 00177001
178 *          FROM CONVERT ROUTINES 00178001
179 *          R15 RETURN REGISTER AND PARAMETER POINTER 00179001
180 *          FP0 TRANSMIT REAL VALUES TO OR FROM CONVERT ROUTINES 00180001
181 * 00181001
182 *          USE OF GENERAL REGISTERS WHEN COMMUNICATING WITH THE 00182001
183 *          I/O ROUTINES - 00183001
184 * 00184001
185 *          R5 (DSN) -> RELEVANT ENTRY IN THE DATASET TABLE 00185001
186 *          R6 (DSNR) DATASET NUMBER 00186001
187 *          R12 (FSAA) BASE ADDR OF IHIFSARA 00187001
188 * 00188001
189 *          PARAMETER VALUES AND OTHER INFORMATION ARE OFTEN 00189001
190 *          TRANSMITTED IMPLICITLY VIA THE COMMONLY ACCESSIBLE 00190001
191 *          WORKING STORAGE IN THE LOWER PART OF IHIFSARA AND (FOR 00191001
192 *          I/O ROUTINES) VIA THE DATASET TABLE IN THE OBJECT 00192001
193 *          MODULE 00193001
```



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				194 *			00194001
				195 *		THE MODULE WORKS FOR EITHER SINGLE OR DOUBLE FLOATING	00195001
				196 *		POINT PRECISION. IT SENSES THE PRECISION FOR WHICH THE	00196001
				197 *		OBJECT MODULE WAS COMPILED AND INITIALIZES ITSELF	00197001
				198 *		ACCORDINGLY. THE AREAS AFFECTED ARE THE LIST OF FLOATING	00198001
				199 *		POINT INSTRUCTIONS AT FPINST AND THE BLOCK OF	00199001
				200 *		INSTRUCTIONS STARTING AT CNVINST IN THE CONVERT	00200001
				201 *		ROUTINES	00201001
				202 *			00202001
				203 *		THE OPERATION OF THIS MODULE DEPENDS UPON AN INTERNAL	00203001
				204 *		REPRESENTATION OF THE EXTERNAL CHARACTER SET WHICH IS	00204001
				205 *		EQUIVALENT TO THE ONE USED AT ASSEMBLY TIME	00205001
				206 *			00206001
000000		00000	00E6E	207	IHIFSARA	CSECT	00207001
				208 *			00208001
				209 *		REGISTERS FOR COMMUNICATION WITH THE OBJECT MODULE	00209001
				210 *			00210001
				211 *	R8	ADDRESSING REGISTER	00211001
				212	GDSA EQU 9	GLOBAL DSA	00212001
	00009			213	CDSA EQU 10	CURRENT DSA	00213001
	0000A			214	PBT EQU 11	PROGRAM BLOCK TABLE	00214001
	0000B			215	LAT EQU 12	LABEL ADDR TABLE	00215001
	0000C			216 *	R13	IHIFSARA BASE REGISTER	00216001
				217 *			00217001
				218 *		REGISTERS FOR COMMUNICATION WITH I/O SUBROUTINES	00218001
				219 *			00219001
				220 *	R5	-> DATASET TABLE ENTRY	00220001
				221 *	R6	DATASET NUMBER	00221001
				222	FSAA EQU 12	ALTERNATE FSA BASE REGISTER	00222001
	0000C			223 *			00223001
				224 *		REGISTERS USED BY TRACE AND TERMINATION ROUTINES	00224001
				225 *			00225001
				226 *	R4	BYTE POINTER IN TRACE BUFFER	00226001
				227 *	R5	SEMICOLON NUMBER	00227001
				228 *	R6	LOWER TRACE LIMIT	00228001
				229 *	R7	UPPER TRACE LIMIT	00229001
				230 *	R8	TRACE BUFFER ADDR	00230001
				231 *	R9	ALTERNATE TRACE BUFFER ADDR	00231001
				232 *	R10	LENGTH OF TRACE BUFFER	00232001
				233 *	R11	NUMBER OF TRACE RECORDS	00233001
				234 *			00234001
				235 *		FLOATING POINT REGISTER	00235001
				236 *			00236001
				237	FPR0 EQU 0		00237001
	00000			238 *			00238001
				239 *		BIT PATTERNS	00239001
				240 *			00240001
				241	BETABM EQU X'0C'	MASK FOR BETA BLOCK FLAG IN PBT	00241001
	0000C			242	CODEPRM EQU X'10'	MASK FOR CODE PROCEDURE IN PBT	00242001
	00010			243	PIMASK EQU X'04'	MASK FOR PI PROCEDURE IN PBT	00243001
	00004			244	RASLOADM EQU X'FE'	LOAD PROCEDURE ENTRY IN RAS	00244001
	000FE			245	RASPARMM EQU X'00'	CAP OR CSWE ENTRY IN RAS	00245001
	00000			246	SHORTBIT EQU X'10'	FP OPCODE MODIFIER	00246001
	00010			247 *			00247001
				248 *		SWITCHES IN OPTSW	00248001
				249 *			00249001
				250	DPSW EQU X'80'	DUMP OPTION SWITCH	00250001
	00080			251	TRSW EQU X'40'	TRACE OPTION SWITCH	00251001
	00040			252	SHSW EQU X'20'	SHORT PRECISION OPTION SWITCH	00252001
	00020			253	TERMSW EQU X'10'	TERMINATION ROUTINE ENTERED	00253001
	00010			254	ERROR EQU X'08'	ERROR ROUTINE ENTERED	00254001
	00008			255	UT1ERR EQU X'04'	ERROR ON SYSUT1	00255001
	00004			256	PRNTERR EQU X'02'	ERROR ON SYSPRINT	00256001
	00002			257	UCTRSW EQU X'41'	UNCONDITIONAL TRACE OPTION	00257001
	00041			258	PPTRSW EQU X'01'	TRACE PRECOMP PROCEDURES	00258001
	00001			259 *			00259001
				260 *		ESD SYMBOLS	00260001
				261 *			00261001
				262		ENTRY IHIFSAIN	00262001
				263 *			00263001
				264	EXTRN IHIDSTAB		00264001
				265	EXTRN IHIENTIF		00265001
				266	EXTRN IHIIOROP, IHIIORCL, IHIIORN, IHIIORCI, IHIIOREV		00266001
				267	EXTRN IHIIOROQ, IHIIOREN, IHIIORGP, IHIIORCP, IHIIORER		00267001
				268 *			00268001
				269		COPY FSAREA	00269001
				270=*			00001001
				271=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				272=*			00003001
				273=*		STATUS - LEVEL 2.1	00004001
				274=*			00005001
				275=*			00006001
				276=*			00007001
				277=*		COMMON DATA AREA	00008001
				278=*			00009001
				279=*		FSAREA	00010001
				280=*			00011001
				281=*			00012001
				282=*			00013001
				283=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				284=*		MODULES DURING THE EXECUTION	00015001
				285=*			00016001
				286=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				287=*		SUBROUTINES) BY R12	00018001
				288=*			00019001
				289=FSAREA	EQU *		00020001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				290=*			00021001
				291=*	SAVE	AREAS	00022001
				292=*			00023001
000000				293=	DS	18F	00024001
		00048		294=ASAVE	EQU	*-FSAREA	00025001
000048				295=	DS	18F	00026001
				296=*			00027001
				297=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				298=*			00029001
		00090		299=FCTVALST	EQU	*-FSAREA	00030001
000090				300=	DS	D	00031001
		00098		301=ASTLOC	EQU	*-FSAREA	00032001
000098	00000090			302=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		303=BRRST	EQU	*-FSAREA	00034001
		0009C		304=HW	EQU	BRRST	00035001
00009C				305=	DS	F	00036001
		000A0		306=PROLREG	EQU	*-FSAREA	00037001
0000A0				307=	DS	2A	00038001
				308=*			00039001
				309=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				310=*			00041001
0000A8				311=	DS	0H	00042001
0000A8	00			312=	DC	X'00'	00043001
		000A9		313=PROLPBN	EQU	*-FSAREA	00044001
0000A9	00			314=	DC	X'00'	00045001
		000AA		315=EIGHT	EQU	*-FSAREA	00046001
0000AA	0008			316=	DC	H'8'	00047001
				317=*			00048001
0000AC				318=	DS	0F	00049001
		000AC		319=ADSTAB	EQU	*-FSAREA	00050001
0000AC				320=	DS	A	00051001
		000B0		321=ANOTTAB	EQU	*-FSAREA	00052001
0000B0				322=	DS	A	00053001
				323=*			00054001
		000B4		324=IHIFSAST	EQU	*	00055001
		000B4		325=PGOPSW	EQU	*-FSAREA	00056001
0000B4				326=	DS	2F	00057001
		000BC		327=FSAPICA	EQU	*-FSAREA	00058001
0000BC	00000000			328=	DC	F'0'	00059001
		000C0		329=SCRCS	EQU	*-FSAREA	00060001
0000C0				330=	DS	H	00061001
		000C2		331=DTSW	EQU	*-FSAREA	00062001
		000C2		332=OPTSW	EQU	DTSW	00063001
0000C2	00			333=	DC	X'00'	00064001
		000C3		334=FSAERCOD	EQU	*-FSAREA	00065001
0000C3				335=	DS	C	00066001
				336=*			00067001
				337=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				338=*			00069001
0000C4				339=	DS	0F	00070001
		000C4		340=IHIFSARS	EQU	*	00071001
		000C4		341=RASSTART	EQU	*-FSAREA	00072001
0000C4				342=	DS	F	00073001
		000C8		343=RASPT	EQU	*-FSAREA	00074001
0000C8				344=	DS	F	00075001
		000CC		345=RASEND	EQU	*-FSAREA	00076001
0000CC				346=	DS	F	00077001
		000D0		347=RASPB	EQU	*-FSAREA	00078001
0000D0				348=	DS	F	00079001
				349=*			00080001
				350=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				351=*			00082001
0000D4				352=BRLIST	DS	0F	00083001
		000D4		353=CAP1	EQU	*-FSAREA	00084001
0000D4	4700 0000		00000	354=	NOP	0	00085001
		000D8		355=CAP2	EQU	*-FSAREA	00086001
0000D8	4700 0000		00000	356=	NOP	0	00087001
		000DC		357=PROLOGP	EQU	*-FSAREA	00088001
		000DC		358=PROLOGFP	EQU	PROLOGP	00089001
0000DC	4700 0000		00000	359=	NOP	0	00090001
		000E0		360=PROLOG	EQU	*-FSAREA	00091001
0000E0	4700 0000		00000	361=	NOP	0	00092001
		000E4		362=RETPROG	EQU	*-FSAREA	00093001
0000E4	4700 0000		00000	363=	NOP	0	00094001
		000E8		364=EPILOGP	EQU	*-FSAREA	00095001
0000E8	4700 0000		00000	365=	NOP	0	00096001
		000EC		366=EPILOGB	EQU	*-FSAREA	00097001
0000EC	4700 0000		00000	367=	NOP	0	00098001
		000F0		368=EPILPR3	EQU	*-FSAREA	00099001
0000F0	4700 0000		00000	369=	NOP	0	00100001
		000F4		370=CSWE1	EQU	*-FSAREA	00101001
0000F4	4700 0000		00000	371=	NOP	0	00102001
		000F8		372=CSWE2	EQU	*-FSAREA	00103001
0000F8	4700 0000		00000	373=	NOP	0	00104001
		000FC		374=LOADPP	EQU	*-FSAREA	00105001
0000FC	4700 0000		00000	375=	NOP	0	00106001
		00100		376=TRACE	EQU	*-FSAREA	00107001
000100	D200 0000 0000	00000	00000	377=	MVC	0(0),0	00108001
000106	4700 0000		00000	378=	NOP	0	00109001
00010A	4700 0000		00000	379=	NOP	0	00110001
		0010E		380=TERMNTE	EQU	*-FSAREA	00111001
00010E	4700 0000		00000	381=	NOP	0	00112001
		00112		382=BCR	EQU	*-FSAREA	00113001
000112	0700			383=	BCR	0,0	00114001
		00114		384=GETMSTO	EQU	*-FSAREA	00115001
000114	4700 0000		00000	385=	NOP	0	00116001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				386=*			00117001
		00118		387=VALUCALL	EQU	*-FSAREA	00118001
000118	4700 0000		00000	388=	NOP	0	00119001
		0011C		389=IORLST	EQU	*-FSAREA	00120001
00011C	4700 0000		00000	390=	NOP	0	00121001
				391=*			00122001
		001CC		392=FSAERR	EQU	X'1CC'	00123001
				393=*		DISPL FOR ERROR LIST	00124001
				394=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				395=*			00126001
		0020C		396=OUTOFB	EQU	FSAERR+4*16	00127001
		00218		397=NUMBIND	EQU	FSAERR+4*19	00128001
		00208		398=ARRAYBD	EQU	FSAERR+4*15	00129001
		0026C		399=ERROR40	EQU	FSAERR+4*40	00130001
		00224		400=OERR22	EQU	FSAERR+4*22	00131001
		00210		401=ENDLESL	EQU	FSAERR+4*17	00132001
		00220		402=OERR21	EQU	FSAERR+4*21	00133001
				403=*			00134001
				404 *			00270001
				405	COPY	FSAACNV	00271001
				406=*			00001001
				407=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				408=*			00003001
				409=*		STATUS - LEVEL 2.1	00004001
				410=*			00005001
				411=*****			00006001
				412=*			00007001
				413=*		TYPE CONVERSION ROUTINES	00008001
				414=*			00009001
				415=*		FSAACNV	00010001
				416=*			00011001
				417=*****			00012001
				418=*			00013001
				419=*		PERFORM CONVERSION BETWEEN INTEGER AND REAL TYPE	00014001
				420=*		FOR EITHER SINGLE OR DOUBLE PRECISION	00015001
				421=*			00016001
				422=*		CALLING SEQUENCES -	00017001
				423=*			00018001
				424=*		REAL TO INTEGER CONVERSION	00019001
				425=*	BAL	R8,CNVVDI(R13)	00020001
				426=*		REAL NUMBER IN FPR0	00021001
				427=*		RETURN WITH INTEGER IN R14	00022001
				428=*			00023001
				429=*	BAL	R8,CNVIRD(R13)	00024001
				430=*		INTEGER TO REAL CONVERSION	00025001
				431=*		INTEGER NUMBER IN R14	00026001
				432=*		RETURN WITH REAL NO IN FPR0	00027001
				433=*			00028001
				434=*	ALGOL	ENTIER FUNCTION	00029001
				435=*	BAL	R8,ENTIER(R13)	00030001
				436=*		REAL NUMBER IN FPR0	00031001
				437=*		RETURN WITH INTEGER IN R14	00032001
				438=	INTEGER TO REAL CONVERSION		00033001
		R:D 00000		439=	USING	FSAREA,R13	00034001
		00120		440=CNVIR	EQU	*	00035001
		00120		441=	EQU	*-FSAREA	00036001
000120	57E0 D1B4		001B4	442=	X	R14,CNVNST1+4	00037001
000124	50E0 D194		00194	443=	ST	R14,CNVBUF1+4	00038001
000128	6800 D190		00190	444=	LD	FPR0,CNVBUF1	00039001
00012C	6800 D1B0		001B0	445=	SD	FPR0,CNVNST1	00040001
		00130		446=	EQU	*	00041001
000130	6000 D198		00198	447=	STD	FPR0,CNVBUF2	00042001
000134	D202 D199	D1B1	00199	448=	MVC	CNVBUF2+1(3),CNVNST1+1	00043001
00013A	6A00 D198		00198	449=	AD	FPR0,CNVBUF2	00044001
00013E	07F8			450=	BR	R8	00045001
				451=*			00046001
				452=*		REAL TO INTEGER CONVERSION	00047001
				453=*		* FOR LONG PRECISION, THESE	00048001
				454=*		* ARE REPLACED AT EXECUTION	00049001
				455=*		* TIME BY THE INSTRUCTIONS	00050001
				456=*		* AT CNVINSTD	00051001
		00140		457=	EQU	*-FSAREA	00052001
000140	7000 D1A0		001A0	458=	STE	FPR0,CNVBUF3	00053001
000144	6800 D1A0		001A0	459=	LD	FPR0,CNVBUF3	00054001
000148	47F0 D158		00158	460=	B	ENTIER1	00055001
				461=			00056001
		0014C		462=*			00057001
00014C	7000 D1A0		001A0	463=	EQU	*-FSAREA	00058001
000150	6800 D1A0		001A0	464=	STE	FPR0,CNVBUF3	00059001
				465=	LD	FPR0,CNVBUF3	00060001
000154	6A00 D1B8		001B8	466=	B	ENTIER1	00061001
000158	6000 D1A8		001A8	467=			00062001
00015C	7900 D1C8		001C8	468=	EQU	*-FSAREA	00063001
000160	47BD 026C		0026C	469=	STD	FPR0,CNVBUF4	00064001
000164	6E00 D1B0		001B0	470=	CE	FPR0,CNVNST3	00065001
000168	4720 D176		00176	471=	BNL	ERROR40(R13)	00066001
00016C	D507 D1A8	D1C0	001A8	472=	AW	FPR0,CNVNST1	00067001
000172	472D 026C		0026C	473=	BP	LABEL1	00068001
000176	6000 D198		00198	474=	CLC	CNVBUF4(8),CNVNST4	00069001
00017A	58E0 D19C		0019C	475=	BH	ERROR40(R13)	00070001
00017E	57E0 D1B4		001B4	476=	STD	FPR0,CNVBUF2	00071001
000182	6800 D1B0		001B0	477=	L	R14,CNVBUF2+4	00072001
000186	6900 D1A8		001A8	478=	X	R14,CNVNST1+4	00073001
00018A	07D8			479=	SD	FPR0,CNVNST1	00074001
00018C	06E8			480=	CD	FPR0,CNVBUF4	00075001
				481=	BNHR	R8	
				482=	BCTR	R14,R8	
				483=*			
00018E	0000			484=	DC	0D'0'	00076001
000190				485=	DC	X'4E00000000000000'	00077001
000190	4E00000000000000			486=			

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000198	0000000000000000			481=CNVBUF2	DC	D'0'	00076001
0001A0	0000000000000000			482=CNVBUF3	DC	X'0000000000000000'	00077001
0001A8	0000000000000000			483=CNVBUF4	DC	D'0'	00078001
0001B0	4E00000800000000			484=CNVCNST1	DC	X'4E00000800000000'	00079001
0001B8	4080000000000000			485=CNVCNST2	DC	X'4080000000000000'	00080001
0001C0	C880000000000000			486=CNVCNST4	DC	X'C880000000000000'	00081001
0001C8	48800000			487=CNVCNST3	DC	X'48800000'	00082001
				488=*			00083001
0001CC				489=	DC	0F'0'	00084001
				490=*			00085001
				491=*		END OF SYMLIB PART OF FIXED STORAGE AREA	00086001
				492=*			00087001
				493 *			00272001
0001CC		001CC	000AC	494	ORG	FSAREA+ADSTAB	00273001
0000AC	00000000			495	DC	A(IHIDSTAB)	00274001
				496 *			00275001
				497		*****	00276001
				498 *			00277001
				499 *		INSTRUCTIONS/DATA INSERTED INTO THE FSA AT BRLIST	00278001
				500 *			00279001
				501		*****	00280001
				502 *			00281001
0000B0		000B0	000D4	503	ORG	BRLIST	00282001
	R:D	00000		504	USING	IHIFSARA,R13	00283001
				505 *			00284001
0000D4	47F0 D36C		0036C	506	B	CAP1A CAP1	00285001
0000D8	47F0 D3B6		003B6	507	B	CAP2A CAP2	00286001
0000DC	47F0 D3E0		003E0	508	B	PROLP PROLOGP	00287001
0000E0	47F0 D3E8		003E8	509	B	PROL PROLOG	00288001
0000E4	47F0 D828		00828	510	B	RETPROGA RETPROG	00289001
0000E8	47F0 D85C		0085C	511	B	EPILP EPILOGP	00290001
0000EC	47F0 D874		00874	512	B	EPILB EPILOGB	00291001
0000F0	47F0 D8A0		008A0	513	B	EPIL3 EPILPR3	00292001
0000F4	47F0 DB4A		00B4A	514	B	CSWE1A CSWE1	00293001
0000F8	47F0 DB9E		00B9E	515	B	CSWE2A CSWE2	00294001
0000FC	47F0 DBC6		00BC6	516	B	LOADPPA LOADPP	00295001
				517 *			00296001
				518 *		TRACE	00297001
				519 *			00298001
000100	D201 D0C0 F000 000C0 00000		00000	520	MVC	SCRCS(2,R13),0(R15) INSERT SEMICOLON NUMBER	00299001
000106	47FF 0002		00002	521	B	2(R15) MODIFIED TO NOP IF TRACE	00300001
00010A	47F0 DC44		00C44	522	B	TRACEA	00301001
00010E	47F0 D2D2		002D2	523	B	TERM TERMNTE	00302001
000112	070F			524	NOPR	R15 BCR	00303001
000114	47F0 D344		00344	525	B	GETMAIN GETMSTO	00304001
000118	47F0 D60C		0060C	526	B	VALUCAL VALUCALL	00305001
				527 *			00306001
				528 *		COMMON I/O ROUTINES IHIIOR @ IORLST	00307001
				529 *			00308001
00011C	0000DD8			530	DC	A(ADRLST)	00309001
				531 *			00310001
				532		*****	00311001
				533 *			00312001
				534 *		EXITS FOR EXECUTION ERRORS	00313001
				535 *			00314001
				536		*****	00315001
				537 *			00316001
				538 *			00317001
				539 *		ENTRY POINTS FOR ALL TYPES OF EXECUTION ERRORS	00318001
				540 *			00319001
				541 *		STORE THE ERROR NUMBER AND LINK TO THE ERROR	00320001
				542 *		ROUTINE IHIFSAER	00321001
				543 *		THE NUMBER OF EACH ERROR IS DETERMINED BY ITS POSITION	00322001
				544 *		IN THE BRANCH LIST	00323001
				545 *			00324001
				546 *		CALLING SEQUENCE -	00325001
				547 *	BC	ERRORCONDITION, FSAERR+4*ERRORNUMBER(R13)	00326001
				548 *			00327001
000120		00120	001CC	549	ORG	FSAERR+FSAREA	00328001
				550 *			00329001
0001CC	4510 D27C		0027C	551	IHIFSAER	BAL R1, FSAERRL 0	00330001
0001D0	4510 D27C		0027C	552	BAL	R1, FSAERRL 1	00331001
0001D4	4510 D27C		0027C	553	BAL	R1, FSAERRL 2	00332001
0001D8	4510 D27C		0027C	554	BAL	R1, FSAERRL 3	00333001
0001DC	4510 D27C		0027C	555	BAL	R1, FSAERRL 4	00334001
0001E0	4510 D27C		0027C	556	BAL	R1, FSAERRL 5	00335001
0001E4	4510 D27C		0027C	557	BAL	R1, FSAERRL 6	00336001
0001E8	4510 D27C		0027C	558	BAL	R1, FSAERRL 7	00337001
0001EC	4510 D27C		0027C	559	BAL	R1, FSAERRL 8	00338001
0001F0	4510 D27C		0027C	560	BAL	R1, FSAERRL 9	00339001
0001F4	4510 D27C		0027C	561	BAL	R1, FSAERRL 10	00340001
0001F8	4510 D27C		0027C	562	BAL	R1, FSAERRL 11	00341001
0001FC	4510 D27C		0027C	563	BAL	R1, FSAERRL 12	00342001
000200	4510 D27C		0027C	564	BAL	R1, FSAERRL 13	00343001
000204	4510 D27C		0027C	565	BAL	R1, FSAERRL 14	00344001
000208	4510 D27C		0027C	566	BAL	R1, FSAERRL 15	00345001
00020C	4510 D27C		0027C	567	BAL	R1, FSAERRL 16	00346001
000210	4510 D27C		0027C	568	BAL	R1, FSAERRL 17	00347001
		00214		569	NOMAIN	EQU *-FSAREA	00348001
000214	4510 D27C		0027C	570	BAL	R1, FSAERRL 18	00349001
000218	4510 D27C		0027C	571	BAL	R1, FSAERRL 19	00350001
		0021C		572	ERROR20	EQU *	00351001
		0021C		573	OERR20	EQU *-FSAREA	00352001
		0021C		574	PARERR	EQU *-FSAREA	00353001
00021C	4510 D27C		0027C	575	BAL	R1, FSAERRL 20	00354001
000220	4510 D27C		0027C	576	ERROR21	BAL R1, FSAERRL 21	00355001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17	13.21
000224	4510 D27C		0027C	577	BAL	R1, FSAERRL	22		00356001
000228	4510 D27C		0027C	578	BAL	R1, FSAERRL	23		00357001
00022C	4510 D27C		0027C	579	BAL	R1, FSAERRL	24		00358001
000230	4510 D27C		0027C	580	BAL	R1, FSAERRL	25		00359001
000234	4510 D27C		0027C	581	BAL	R1, FSAERRL	26		00360001
000238	4510 D27C		0027C	582	ERROR27	BAL R1, FSAERRL	27		00361001
00023C	4510 D27C		0027C	583	ERROR28	BAL R1, FSAERRL	28	0C8 FROM SPIE	00362001
000240	4510 D27C		0027C	584	ERROR29	BAL R1, FSAERRL	29	0CC FROM SPIE	00363001
000244	4510 D27C		0027C	585	ERROR30	BAL R1, FSAERRL	30	0C9 FROM SPIE	00364001
000248	4510 D27C		0027C	586	ERROR31	BAL R1, FSAERRL	31		00365001
00024C	4510 D27C		0027C	587	ERROR32	BAL R1, FSAERRL	32		00366001
000250	4510 D27C		0027C	588	ERROR33	BAL R1, FSAERRL	33	0CX FROM SPIE	00367001
		00254		589	ERROR34	EQU *			00368001
		00254		590	SWMERR	EQU *-FSAREA			00369001
000254	4510 D27C		0027C	591	BAL	R1, FSAERRL	34		00370001
000258	4510 D27C		0027C	592	ERROR35	BAL R1, FSAERRL	35		00371001
		0025C		593	ERROR36	EQU *			00372001
		0025C		594	RASOVERF	EQU *-FSAREA			00373001
00025C	4510 D27C		0027C	595	BAL	R1, FSAERRL	36		00374001
000260	4510 D27C		0027C	596	BAL	R1, FSAERRL	37		00375001
000264	4510 D27C		0027C	597	BAL	R1, FSAERRL	38		00376001
000268	4510 D27C		0027C	598	BAL	R1, FSAERRL	39		00377001
00026C	4510 D27C		0027C	599	BAL	R1, FSAERRL	40		00378001
		00270		600	DDERROR	EQU *-FSAREA			00379001
000270	4510 D27C		0027C	601	BAL	R1, FSAERRL	41		00380001
		00274		602	INVOP	EQU *-FSAREA			00381001
000274	4510 D27C		0027C	603	BAL	R1, FSAERRL	42		00382001
000278	4510 D27C		0027C	604	BAL	R1, FSAERRL	43		00383001
				605	*				00384001
				606	*	LINK TO ERROR ROUTINE IHFSAERR			00385001
				607	*				00386001
00027C	4110 1000		00000	608	FSAERRL	LA R1,0(,R1)	ZERO HIORDER BYTE		00387001
000280	5B10 DE40		00E40	609	S	R1,=A(IHIFSAR+4)	ERRORNUMBER*4 IN R1		00388001
000284	421D 00C3		000C3	610	STC	R1, FSAERCOD(R13)	SAVE ERROR CODE		00389001
000288	9108 D0C2		000C2	611	TM	OPTSW(R13), ERROR	TO PREVENT ENTERING		00390001
00028C	4710 D2CA		002CA	612	BO	TERMAA	ERROR ROUTINE		00391001
000290	9608 D0C2		000C2	613	OI	OPTSW(R13), ERROR	MORE THAN ONCE		00392001
				614	*				00393001
				615	CALL	IIHERROR,			X00394001
						(FRDSA, SPDAP, IIHIIOROP, IIHIIORCP, IIHIIORN)			00395001
000294				616+	CNOP	0,4			01-CALL
000294	47F0 D29C		0029C	617+	B	*+8			01-CALL
000298	00000000			618+IHB0001B	DC	V(IIHERROR)	BRANCH AROUND VCON		01-CALL
00029C				619+	CNOP	0,4	ENTRY POINT ADDRESS		02-IHBOP
00029C	4510 D2B4		002B4	620+	BAL	1,IHB0002A	LOAD LIST ADDR IN REG1		02-IHBOP
		002A0		621+IHB0002	EQU *				02-IHBOP
0002A0	00000874			622+	DC	A(FRDSA)	PROB.PROG.PARAMETER		02-IHBOP
0002A4	00000B44			623+	DC	A(SPDAP)	PROB.PROG.PARAMETER		02-IHBOP
0002A8	00000000			624+	DC	A(IIHIIOROP)	PROB.PROG.PARAMETER		02-IHBOP
0002AC	00000000			625+	DC	A(IIHIIORCP)	PROB.PROG.PARAMETER		02-IHBOP
0002B0	00			626+	DC	B'00000000'	SET VL SWITCH BIT		02-IHBOP
0002B1	00000000			627+	DC	AL3(IIHIIORN)	PROB. PROG. PARAMETER		02-IHBOP
		002B4		628+IHB0002A	EQU *				02-IHBOP
0002B4	58F0 D298		00298	629+	L	15, IHB0001B	LOAD 15 WITH ENTRY ADR		01-CALL
0002B8	05EF			630+	BALR	14,15	BRANCH TO ENTRY POINT		01-CALL
				631	*				00396001
		R:7	00E70	632	USING	IHIFSARB, R7			00397001
				633	*				00398001
				634	*	ABNORMAL TERMINATION			00399001
				635	*				00400001
0002BA	5870 DE44		00E44	636	TERMA	L R7,=A(IHIFSARB)			00401001
0002BE	9110 D0C2		000C2	637	TM	OPTSW(R13), TERMSW			00402001
0002C2	4710 74F2		01362	638	BO	ALGTRMAA	IF ERROR IN TERM ROUTINE		00403001
0002C6	47F0 72A8		01118	639	B	ALGTRMA			00404001
				640	*				00405001
				641	*	VERY ABNORMAL TERMINATION			00406001
				642	*				00407001
0002CA	5870 DE44		00E44	643	TERMAA	L R7,=A(IHIFSARB)			00408001
0002CE	47F0 74F2		01362	644	B	ALGTRMAA			00409001
				645	*				00410001
				646	*	NORMAL TERMINATION			00411001
				647	*				00412001
0002D2	5870 DE44		00E44	648	TERMN	L R7,=A(IHIFSARB)			00413001
0002D6	47F0 72B0		01120	649	B	ALGTRMN			00414001
				650	*				00415001
				651	DROP	R7			00416001
0002DA		002DA	002DA	652	ORG				00417001
				653	*				00418001
				654	*****				00419001
				655	*				00420001
				656	*	INSTRUCTIONS FOR SHORT OR LONG FLOATING POINT PRECISION			00421001
				657	*				00422001
				658	*****				00423001
				659	*				00424001
				660	*	THE FOLLOWING INSTRUCTIONS ARE MODIFIED BY THE			00425001
				661	*	INITIALIZATION ROUTINE FOR SHORT OR LONG PRECISION AS			00426001
				662	*	REQUIRED			00427001
				663	*				00428001
		002DA		664	FPIINST	EQU *			00429001
				665	*		USED BY VALUCALL		00430001
0002DA	7801 0000		00000	666	VALLD	LE 0,0(R1)			00431001
0002DE	7002 0000		00000	667	VALST	STE 0,0(R2)			00432001
				668	*		USED BY SPDECL		00433001
0002E2	7802 0000		00000	669	LINSTR	LE 0,0(R2)			00434001
0002E6	700D 0090		00090	670	STINSTR	STE 0,FACTVALST(R13)			00435001
0002EA	3200			671	LTRINSTR	LTER 0,0			00436001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0002EC	0700			672	NOPR	0	00437001
		002EE		673	FPINSTE	EQU *	00438001
0002EE	3000			674	LPRINSTR	LPER 0,0	00439001
				675	*		00440001
0002F0	000002DA00000004			676	FPINSTAD	DC A(FPINST,4,FPINSTE)	00441001
				677	*		00442001
				678	*	ONE OF THE FOLLOWING SETS OF INSTRUCTIONS IS INSERTED	00443001
				679	*	INTO THE CONVERT ROUTINE BY THE INITIALIZATION ROUTINE	00444001
				680	*	IN ORDER TO SET UP FOR LONG OR SHORT PRECISION AS	00445001
				681	*	REQUIRED	00446001
				682	*		00447001
				683	*	SHORT PRECISION	00448001
				684	*		00449001
0002FC	6000 D198		00198	685	CNVINSTE	STD FPR0,CNVBUF2	00450001
000300	D202 D199 D1B1	00199	001B1	686	MVC	CNVBUF2+1(3),CNVCNST1+1	00451001
000306	6A00 D198		00198	687	AD	FPR0,CNVBUF2	00452001
00030A	07F8			688	BR	R8	00453001
				689	*		00454001
00030C	7000 D1A0		001A0	690	STE	FPR0,CNVBUF3	00455001
000310	6800 D1A0		001A0	691	LD	FPR0,CNVBUF3	00456001
000314	47F0 D158		00158	692	B	ENTIER1	00457001
				693	*		00458001
000318	7000 D1A0		001A0	694	STE	FPR0,CNVBUF3	00459001
00031C	6800 D1A0		001A0	695	LD	FPR0,CNVBUF3	00460001
				696	*		00461001
				697	*	LONG PRECISION	00462001
				698	*		00463001
000320	07F8			699	CNVINSTD	BR R8	00464001
				700	*		00465001
000322	FFFFFFFFFFFFFFFF			701	DC	14X'FF'	00466001
000330	47F0 D158		00158	702	B	ENTIER1	00467001
				703	*		00468001
000334	FFFFFFFFFFFFFFFF			704	DC	8X'FF'	00469001
00033C	6A00 D1B8		001B8	705	AD	FPR0,CNVCNST2	00470001
000340	47F0 D158		00158	706	B	ENTIER1	00471001
				707	*		00472001
		00024		708	CNVINSTL	EQU *-CNVINSTD	00473001
				709	*		00474001
				710	*	*****	00475001
				711	*		00476001
				712	*	GETMAIN ROUTINE	00477001
				713	*		00478001
				714	*	*****	00479001
				715	*		00480001
				716	*	ISSUE A CONDITIONAL GETMAIN IN RESPONSE TO A REQUEST BY	00481001
				717	*	THE OBJECT MODULE FOR STORAGE FOR AN ARRAY. IF STORAGE	00482001
				718	*	IS NOT AVAILABLE, AN ERROR EXIT IS TAKEN	00483001
				719	*		00484001
				720	*	CALLING SEQUENCE - (ENTRY VIA BRLIST)	00485001
				721	*		00486001
				722	BAL	R8,GETMSTO(R13) LENGTH OF AREA IN R0	00487001
				723	---	RETURN WITH ADDR IN R1	00488001
				724	*		00489001
000344	1820			725	GETMAIN	LR R2,R0 LENGTH VALUE	00490001
				726	*		00491001
				727	GETMAIN	EC, LV=(R2),A=STORAGE	00492001
				728+	OS/V52	RELEASE 4 VERSION -- 10/21/75	01-GETMA
000346	0700			729+	CNOP	0,4	01-GETMA
000348	4510 D356		00356	730+	BAL	1,*+14 BRANCH AROUND LIST	01-GETMA
00034C	00000000			731+	DC	A(0) LENGTH	01-GETMA
000350	00000368			732+	DC	A(STORAGE) ADDR. OF ADDR. LIST	01-GETMA
000354	20			733+	DC	BL1'00100000' MODE AND OPTION FLAGS	01-GETMA
000355	00			734+	DC	AL1(0) SUBPOOL VALUE	01-GETMA
000356	5020 1000		00000	735+	ST	R2,0(0,1) STORE LENGTH INTO LIST	01-GETMA
00035A	0A04			736+	SVC	4 ISSUE GETMAIN SVC	01-GETMA
				737	*		00493001
00035C	12FF			738	LTR	R15,R15	00494001
00035E	477D 0214		00214	739	BNZ	NOMAIN(R13)	00495001
000362	5810 D368		00368	740	L	R1,STORAGE	00496001
000366	07F8			741	BR	R8 RETURN TO CALLING PROG	00497001
				742	*		00498001
000368	00000000			743	STORAGE	DC A(0) ADDR OF THE AREA	00499001
				744	*		00500001
				745	*	*****	00501001
				746	*		00502001
				747	*	CALL ACTUAL PARAMETER ROUTINE	00503001
				748	*		00504001
				749	*	*****	00505001
				750	*		00506001
				751	*		00507001
				752	*	THIS ROUTINE IS AN INTERMEDIATE LINK BETWEEN A PROCEDURE	00508001
				753	*	AND THE THUNK FOR AN ACTUAL PARAMETER TO THE PROCEDURE.	00509001
				754	*	IT SEARCHES THE DSA CHAIN FOR THE DSA OF THE PROCEDURE	00510001
				755	*	DECLARATION. THEN IT LOADS THE THUNK ADDR FROM THIS	00511001
				756	*	DSA, LOADS CDSA WITH THE DSA ADDR OF THE ENCLOSING	00512001
				757	*	BLOCK AND BRANCHES TO THE THUNK	00513001
				758	*		00514001
				759	*	CALLING SEQUENCE - (ENTRY VIA BRLIST)	00515001
				760	*		00516001
				761	BAL	R15,CAP1(R13)	00517001
				762	DC	H'PBN1' PBN OF PROCEDURE	00518001
				763	DS	H	00519001
				764	L	R8,DISPL(CDSA) LOAD ADDR OF THUNK	00520001
				765	---	RETURN FROM THUNK VIA CAP2	00521001
				766	*	WITH PARAM ADDR IN R8	00522001
				767	*		00523001



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		0036C		768	CAP1A	EQU *	00524001
00036C	58ED 00C8	000C8		769	CAPA	L R14,RASPT(R13)	00525001
000370	50F0 E00C	0000C		770		ST R15,12(,R14)	00526001
000374	4810 F000	00000		771		LH R1,0(,R15)	00527001
000378	4111 B000	00000		772		LA R1,0(R1,PBT)	00528001
00037C	41E0 E008	00008		773	CAP1I	LA R14,8(,R14)	00529001
000380	59ED 00D0	000D0		774		C R14,RASPB(R13)	00530001
000384	47BD 025C	0025C		775		BNL RASOVERF(R13)	00531001
000388	50A0 E000	00000		776		ST CDSA,0(,R14)	00532001
00038C	4AB0 A008	00008		777		AH PBT,8(,CDSA)	00533001
000390	5820 A000	00000		778		L R2,0(,CDSA)	00534001
000394	5020 B000	00000		779		ST R2,0(,PBT)	00535001
000398	191B			780		CR R1,PBT	00536001
00039A	4400 F004	00004		781		EX 0,4(,R15)	00537001
00039E	58A0 A004	00004		782		L CDSA,4(,CDSA)	00538001
0003A2	98BC A010	00010		783		LM PBT,LAT,16(CDSA)	00539001
0003A6	50ED 00C8	000C8		784		ST R14,RASPT(R13)	00540001
0003AA	0788			785		BZR R8	00541001
				786	*		00542001
0003AC	1B22			787		SR R2,R2	00543001
0003AE	5020 E00C	0000C		788		ST R2,12(,R14)	00544001
0003B2	47F0 D37C	0037C		789		B CAP1I	00545001
				790	*		00546001
				791	*		00547001
				792	*	HANDLE THE TRANSFER FROM THE THUNK BACK TO THE PROCEDURE	00548001
				793	*		00549001
				794	*	RELOAD CDSA WITH THE ADDR OF THE DSA THAT WAS ACTIVE	00550001
				795	*	WHEN CAP1 WAS ENTERED	00551001
				796	*		00552001
				797	*	CALLING SEQUENCE - (ENTRY VIA BRLIST)	00553001
				798	*	B CAP2(R13)	00554001
		003B6		799	CAP2A	EQU *	00555001
		003B6		800	CAPB	EQU *	00556001
0003B6	58ED 00C8	000C8		801		L R14,RASPT(R13)	00557001
0003BA	58A0 E000	00000		802	CAP13	L CDSA,0(,R14)	00558001
0003BE	98BC A010	00010		803		LM PBT,LAT,16(CDSA)	00559001
0003C2	58FE 0004	00004		804		L R15,4(R14)	00560001
0003C6	4BED 00AA	000AA		805		SH R14,EIGHT(R13)	00561001
0003CA	481A 0008	00008		806		LH R1,8(CDSA)	00562001
0003CE	50A1 B000	00000		807		ST CDSA,0(R1,PBT)	00563001
0003D2	12FF			808		LTR R15,R15	00564001
0003D4	4780 D3BA	003BA		809		BZ CAP13	00565001
0003D8	50ED 00C8	000C8		810	CAP14	ST R14,RASPT(R13)	00566001
0003DC	47F0 F008	00008		811		B 8(,R15)	00567001
				812	*		00568001
				813	*	*****	00569001
				814	*		00570001
				815	*	PROLOGUE PROGRAM	00571001
				816	*		00572001
				817	*	*****	00573001
				818	*		00574001
				819	*	THIS ROUTINE IS EXECUTED WHENEVER A BLOCK OR PROCEDURE	00575001
				820	*	IS TO BE ENTERED	00576001
				821	*		00577001
				822	*	IT CREATES AND INITIALIZES A NEW DSA. FOR A PROCEDURE	00578001
				823	*	WITH PARAMETERS IT MOVES THE PARAMETER LIST TO THE DSA	00579001
				824	*	AND CHECKS IT AGAINST THE FORMAL PARAMETER LIST IN THE	00580001
				825	*	PROCEDURE DECLARATION. THEN IT ENTERS THE BLOCK OR	00581001
				826	*	PROCEDURE	00582001
				827	*	THE ENTRY POINT PROLOGP IS USED ONLY WHEN THE PROCEDURE	00583001
				828	*	IS CALLED VIA AN ACTUAL PARAMETER TO ANOTHER	00584001
				829	*	PROCEDURE	00585001
				830	*		00586001
				831	*	CALLING SEQUENCE (ENTRY VIA BRLIST)	00587001
				832	*	BAL R15,PROLOG(R13)	00588001
				833	*	MVI PROLPBN(R13),PBN	00589001
				834	*		00590001
				835	*	DC A(THUNK1)	00591001
				836	*	DC H'CH'	00592001
				837	*	DC H'N'	00593001
				838	*	.	00594001
				839	*	.	00595001
				840	*	.	00596001
				841	*	DC A(THUNKN)	00597001
				842	*	DC H'CH'	00598001
				843	*	DC H'0'	00599001
				844	*		00600001
0003E0	9200 D0A8	000A8		845	PROLP	MVI PROLPBN-1(R13),X'00'	00601001
				846	*		00602001
				847	*	SET OFF SW SET BY GENERATE PROG TO DETECT ERROR	00603001
				848	*	SEE BELOW	00604001
				849	*		00605001
0003E4	98BC D0A0	000A0		850		LM PBT,LAT,PROLREG(R13)	00606001
				851	*		00607001
0003E8	483D 00A8	000A8		852	PROL	LH R3,PROLPBN-1(R13)	00608001
0003EC	8930 0003	00003		853		SLL R3,3	00609001
0003F0	1223			854		LTR R2,R3	00610001
0003F2	4780 D924	00924		855		BZ SPDECL(,R13)	00611001
0003F6	474D 0220	00220		856		BM OERR21(R13)	00612001
				857	*		00613001
				858	*	PARAMETER IS PARAMETERLESS WHILE FORMAL PROCEDURE IS	00614001
				859	*	CALLED WITH PARAMETERS	00615001
				860	*	PROLPBN-1 WAS SET TO X'FF' BY GENERATED PROG BEFORE CAP1	00616001
				861	*	WAS CALLED	00617001
				862	*		00618001
0003FA	1A3B			863		AR R3,PBT	00619001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0003FC	910C 3006	00006		864	TM	6(R3),BETABM	PROCEDURE CALLED ?
000400	4780 D414		00414	865	BZ	PROLOG1	NO
000404	5980 D098		00098	866	C	R8,ASTLOC(,R13)	COMP CONT OF ADDR WITH ADDR OF
				867	*		FUNCTION VALUE STORAGE
000408	4780 D220		00220	868	BE	OERR21(,R13)	EQUAL, BRANCH
00040C	9110 3006	00006		869	TM	6(R3),CODEPRM	CODE PROCEDURE CALLED ?
000410	4710 D5EA		005EA	870	BO	PROLOG2	YES.
000414	4800 3004		00004	871	PROLOG1	R0,4(,R3)	LENGTH OF DSA TO REG 0
000418	184F			872	LR	R4,R15	SAVE R15 DURING GETMAIN
				873	*		
				874		GETMAIN R,LV=(0)	GETMAIN FOR DSA
				875+	*	OS/VS2 RELEASE 4 VERSION -- 10/21/75	01-GETMA
00041A	4510 D41E		0041E	876+	BAL	1,*+4	INDICATE GETMAIN
00041E	0A0A			877+	SVC	10	ISSUE GETMAIN SVC
				878	*		
000420	18F4			879	LR	R15,R4	
000422	5802 B000		00000	880	L	R0,0(R2,PBT)	LOAD POINTER OF LAST GENERATION
000426	5000 1000		00000	881	ST	R0,0(,R1)	STORE IT IN DSA
00042A	50A0 1004		00004	882	ST	CDSA,4(,R1)	STORE POINTER OF EMBRACING PB
00042E	4020 1008		00008	883	STH	R2,8(,R1)	STORE PBT DISPLACEMENT
000432	9200 100A	0000A		884	MVI	10(R1),0	ZEROS TO VALUE ARRAY AND
000436	D204 100B	100A 0000B	0000A	885	MVC	11(5,R1),10(R1)	ARRAY POINTERS
00043C	5012 B000		00000	886	ST	R1,0(R2,PBT)	STORE CURR DSA POINTER IN PBT
000440	18A1			887	LR	CDSA,R1	SET CDSA POINTER
000442	90BC A010		00010	888	STM	PBT,LAT,16(CDSA)	
000446	58ED 00C8		000C8	889	L	R14,RASPT(R13)	RAS-POINTER TOP
00044A	41EE 0008		00008	890	LA	R14,8(R14)	RESERVE ONE ENTRY
00044E	59ED 00D0		000D0	891	C	R14,RASPB(R13)	COMPARE WITH RAS-POINTER BOTTOM
000452	47BD 025C		0025C	892	BNL	RASOVERF(R13)	STACK OVERFLOW
000456	50A0 E000		00000	893	ST	CDSA,0(,R14)	
00045A	92FF E000	00000		894	MVI	0(R14),X'FF'	
00045E	50ED 00C8		000C8	895	ST	R14,RASPT(R13)	SAVE POINTER
000462	910C 3006	00006		896	TM	6(R3),BETABM	PROCEDURE CALLED ?
000466	078F			897	BZR	R15	NO, USUAL BLOCK RETURN, EXIT 1
000468	9500 3007	00007		898	CLI	7(R3),0	ANY FORMAL PARAMETERS ?
00046C	4780 D5E4		005E4	899	BE	F4	ZERO, BRANCH
000470	D500 3007	F007 00007	00007	900	CLC	7(1,R3),7(R15)	COMP NO OF FORM AND ACT PARAM
000476	4770 D220		00220	901	BNE	OERR21(,R13)	→, BRANCH
00047A	1B22			902	SR	R2,R2	
00047C	4320 3007		00007	903	IC	R2,7(,R3)	FETCH NUMBER OF PARAMETERS
000480	1842			904	LR	R4,R2	SAVE NUMBER IN R4
000482	8920 0003		00003	905	SLL	R2,3	CALCULATE LENGTH OF PARAMETER
000486	0620			906	BCR	R2,0	ENTRY-1
000488	411A 0018		00018	907	LA	R1,24(CDSA)	START OF PARAM IF PROC
00048C	9104 3006	00006		908	TM	6(R3),PIMASK	FUNCTION PROCEDURE CALLED
000490	4780 D4A8		004A8	909	BZ	PROLOG3	YES
000494	4420 D49C		0049C	910	EX	R2,PTMOVE	
000498	47F0 D4B0		004B0	911	B	LOOP	
				912	*		
00049C	D200 A018	F000 00018	00000	913	PIMOVE	MVC 24(1,CDSA),0(R15)	MOVE PROCEDURE PARAMETERS
0004A2	D200 A020	F000 00020	00000	914	PHIMOVE	MVC 32(1,CDSA),0(R15)	MOVE FUNCTION PARAMETERS
0004A8	4420 D4A2		004A2	915	PROLOG3	EX R2,PHIMOVE	
0004AC	4111 0008		00008	916	LA	R1,8(R1)	START OF PARAM. IF TYPE
0004B0	9101 8000	00000		917	LOOP	TM 0(R8),X'01'	FORM PAR 'STRING' ?
0004B4	4710 D4FC		004FC	918	BO	STRTST	YES, GOTO STRINGTEST
0004B8	9500 8001	00001		919	CLI	1(R8),X'D0'	FORM PAR 'PROC' WITHOUT TYP ?
0004BC	4780 D508		00508	920	BE	PROTST	YES, GOTO PROCEDURE TEST
0004C0	951C 8001	00001		921	CLI	1(R8),X'1C'	FORM PAR 'SWITCH' ?
0004C4	4780 D514		00514	922	BE	SWTTST	YES, GOTO SWITCH TEST
0004C8	9108 8001	00001		923	TM	1(R8),X'08'	FORM PAR 'LABEL' ?
0004CC	4710 D51C		0051C	924	BO	LBLTST	YES, GOTO LABEL TEST
0004D0	9104 8001	00001		925	TM	1(R8),X'04'	FORM PAR 'ARRAY' ?
0004D4	4710 D530		00530	926	BO	ARRTST	YES, GOTO ARRAY TEST
0004D8	91C0 8001	00001		927	TM	1(R8),X'C0'	FORM PAR A TYP PROCEDURE ?
0004DC	4710 D53C		0053C	928	BO	TPRTST	YES, GOTO TYP PROCEDURE TEST
0004E0	9104 F005	00005		929	TM	5(R15),X'04'	ACT PAR 'ARRAY' ?
0004E4	4710 D21C		0021C	930	BO	OERR20(,R13)	YES, ERR 20
0004E8	9103 8001	00001		931	TYPTST	TM 1(R8),X'03'	TEST TYP
0004EC	4740 D548		00548	932	BM	ARITST	IF ARITHM TYP GOTO ARITH TEST
0004F0	9103 F005	00005		933	TM	5(R15),X'03'	ACT PAR BOOL ?
0004F4	4710 D574		00574	934	BO	ASSFLAG	YES, SPECIAL ASSIGNMENT TEST
0004F8	47F0 D21C		0021C	935	B	OERR20(,R13)	NO, GOTO ERR 20
				936	*		
0004FC	9101 F004	00004		937	STRTST	TM 4(R15),X'01'	ACT PAR 'STRING' ?
000500	4710 D5D4		005D4	938	BO	EXIT	YES, TEST NEXT PAR
000504	47F0 D21C		0021C	939	B	OERR20(,R13)	NO, BRANCH TO OBJEXT TIME ERR 20
				940	*		
000508	91C0 F005	00005		941	PROTST	TM 5(R15),X'C0'	ACT PAR IS 'PROCEDURE' ?
00050C	4780 D21C		0021C	942	BZ	OERR20(,R13)	NO, ERR 20
000510	47F0 D5D4		005D4	943	B	EXIT	YES, TEST NEXT PAR
				944	*		
000514	910C F005	00005		945	SWTTST	TM 5(R15),X'0C'	ACT PAR 'SWITCH' ?
000518	47F0 D500		00500	946	B	STRTST+4	BRANCH TO STRTST+4 TO TEST CC
				947	*		
00051C	9108 F005	00005		948	LBLTST	TM 5(R15),X'08'	ACT PAR 'LABEL' ?
000520	4780 D21C		0021C	949	BZ	OERR20(,R13)	NO, ERR 20
000524	9104 F005	00005		950	TM	5(R15),X'04'	ACT PAR 'SWITCH' ?
000528	4710 D21C		0021C	951	BO	OERR20(,R13)	YES, ERR 20
00052C	47F0 D5D4		005D4	952	B	EXIT	TEST NEXT PAR
				953	*		
000530	9104 F005	00005		954	ARRTST	TM 5(R15),X'04'	ACT PAR 'ARRAY' ?
000534	4780 D21C		0021C	955	BZ	OERR20(0,R13)	NO, ERR 20
000538	47F0 D4E8		004E8	956	B	TYPTST	YES, GOTO TYP TEST
				957	*		
00053C	91C0 F005	00005		958	TPRTST	TM 5(R15),X'C0'	ACT PAR 'PROCEDURE' ?
000540	4780 D21C		0021C	959	BZ	OERR20(0,R13)	NO, ERR 20



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000544	47F0 D4E8		004E8	960	B	TYPTST	YES, GOTO TYP TEST 00713001
				961	*		00714001
000548	9103 F005	00005		962	ARITST	TM 5(R15),X'03'	ACTUAL PAR ARITHMETIC ? 00715001
00054C	47BD 021C		0021C	963	BNM	OERR20(R13)	NO 00716001
000550	9110 8001	00001		964	TM	1(R8),X'10'	FORMAL PARAMETER CALLED BY NAME? 00717001
000554	4780 D5B4		005B4	965	BZ	PARAMPR	NO 00718001
000558	9102 8001	00001		966	TM	1(R8),X'02'	FORMAL PARAMETER REAL TYPE ? 00719001
00055C	4780 D56C		0056C	967	BZ	INTTST	NO, INTEGER TYPE 00720001
000560	9102 F005	00005		968	TM	5(R15),X'02'	ACTUAL PARAMETER REAL ? 00721001
000564	47BD 021C		0021C	969	BZ	OERR20(R13)	NO, ERROR 00722001
000568	47F0 D57C		0057C	970	B	ASSFLAG2	SPECIAL ASSIGNMENT TEST 00723001
				971	*		00724001
00056C	9101 F005	00005		972	INTTST	TM 5(R15),X'01'	ACTUAL PARAMETER INTEGER ? 00725001
000570	478D 021C		0021C	973	BZ	OERR20(R13)	NO, ERROR 00726001
				974	*		00727001
				975	*	SPECIAL TEST IF ACTUAL PARAMETER IS FORMAL BY NAME AND	00728001
				976	*	THEN MOVE THE ASGNMENT FLAG FR ACT PARAMETER ENT IN DSA	00729001
				977	*	TO THE NEW PARAMETER ENT IN DSA OF BLK TO BE ENTERED	00730001
				978	*		00731001
				979	*	NOTE: THIS CODE IS EXTREMELY DEPENDENT ON CODE	00732001
				980	*	GENERATED FOR FORMAL PARAMETERS CALLED BY NAME	00733001
				981	*		00734001
000574	9110 8001	00001		982	ASSFLAG	TM 1(R8),X'10'	FORMAL PARM BY NAME ? 00735001
000578	4780 D5B4		005B4	983	BZ	PARAMPR	NO 00736001
00057C	9110 F005	00005		984	ASSFLAG2	TM 5(R15),X'10'	ACT IS TYPE CALLED BY NAME ? 00737001
000580	4780 D5B4		005B4	985	BZ	PARAMPR	00738001
000584	9120 F005	00005		986	TM	5(R15),X'20'	IF NOT GOTO SPECIAL 00739001
000588	4710 D5B4		005B4	987	BO	PARAMPR	PARAMETERLESS PR TEST 00740001
00058C	582A 0004		00004	988	L	R2,4(CDSA)	DSA OF CALLING SEQUENCE 00741001
000590	5820 2010		00010	989	L	R2,16(,R2)	PBT ADDR OF CALLING SEQ 00742001
000594	5830 1000		00000	990	L	R3,0(,R1)	ADDR OF THUNK OF ACT PARM 00743001
				991	*		WHICH IS FORMAL 00744001
000598	D200 D5B3 300B	005B3	0000B	992	MVC	ORI+5(1),11(R3)	MOVE DISPL OF PARAM FOUND 00745001
				993	*		IN THUNK CODE TO OR INST 00746001
00059E	4330 3004		00004	994	IC	R3,4(,R3)	DISPLACEMENT OF 00747001
0005A2	5430 D608		00608	995	N	R3,MASKFF	PROCEDURE IN PBT 00748001
0005A6	5833 2000		00000	996	L	R3,0(R3,R2)	ADDR OF DSA OF PROCEDURE 00749001
0005AA	4130 3004		00004	997	LA	R3,4(,R3)	ADDR CHARACTERISTIC PART 00750001
				998	*		OF PARAMETER ENTRY 00751001
0005AE	D600 1004 3000	00004	00000	999	ORI	OC 4(1,R1),0(R3)	MOVE ASGNMENT BIT FROM 00752001
				1000	*		CALLING PARAMETER ENT IN 00753001
				1001	*		DSA TO NEW DSA ENT 00754001
				1002	*		00755001
				1003	*	TEST IF ACTUAL PARAMETER IS PARAMETERLESS PROCEDURE	00756001
				1004	*		00757001
0005B4	91C0 F005	00005		1005	PARAMPR	TM 5(R15),X'C0'	ACTUAL PARAMETER PROCEDURE ? 00758001
0005B8	4780 D5D4		005D4	1006	BZ	EXIT	NO 00759001
0005BC	9130 F005	00005		1007	TM	5(R15),X'30'	00760001
0005C0	4740 D5D4		005D4	1008	BM	EXIT	00761001
0005C4	91D0 8001	00001		1009	TM	1(R8),X'D0'	FORMAL PROC CALLED BY NAME ? 00762001
0005C8	4710 D5D4		005D4	1010	BO	EXIT	YES, EXIT 00763001
0005CC	91C0 F004	00004		1011	TM	4(R15),X'C0'	PROCEDURE CALLED ? 00764001
0005D0	471D 021C		0021C	1012	BO	OERR20(R13)	00765001
0005D4	41F0 F008		00008	1013	EXIT	LA R15,8(,R15)	GET NEXT ACT PAR ADDR 00766001
0005D8	4180 8002		00002	1014	LA	R8,2(,R8)	GET NEXT FORM PAR ADDR 00767001
0005DC	4110 1008		00008	1015	LA	R1,8(,R1)	NEXT PARAMETER IN DSA 00768001
0005E0	4640 D4B0		004B0	1016	BCT	R4,LOOP	IF A NEXT PAR OCCURS GOTO LOOP 00769001
0005E4	50F0 E004		00004	1017	F4	ST R15,4(,R14)	STORE RETURN ADDR IN RAS 00770001
0005E8	07F8			1018	BR	R8	EXIT 2 00771001
				1019	*		00772001
				1020	*	PRECOMPILED PROCEDURE CALLED	00773001
				1021	*		00774001
0005EA	5810 3000		00000	1022	PROLOG2	L R1,0(,R3)	ADDR OF PRECOMP PR CONST 00775001
0005EE	98BC 1000		00000	1023	LM	PBT,LAT,0(R1)	LOAD NEW PBT AND LAT ADDRS 00776001
0005F2	D500 3007 B00F	00007	0000F	1024	CLC	7(1,R3),15(PBT)	PARAMETER DEFINITION IN CODE 00777001
				1025	*		PROCEDURE SAME AS IN LOADED 00778001
				1026	*		PRECOMPILED PROCEDURE ? 00779001
0005F8	477D 0220		00220	1027	BNE	OERR21(R13)	NO, ERROR 21 00780001
0005FC	5880 1008		00008	1028	L	R8,8(,R1)	PROCEDURE DECLAR ENTRY POINT 00781001
000600	9201 D0A9	000A9		1029	MVI	PROLPBN(R13),1	PBN OF PROCEDURE IS 1 00782001
000604	47FD 00E0		000E0	1030	B	PROLOG(R13)	CALL PRECOMPILED PROCEDURE 00783001
				1031	*		00784001
000608	000000FF			1032	MASKFF	DC X'000000FF'	MASK TO CLEAR 3 BYTES OF REG 00785001
				1033	*		00786001
				1034	*	*****	00787001
				1035	*		00788001
				1036	*	VALUE CALL ROUTINE	00789001
				1037	*		00790001
				1038	*	*****	00791001
				1039	*		00792001
				1040	*	SUBROUTINE FOR HANDLING FORMAL PARAMETERS	00793001
				1041	*		00794001
				1042	*	CALLED BY VALUE	00795001
				1043	*		00796001
				1044	*	USED FOR FORMAL PARAMETERS OF TYPE REAL, INTEGER OR	00797001
				1045	*	BOOLEAN, INCLUDING ARRAYS	00798001
				1046	*		00799001
				1047	*	CALLING SEQUENCE - (ENTRY VIA BRLIST)	00800001
				1048	*	CALL ACTUAL PARAMETER	00801001
				1049	*	BAL R15,VALUCALL(R13)	00802001
				1050	*	DC H'DISPL'	FORMAL PARAMETER DISPLACEMENT 00803001
				1051	*	DC XL2' '	CHARACTERISTIC OF PARAMETER 00804001
				1052	*	---	RETURN FROM VALUCALL 00805001
				1053	*		00806001
				1054	*	DISPL(CDSA) CONTAINS IF PARAMETER IS AN ARRAY ADDR OF	00807001
				1055	*	SMF OTHERWISE VALUE OF THE ACTUAL PARAMETER, CONVERTED	00808001

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				1056 *		IF NECESSARY	00809001
				1057 *			00810001
00060C	9200 D826	00826		1058 VALUCAL	MVI	CONVFL,0	00811001
000610	50F0 D810		00810	1059	ST	R15,BRRSAVE	00812001
000614	5080 D814		00814	1060	ST	R8,ADRSAVE	00813001
000618	4810 F000		00000	1061	LH	R1,0(,R15)	00814001
00061C	41E1 A000		00000	1062 VALUC10	LA	R14,0(R1,CDSA)	00815001
				1063 *			00816001
				1064 *		INSERT COMPONENT SIZE OF ORIGINAL	00817001
				1065 *			00818001
000620	9201 D823	00823		1066	MVI	CSIZORIG+1,X'01'	00819001
000624	9103 E005	00005		1067	TM	5(R14),X'03'	00820001
000628	4710 D668		00668	1068	BO	VALUC12	00821001
00062C	9204 D823	00823		1069	MVI	CSIZORIG+1,X'04'	00822001
000630	9101 E005	00005		1070	TM	5(R14),X'01'	00823001
000634	4710 D644		00644	1071	BO	VALUC00	00824001
000638	9120 D0C2	000C2		1072	TM	OPTSW(R13),X'20'	00825001
00063C	4710 D644		00644	1073	BO	VALUC00	00826001
000640	9208 D823	00823		1074	MVI	CSIZORIG+1,X'08'	00827001
				1075 *			00828001
000644	9102 E005	00005		1076 VALUC00	TM	5(R14),X'02'	00829001
000648	4710 D65C		0065C	1077	BO	VALUC11	00830001
				1078 *			00831001
				1079 *		ACTUAL PARAMETER INTEGER	00832001
				1080 *			00833001
00064C	9101 F003	00003		1081	TM	3(R15),X'01'	00834001
000650	4710 D668		00668	1082	BO	VALUC12	00835001
				1083 *			00836001
000654	9201 D826	00826		1084	MVI	CONVFL,X'01'	00837001
000658	47F0 D668		00668	1085	B	VALUC12	00838001
				1086 *			00839001
				1087 *		ACTUAL PARAMETER REAL	00840001
				1088 *			00841001
00065C	9102 F003	00003		1089 VALUC11	TM	3(R15),X'02'	00842001
000660	4710 D668		00668	1090	BO	VALUC12	00843001
000664	9203 D826	00826		1091	MVI	CONVFL,X'03'	00844001
000668	D200 D825	D823	00825	1092 VALUC12	MVC	CSIZCOPY+1(1),CSIZORIG+1	00845001
00066E	9104 F003	00003		1093	TM	3(R15),X'04'	00846001
000672	4710 D6AA		006AA	1094	BO	VALUC21	00847001
000676	D207 E000	8000	00000	1095 VALUC13	MVC	0(8,R14),0(R8)	00848001
00067C	181E			1096	LR	R1,R14	00849001
00067E	1821			1097	LR	R2,R1	00850001
000680	4150 F004		00004	1098	LA	R5,4(,R15)	00851001
000684	9103 D826	00826		1099 VALUC14	TM	CONVFL,X'03'	00852001
000688	0785			1100	BZR	R5	00853001
00068A	4710 D69C		0069C	1101	BO	VALUC15	00854001
				1102 *			00855001
				1103 *		CALL INTEGER REAL CONVERSION ROUTINE	00856001
				1104 *			00857001
00068E	58E0 1000		00000	1105	L	R14,0(,R1)	00858001
000692	458D 0120		00120	1106	BAL	R8,CNVIRD(R13)	00859001
000696	4400 D2DE		002DE	1107	EX	0,VALST	00860001
00069A	07F5			1108	BR	R5	00861001
				1109 *			00862001
				1110 *		CALL REAL-INTEGER CONVERSION ROUTINE	00863001
				1111 *			00864001
00069C	4400 D2DA		002DA	1112 VALUC15	EX	0,VALLD	00865001
0006A0	458D 014C		0014C	1113	BAL	R8,CNVIRDI(R13)	00866001
0006A4	50E0 2000		00000	1114	ST	R14,0(,R2)	00867001
0006A8	07F5			1115	BR	R5	00868001
				1116 *			00869001
				1117 *		HANDLE VALUE CALL OF ARRAY	00870001
				1118 *			00871001
0006AA	D203 D81C	8010	0081C	00010	1119 VALUC21	MVC	00872001
0006B0	58F0 8008		00008	1120	L	R15,8(,R8)	00873001
0006B4	58F0 8004		00004	1121	S	R15,4(,R8)	00874001
0006B8	50F0 D818		00818	1122	ST	R15,DIFFLZ	00875001
				1123 *			00876001
0006BC	9200 D827	00827		1124	MVI	SMFFL,0	00877001
				1125 *			00878001
0006C0	9120 D0C2	000C2		1126	TM	OPTSW(R13),X'20'	00879001
0006C4	4710 D70E		0070E	1127	BO	VALUC31	00880001
0006C8	9103 D826	00826		1128	TM	CONVFL,X'03'	00881001
0006CC	4780 D70E		0070E	1129	BZ	VALUC31	00882001
0006D0	D200 D827	D826	00827	1130	MVC	SMFFL(1),CONVFL	00883001
0006D6	58F0 D81C		0081C	1131	L	R15,SIZEARR	00884001
0006DA	58E0 D818		00818	1132	L	R14,DIFFLZ	00885001
0006DE	4810 D824		00824	1133	LH	R1,CSIZCOPY	00886001
0006E2	4710 D6F6		006F6	1134	BO	VALUC25	00887001
				1135 *			00888001
				1136 *		INCREMENT 'SIZE OF ARRAY', DIFF AND COMPONENT SIZE	00889001
				1137 *			00890001
0006E6	8BF0 0001		00001	1138	SLA	R15,1	00891001
0006EA	8BE0 0001		00001	1139	SLA	R14,1	00892001
0006EE	8B10 0001		00001	1140	SLA	R1,1	00893001
0006F2	47F0 D702		00702	1141	B	VALUC26	00894001
				1142 *			00895001
				1143 *		DECREMENT 'SIZE OF ARRAY', DIFF AND COMPONENT SIZE	00896001
				1144 *			00897001
0006F6	8AF0 0001		00001	1145 VALUC25	SRA	R15,1	00898001
0006FA	8AE0 0001		00001	1146	SRA	R14,1	00899001
0006FE	8A10 0001		00001	1147	SRA	R1,1	00900001
000702	50F0 D81C		0081C	1148 VALUC26	ST	R15,SIZEARR	00901001
000706	50E0 D818		00818	1149	ST	R14,DIFFLZ	00902001
00070A	4010 D824		00824	1150	STH	R1,CSIZCOPY	00903001
				1151 *			00904001

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				1152 *		EXECUTE SUBROUTINE WITH GETMAIN	00905001
				1153 *			00906001
00070E	1BFF			1154 VALUC31	SR	R15,R15	00907001
000710	43F8 0000		00000	1155	IC	R15,0(R8)	00908001
000714	41FF 0005		00005	1156	LA	R15,5(R15)	00909001
000718	8BF0 0002		00002	1157	SLA	R15,2	00910001
00071C	9508 D825	00825		1158	CLI	CSIZCOPY+1,X'08'	00911001
000720	4770 D730		00730	1159	BNE	VALUC32	00912001
000724	9101 8000		00000	1160	TM	0(R8),X'01'	00913001
000728	4710 D730		00730	1161	BO	VALUC32	00914001
00072C	41F0 F004		00004	1162	LA	R15,4(R15)	00915001
000730	42F0 D821		00821	1163 VALUC32	STC	R15,SIZESMF+1	00916001
000734	4800 D820		00820	1164	LH	0,SIZESMF	00917001
000738	5A00 D81C		0081C	1165	A	0,SIZEARR	00918001
00073C	458D 0114		00114	1166	BAL	R8,GETMSTO(R13)	00919001
				1167 *			00920001
				1168 *		COPY SMF	00921001
				1169 *			00922001
000740	5880 D814		00814	1170	L	R8,ADRSAVE	00923001
000744	D200 1000 8000 00000	00000	00000	1171 VALUC33	MVC	0(1,R1),0(R8)	00924001
				1172 *			00925001
				1173 *		INSERT FIRST FOUR WORDS INTO SMF COPY	00926001
				1174 *			00927001
00074A	D201 1002 A00A 00002 0000A	00002	0000A	1175	MVC	2(2,R1),10(CDSA)	00928001
000750	58F0 D810		00810	1176	L	R15,BRRSAVE	00929001
000754	4820 F000		00000	1177	LH	R2,0(R15)	00930001
000758	4020 A00A		0000A	1178	STH	R2,10(CDSA)	00931001
00075C	5012 A000		00000	1179	ST	R1,0(R2,CDSA)	00932001
				1180 *		TO FORMAL PARAMETER ENTRY	00933001
000760	18F1			1181	LR	R15,R1	00934001
000762	4AF0 D820		00820	1182	AH	R15,SIZESMF	00935001
000766	50F0 1008		00008	1183	ST	R15,8(R1)	00936001
00076A	5BF0 D818		00818	1184	S	R15,DIFFLZ	00937001
00076E	50F0 1004		00004	1185	ST	R15,4(R1)	00938001
000772	5AF0 D818		00818	1186	A	R15,DIFFLZ	00939001
000776	5AF0 D81C		0081C	1187	A	R15,SIZEARR	00940001
00077A	50F0 100C		0000C	1188	ST	R15,12(R1)	00941001
				1189 *			00942001
				1190 *		COPY DOUBLE OR HALF P-VALUES INTO NEW SMF	00943001
				1191 *			00944001
00077E	41F0 1010		00010	1192	LA	R15,16(R1)	00945001
000782	4120 8010		00010	1193	LA	R2,16(R8)	00946001
				1194 *			00947001
000786	58E2 0000		00000	1195 VALUC35	L	R14,0(R2)	00948001
00078A	9103 D827	00827		1196	TM	SMFFL,X'03'	00949001
00078E	4780 D79E		0079E	1197	BZ	VALUC36	00950001
000792	89E0 0001		00001	1198	SLL	R14,1	00951001
000796	4740 D79E		0079E	1199	BM	VALUC36	00952001
00079A	88E0 0002		00002	1200	SRL	R14,2	00953001
00079E	50E0 F000		00000	1201 VALUC36	ST	R14,0(R15)	00954001
0007A2	41F0 F004		00004	1202	LA	R15,4(R15)	00955001
0007A6	4120 2004		00004	1203	LA	R2,4(R2)	00956001
0007AA	59F0 1008		00008	1204	C	R15,8(R1)	00957001
0007AE	4740 D786		00786	1205	BL	VALUC35	00958001
				1206 *			00959001
				1207 *		COPY ARRAY	00960001
				1208 *			00961001
				1209 *		INITIALIZE COPYING	00962001
				1210 *			00963001
0007B2	5830 D81C		0081C	1211 VALUC41	L	R3,SIZEARR	00964001
0007B6	5820 1008		00008	1212	L	R2,8(R1)	00965001
0007BA	5810 8008		00008	1213	L	R1,8(R8)	00966001
0007BE	9103 D826	00826		1214	TM	CONVFL,X'03'	00967001
0007C2	4780 D7E2		007E2	1215	BZ	VALUC61	00968001
0007C6	4550 D684		00684	1216 VALUC51	BAL	R5,VALUC14	00969001
0007CA	4A10 D822		00822	1217	AH	R1,CSIZORIG	00970001
0007CE	4A20 D824		00824	1218	AH	R2,CSIZCOPY	00971001
0007D2	4B30 D824		00824	1219	SH	R3,CSIZCOPY	00972001
0007D6	4720 D7C6		007C6	1220	BP	VALUC51	00973001
0007DA	58F0 D810		00810	1221 VALUC52	L	R15,BRRSAVE	00974001
0007DE	47F0 F004		00004	1222	B	4(R15)	00975001
				1223 *		RETURN	00976001
0007E2	4140 00FF		000FF	1224 VALUC61	LA	R4,255	00977001
0007E6	0630			1225 VALUC61A	BCTR	R3,0	00978001
0007E8	1934			1226	CR	R3,R4	00979001
0007EA	47D0 D800	00800		1227	BNH	VALUC62	00980001
0007EE	4440 D808	00808		1228	EX	R4,VALUC63	00981001
0007F2	1B34			1229	SR	R3,R4	00982001
0007F4	4110 1100	00100		1230	LA	R1,256(R1)	00983001
0007F8	4120 2100	00100		1231	LA	R2,256(R2)	00984001
0007FC	47F0 D7E6	007E6		1232	B	VALUC61A	00985001
				1233 *		CONTINUE	00986001
000800	4430 D808	00808		1234 VALUC62	EX	R3,VALUC63	00987001
000804	47F0 D7DA	007DA		1235	B	VALUC52	00988001
				1236 *		MOVE LAST PART OF ARRAY	00989001
000808	D200 2000 1000 00000	00000	00000	1237 VALUC63	MVC	0(0,R2),0(R1)	00990001
				1238 *		ORIGINAL ARRAY TO COPY	00991001
				1239 *			00992001
				1240 *		WORK AREA	00993001
00080E	0000						
000810	00000000			1241 BRRSAVE	DC	F'0'	00994001
000814	00000000			1242 ADRSAVE	DC	F'0'	00995001
000818	00000000			1243 DIFFLZ	DC	F'0'	00996001
				1244 *		DIFFERENCE BETWEEN LOW	00997001
						AND ZERO COMPONENTS	00998001
00081C	00000000			1245 SIZEARR	DC	F'0'	00999001
000820	0000			1246 SIZESMF	DC	H'0'	00999001

Loc	Object Code	Addr1	Addr2	Stmnt	Source Statement	X390 3.1.04 2012/08/17 13.21
000822	0000			1247	CSIZORIG DC H'0'	COMPONENT SIZE, ORIGINAL 01000001
000824	0000			1248	CSIZCOPY DC H'0'	COMPONENT SIZE, COPY 01001001
000826	00			1249	CONVFL DC X'00'	CONVERSION FLAG 01002001
000827	00			1250	SMFFL DC X'00'	ARRAY SIZE FLAG 01003001
				1251	*	01004001
				1252	*****	01005001
				1253	*	01006001
				1254	RETURN PROGRAM	01007001
				1255	*	01008001
				1256	*****	01009001
				1257	*	01010001
				1258	THIS ROUTINE IS ENTERED WHEN A BRANCH IS MADE OUT OF A	01011001
				1259	BLOCK OR PROCEDURE BY MEANS OF A 'GO TO' STATEMENT	01012001
				1260	*	01013001
				1261	IT SEARCHES RAS FOR AN ENTRY POINTING TO THE DSA OF THE	01014001
				1262	TARGET BLOCK. FOR EACH BLOCK THAT IS BYPASSED, THE	01015001
				1263	FREEDSA ROUTINE IS INVOKED TO RELEASE STORAGE FOR DSA	01016001
				1264	AND ARRAYS. CALLING SEQUENCE - (ENTRY VIA BRLIST)	01017001
				1265	*	01018001
				1266	B RETPROG(R13)	01019001
				1267	*	01020001
000828	05F0			1268	RETPROGA BALR R15,0	SET RETURN REGISTER 01021001
00082A	58ED 00C8	000C8		1269	L R14,RASPT(R13)	FETCH RAS TOP POINTER 01022001
00082E	9500 E000	00000		1270	RETPR1 CLI 0(R14),RASPARMM	RAS PARAMETER ENTRY ? 01023001
000832	4770 D83E	0083E		1271	BNE PBNENTRY	NO 01024001
000836	4BE0 D0AA	000AA		1272	SH R14,EIGHT(,R13)	CLEAR PARAMETER ENTRY 01025001
00083A	47F0 D82E	0082E		1273	B RETPR1	TEST NEXT ENTRY 01026001
				1274	*	01027001
00083E	431E 0000	00000		1275	PBNENTRY IC R1,0(R14)	SAVE FLAG 01028001
000842	9200 E000	00000		1276	MVI 0(R14),0	CLEAR FLAG 01029001
000846	58A0 E000	00000		1277	L CDSA,0(,R14)	UPDATE DSA REG 01030001
00084A	5990 E000	00000		1278	C GDSA,0(,R14)	COMPARE DSA ADDR 01031001
00084E	4210 E000	00000		1279	STC R1,0(,R14)	RESTORE FLAG 01032001
000852	50ED 00C8	000C8		1280	ST R14,RASPT(R13)	SAVE RAS POINTER 01033001
000856	0788			1281	BER R8	EQUAL, EXIT TO ADDR IN R8 01034001
000858	47FD 00EC	000EC		1282	B FREEDSA(R13)	FREE DSA SUBROUTINE IN EPILOG 01035001
				1283	*	01036001
				1284	*****	01037001
				1285	*	01038001
				1286	EPILOGUE PROGRAM	01039001
				1287	*	01040001
				1288	*****	01041001
				1289	*	01042001
				1290	THIS ROUTINE IS EXECUTED WHENEVER AN EXIT IS MADE FROM	01043001
				1291	A PROCEDURE (ENTRY POINT EPILOGP) OR BLOCK (ENTRY POINT	01044001
				1292	EPILOGB) VIA THE 'END' STATEMENT	01045001
				1293	*	01046001
				1294	CLEAR THE CORRESPONDING ENTRY FROM RAS AND FREES	01047001
				1295	THE STORAGE FOR DSA AND ARRAYS. IF THE EXIT WAS FROM A	01048001
				1296	PRECOMPILED PROCEDURE, THE PROCEDURE IS DELETED	01049001
				1297	*	01050001
				1298	CALLING SEQUENCE - (ENTRY VIA BRLIST)	01051001
				1299	*	01052001
				1300	B EPILOGP(R13)	01053001
				1301	*	01054001
00085C	D207 D090 A018 00090 00018			1302	EPILP MVC FCTVALST(8,R13),24(CDSA)	FUNCTION VALUE TO FSA 01055001
000862	418D 0090	00090		1303	LA R8,FCTVALST(R13)	FUNCTION VALUE ADDR TO R8 01056001
000866	45FD 00EC	000EC		1304	BAL R15,FREEDSA(R13)	LEAVE BLOCK AND UPDATE REG 01057001
00086A	58ED 00C8	000C8		1305	L R14,RASPT(R13)	01058001
00086E	58F0 E00C	0000C		1306	L R15,12(,R14)	RETURN ADDR FROM RAS 01059001
000872	07FF			1307	BR R15	RETURN 01060001
				1308	*	01061001
				1309	CALLING SEQUENCE - (ENTRY VIA BRLIST)	01062001
				1310	*	01063001
				1311	B EPILOGB(R13)	01064001
				1312	*	01065001
		00874		1313	EPILB EQU *	01066001
		000EC		1314	FREEDSA EQU EPILOGB	01067001
		00874		1315	FRDSA EQU *	01068001
00087A	50FD 009C	0009C		1316	ST R15,BRRST(R13)	SAVE RETURN ADDR 01069001
000878	58ED 00C8	000C8		1317	L R14,RASPT(R13)	FETCH RAS POINTER 01070001
00087C	4BED 00AA	000AA		1318	SH R14,EIGHT(R13)	REDUCE RETURN ADDR STACK 01071001
000880	50ED 00C8	000C8		1319	ST R14,RASPT(R13)	SAVE RAS POINTER 01072001
000884	95FE E008	00008		1320	CLI 8(R14),RASLOADM	LOAD PROCEDURE ENTRY ? 01073001
000888	4770 D8A0	008A0		1321	BNE VTEST	NO 01074001
00088C	581D 00D0	000D0		1322	L R1,RASPB(R13)	FETCH ADDR OF NAME OF 01075001
000890	1801			1323	LR R0,R1	PROCEDURE TO BE DELETED 01076001
000892	4110 1008	00008		1324	LA R1,8(,R1)	CLEAR PRECOMPILED PROCEDURE 01077001
000896	501D 00D0	000D0		1325	ST R1,RASPB(R13)	NAME FROM RAS 01078001
				1326	*	01079001
				1327		01080001
00089A	0A09			1328+	DELETE EPLOC=(0)	01-DELET
				1329	SVC 9	ISSUE DELETE SVC
00089C	47F0 D878	00878		1330	B FRDSA+4	CONTINUE 01081001
				1331	*	01082001
				1332	VALUE ARRAY HANDLING	01083001
				1333	*	01084001
		008A0		1334	EPIL3 EQU *	01085001
0008A0	BF03 A00A	0000A		1335	VTST ICM R0,B'0011',10(CDSA)	TEST VALUE ARRAY FIELD 01086001
0008A4	4780 D8DA	008DA		1336	BZ ATEST	ZERO, GOTO NEXT TEST 01087001
0008A8	4820 A00A	0000A		1337	LH R2,10(,CDSA)	LOAD LAST VALUE ARRAY DISPL 01088001
0008AC	5812 A000	00000		1338	L R1,0(R2,CDSA)	LOAD ADDR OF STOR MAP FCT 01089001
0008B0	5800 1010	00010		1339	L R0,16(,R1)	LOAD LENGTH OF ARRAY 01090001
0008B4	4820 1002	00002		1340	LH R2,2(,R1)	LOAD BEFORE LAST VALUE 01091001
				1341	*	01092001
0008B8	4020 A00A	0000A		1342	STH R2,10(,CDSA)	ARRAY DISPLACEMENT 01093001
						STORE BEFORE LAST VALUE 01094001

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				1343 *		ARRAY DISPLACEMENT	01095001
				1344	SR R2,R2	CLEAR A WORK REGISTER	01096001
0008BC	1B22						01097001
0008BE	4320 1000		00000	1345	IC R2,0(,R1)		01098001
0008C2	4120 2001		00001	1346	LA R2,1(,R2)	CALCULATE LENGTH OF STORAGE	01099001
0008C6	8920 0002		00002	1347	SLL R2,2	MAPPING FUNCTION	01100001
0008CA	4120 2010		00010	1348	LA R2,16(,R2)		01101001
0008CE	1A02			1349	AR R0,R2	ADD ST MAP FUNCT LENGTH	01102001
				1350 *		AND ARRAY LENGTH	01103001
				1351 *		FREEMAIN FOR VAL ARRAY	01104001
				1352	FREEMAIN R,LV=(0),A=(1)	INCL ST MAP FCT	01-FREEM
				1353+*	OS/VS2 RELEASE 3 VERSION -- 10/25/74		01-FREEM
0008D0	4110 1000		00000	1354+	LA 1,0(0,1)	CLEAR HI ORDER BYTE	01-FREEM
0008D4	0A0A			1355+	SVC 10	ISSUE FREEMAIN SVC	01105001
				1356 *			01106001
0008D6	47F0 D8A0		008A0	1357	B VTEST	RETURN TO VALUE ARRAY TEST	01107001
				1358 *			01108001
				1359 *	ARRAY HANDLING		01109001
				1360 *			01110001
0008DA	1B22			1361 ATEST	SR R2,R2	CLEAR WORK REGISTER	01111001
0008DC	BF23 A00E		0000E	1362	ICM R2,B'0011',14(CDSA)	TEST LAST ARRAY DISPLACEMENT	01112001
0008E0	4780 D8FE		008FE	1363	BZ DSAHDL	ZERO, GOTO DSAHDL	01113001
0008E4	4832 A002		00002	1364	LH R3,2(R2,CDSA)	LOAD BEFORE LAST ARRAY DISPL	01114001
0008E8	4030 A00E		0000E	1365	STH R3,14(,CDSA)	STORE BEFORELAST ARRAY DISPL	01115001
0008EC	5812 A008		00008	1366	L R1,8(R2,CDSA)	LOAD ADDR OF LOWEST COMPON	01116001
0008F0	5802 A010		00010	1367	L R0,16(R2,CDSA)	LOAD LENGTH OF ARRAY	01117001
				1368 *			01118001
				1369	FREEMAIN R,LV=(0),A=(1)	FREEMAIN FOR ARRAY	01-FREEM
				1370+*	OS/VS2 RELEASE 3 VERSION -- 10/25/74		01-FREEM
0008F4	4110 1000		00000	1371+	LA 1,0(0,1)	CLEAR HI ORDER BYTE	01-FREEM
0008F8	0A0A			1372+	SVC 10	ISSUE FREEMAIN SVC	01119001
				1373 *			01120001
0008FA	47F0 D8DA		008DA	1374	B ATEST	RETURN TO ARRAY TEST	01121001
				1375 *			01122001
				1376 *	DSA HANDLING		01123001
				1377 *			01124001
0008FE	181A			1378 DSAHDL	LR R1,CDSA	LOAD DSA ADDR	01125001
000900	4820 A008		00008	1379	LH R2,8(,CDSA)	LOAD PBT DISPL	01126001
000904	5830 A000		00000	1380	L R3,0(,CDSA)	UPDATE DSA ADDR	01127001
000908	5032 B000		00000	1381	ST R3,0(R2,PBT)	IN PBT	01128001
00090C	4802 B004		00004	1382	LH R0,4(R2,PBT)	LENGTH OF DSA TO R0	01129001
000910	58A0 A004		00004	1383	L CDSA,4(,CDSA)	RESET CDSA POINTER	01130001
000914	98BC A010		00010	1384	LM PBT,LAT,16(CDSA)	UPDATE PBT AND LAT REGISTERS	01131001
				1385 *			01132001
				1386	FREEMAIN R,LV=(0),A=(1)	FREEMAIN FOR DSA	01-FREEM
				1387+*	OS/VS2 RELEASE 3 VERSION -- 10/25/74		01-FREEM
000918	4110 1000		00000	1388+	LA 1,0(0,1)	CLEAR HI ORDER BYTE	01-FREEM
00091C	0A0A			1389+	SVC 10	ISSUE FREEMAIN SVC	01133001
				1390 *			01134001
00091E	58FD 009C		0009C	1391	L R15,BRRST(R13)	RESTORE RETURN ADDR	01135001
000922	07FF			1392	BR R15	BRANCH	01136001
				1393 *			01137001
				1394	*****		01138001
				1395 *			01139001
				1396 *	STANDARD PROCEDURE DECLARATION ROUTINE		01140001
				1397 *			01141001
				1398	*****		01142001
				1399 *			01143001
				1400 *			01144001
				1401 *	ENTERED FROM THE PROLOG ROUTINE IF PBN IS ZERO, IE A		01145001
				1402 *	STANDARD PROCEDURE IS CALLED VIA AN ACTUAL PARAMETER TO		01146001
				1403 *	AN ANOTHER PROCEDURE		01147001
				1404 *			01148001
				1405 *	ON ENTRY, R15 CONTAINS THE ADDR OF THE PARAMETER		01149001
				1406 *	LIST, WHILE R8 CONTAINS THE INTERNAL NAME OF THE		01150001
				1407 *	STANDARD PROCEDURE.		01151001
				1408 *	THE ROUTINE BUILDS THE PARAMETER LIST AND EXECUTES THE		01152001
				1409 *	CALL IN THE SAME WAY AS WOULD NORMALLY BE DONE BY THE		01153001
				1410 *	GENERATED OBJECT CODE. SINCE THE ROUTINE MAY BE ENTERED		01154001
				1411 *	REPEATEDLY DURING THE EVALUATION OF THE ACTUAL		01155001
				1412 *	PARAMETERS, THE PARAMETER LIST AND OTHER INFORMATION IS		01156001
				1413 *	STORED IN A DYNAMIC AREA CALLED SPDA.		01157001
				1414 *			01158001
000924				1415	DS 0H		01159001
		00924		1416 SPDECL	EQU *-FSAREA		01160001
				1417 *			01161001
				1418 *	TEST FOR AUXILIARY ROUTINE INPUT OR OUTPUT		01162001
				1419 *			01163001
000924	1288			1420	LTR R8,R8		01164001
000926	0728			1421	BPR R8	TO ROUTINE INPUT OR OUTPUT	01165001
				1422 *			01166001
				1423 *	GET DYNAMIC STORAGE AREA		01167001
				1424 *			01168001
000928	182F			1425 SPDECL00	LR R2,R15	SAVE R15 DURING GETMAIN	01169001
				1426 *			01170001
				1427	GETMAIN R,LV=SPDALG		01-GETMA
				1428+*	OS/VS2 RELEASE 4 VERSION -- 10/21/75		01-GETMA
00092A	0700			1429+	CNOP 0,4		01-GETMA
00092C	4510 D934		00934	1430+	BAL 1,*+8	BRANCH AROUND LENGTH	01-GETMA
000930	00000048			1431+	DC A(SPDALG)	LENGTH	01-GETMA
000934	5800 1000		00000	1432+	L 0,0(0,1)	LOAD LENGTH	01-GETMA
000938	0A0A			1433+	SVC 10	ISSUE GETMAIN SVC	01171001
				1434 *			01172001
00093A	18F2			1435	LR R15,R2		01173001
00093C	D203 1000 DB44 00000 00B44		00B44	1436	MVC 0(4,R1),SPDAP	INSERT CHAIN ADDR	01174001
000942	5010 DB44		00B44	1437	ST R1,SPDAP	STORE CURRENT AREA POINTER	01175001
000946	1851			1438	LR R5,R1		



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	R:5	00000		1439	USING	SPDA,R5	01176001
000948	5080 501C		0001C	1440	ST	R8,PRID	01177001
00094C	184C			1441	LR	R4,LAT	01178001
00094E	1808			1442	LR	R0,R8	01179001
000950	1820			1443	LR	R2,R0	01180001
000952	8820 000C		0000C	1444	SRL	R2,12	01181001
000956	5400 DE48		00E48	1445	N	R0,=F'3'	01182001
00095A	4770 D962		00962	1446	BNZ	*+8	01183001
00095E	4100 0001		00001	1447	LA	R0,1	01184001
000962	4900 F006		00006	1448	CH	R0,6(,R15)	01185001
000966	4770 D220		00220	1449	BNE	ERROR21	01186001
				1450	*		01187001
				1451	*	INITIALIZE FOR CREATING PARAMETER LIST	01188001
				1452	*		01189001
00096A	4110 5020		00020	1453	LA	R1,PARLIST	01190001
00096E	4130 5030		00030	1454	LA	R3,PARAMS	01191001
000972	9200 1000	00000		1455	MVI	0(R1),0	01192001
000976	D20A 1001	1000 00001	00000	1456	MVC	1(11,R1),0(R1)	01193001
00097C	4220 DB49		00B49	1457	STC	R2,FPTYP	01194001
000980	4220 DB48		00B48	1458	STC	R2,FPTYP	01195001
000984	D700 DB48	F005 00B48	00005	1459	XC	FPTYP,5(R15)	01196001
00098A	9107 DB48		00B48	1460	TM	FPTYP,X'07'	01197001
00098E	4780 D9B2		009B2	1461	BZ	SPDECL15	01198001
000992	471D 021C		0021C	1462	BO	PARERR(R13)	01199001
				1463	*		01200001
				1464	*	TYPES ARE NOT IDENTICAL BUT MAY BE COMPATIBLE	01201001
				1465	*		01202001
000996	9108 DB49		00B49	1466	TM	FPTYP,X'08'	01203001
00099A	471D 021C		0021C	1467	BO	PARERR(R13)	01204001
00099E	9103 DB48		00B48	1468	TM	FPTYP,X'03'	01205001
0009A2	47ED 021C		0021C	1469	BNO	PARERR(R13)	01206001
0009A6	9103 F005		00005	1470	TM	5(R15),X'03'	01207001
0009AA	47BD 021C		0021C	1471	BNM	PARERR(R13)	01208001
0009AE	9680 1000		00000	1472	OI	0(R1),X'80'	01209001
				1473	*		01210001
				1474	*	ACTIVATE THUNK TO GET ADDR OF ACTUAL PARAMETER	01211001
				1475	*		01212001
0009B2	90F4 5004		00004	1476	SPDECL15 STM	R15,R4,SPSAVE	01213001
0009B6	D203 DB40	F000 00B40	00000	1477	MVC	SPTHAD(4),0(R15)	01214001
0009BC	583D 00C8		000C8	1478	L	R3,RASPT(R13)	01215001
0009C0	4130 3008		00008	1479	LA	R3,8(,R3)	01216001
0009C4	593D 00D0		000D0	1480	C	R3,RASPB(R13)	01217001
0009C8	47BD 025C		0025C	1481	BNL	RASOVERF(R13)	01218001
0009CC	503D 00C8		000C8	1482	ST	R3,RASPT(R13)	01219001
0009D0	50A0 3000		00000	1483	ST	CDSA,0(,R3)	01220001
0009D4	98BC A010		00010	1484	LM	PBT,LAT,16(CDSA)	01221001
0009D8	4120 D9DE		009DE	1485	LA	R2,SPDECL17-8	01222001
0009DC	5023 0004		00004	1486	ST	R2,4(R3)	01223001
0009E0	58F0 DB40		00B40	1487	L	R15,SPTHAD	01224001
0009E4	07FF			1488	BR	R15	01225001
				1489	*		01226001
				1490	*	RETURN HERE VIA CAP2	01227001
				1491	*	R8 CONTAINS ADDR OF ACTUAL PARAM	01228001
				1492	*		01229001
0009E6	5850 DB44		00B44	1493	SPDECL17 L	R5,SPDAP	01230001
0009EA	98F4 5004		00004	1494	LM	R15,R4,SPSAVE	01231001
0009EE	598D 0098		00098	1495	C	R8,ASTLOC(R13)	01232001
0009F2	4770 D9FE		009FE	1496	BNE	SPDECL19	01233001
0009F6	D207 3000	8000 00000	00000	1497	MVC	0(8,R3),0(R8)	01234001
0009FC	1883			1498	LR	R8,R3	01235001
0009FE	5680 1000		00000	1499	SPDECL19 O	R8,0(,R1)	01236001
000A02	5080 1000		00000	1500	ST	R8,0(,R1)	01237001
000A06	9103 501C		0001C	1501	TM	PRID,X'03'	01238001
000A0A	4770 DA2A		00A2A	1502	BNZ	SPDECL01	01239001
				1503	*		01240001
				1504	*	I/O PROCEDURE	01241001
				1505	*		01242001
000A0E	9102 501E		0001E	1506	TM	PRID+2,X'02'	01243001
000A12	4780 DA2A		00A2A	1507	BZ	SPDECL01	01244001
000A16	4900 DE68		00E68	1508	CH	R0,=H'1'	01245001
000A1A	4770 DA2A		00A2A	1509	BNE	SPDECL01	01246001
000A1E	9108 F004		00004	1510	TM	4(R15),X'08'	01247001
000A22	4780 DA2A		00A2A	1511	BZ	SPDECL01	01248001
000A26	9640 1000		00000	1512	OI	0(R1),X'40'	01249001
				1513	*		01250001
000A2A	4110 1004		00004	1514	SPDECL01 LA	R1,4(,R1)	01251001
000A2E	4130 3008		00008	1515	LA	R3,8(,R3)	01252001
000A32	41F0 F008		00008	1516	LA	R15,8(,R15)	01253001
000A36	8820 0004		00004	1517	SRL	R2,4	01254001
000A3A	4600 D97C		0097C	1518	BCT	R0,SPDECL02	01255001
				1519	*		01256001
				1520	*	PARAMETER LIST COMPLETE - ACTIVATE THE PROCEDURE	01257001
				1521	*		01258001
000A3E	50F0 5004		00004	1522	ST	R15,SPSAVE	01259001
000A42	4110 5020		00020	1523	LA	R1,PARLIST	01260001
000A46	9180 501F		0001F	1524	TM	PRID+3,X'80'	01261001
000A4A	4710 DA68		00A68	1525	BO	SPDECL03	01262001
000A4E	4320 501F		0001F	1526	IC	R2,PRID+3	01263001
000A52	5420 DE4C		00E4C	1527	N	R2,=X'00000FC'	01264001
000A56	58F2 4000		00000	1528	L	R15,0(R2,R4)	01265001
000A5A	9103 501C		0001C	1529	TM	PRID,X'03'	01266001
000A5E	4770 DAC6		00AC6	1530	BNZ	SPDECL04	01267001
				1531	*		01268001
				1532	*	I/O PROCEDURE EXIT	01269001
				1533	*		01270001
000A62	05EF			1534	BALR	R14,R15	01271001

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000A64	47F0 DB1A		00B1A	1535	B	SPDECL18	01272001
				1536	*		01273001
000A68	9150 501F	0001F		1537	SPDECL03	TM PRID+3,X'50'	01274001
000A6C	47B0 DAC6		00AC6	1538	BNM	SPDECL04	01275001
000A70	9120 501F	0001F		1539	TM	PRID+3,X'20'	01276001
000A74	47B0 DA92		00A92	1540	BZ	SPDECL05	01277001
				1541	*		01278001
				1542	*	LENGTH FUNCTION	01279001
				1543	*		01280001
000A78	5811 0000		00000	1544	L	R1,0(R1)	01281001
000A7C	D201 D09C	1000 0009C	00000	1545	MVC	HW(2,R13),0(R1)	01282001
000A82	480D 009C		0009C	1546	LH	R0,HW(R13)	01283001
000A86	0600			1547	BCTR	R0,0	01284001
000A88	0600			1548	BCTR	R0,0	01285001
000A8A	500D 0090		00090	1549	ST	R0,FCTVALST(R13)	01286001
000A8E	47F0 DB16		00B16	1550	B	SPDECL13	01287001
				1551	*		01288001
				1552	*	SIGN FUNCTION	01289001
				1553	*		01290001
000A92	5820 1000		00000	1554	SPDECL05	L R2,0(,R1)	01291001
000A96	1800			1555	SR	R0,R0	01292001
000A98	9180 1000	00000		1556	TM	0(R1),X'80'	01293001
000A9C	4710 DAAC		00AAC	1557	BO	SPDECL06	01294001
000AA0	4400 D2E2		002E2	1558	EX	0,LINSTR	01295001
000AA4	4400 D2EA		002EA	1559	EX	0,LTRINSTR	01296001
000AA8	47F0 DAB0		00AB0	1560	B	SPDECL07	01297001
				1561	*		01298001
000AAC	BF0F 2000		00000	1562	SPDECL06	ICM R0,B'1111',0(R2)	01299001
000AB0	47B0 DABE		00ABE	1563	SPDECL07	BZ SPDECL08	01300001
000AB4	4100 0001		00001	1564	LA	R0,1	01301001
000AB8	4720 DABE		00ABE	1565	BP	SPDECL08	01302001
000ABC	1300			1566	LCR	R0,R0	01303001
000ABE	5000 D090		00090	1567	SPDECL08	ST R0,FCTVALST(,R13)	01304001
000AC2	47F0 DB16		00B16	1568	B	SPDECL13	01305001
				1569	*		01306001
				1570	*	MATHEMATICAL FUNCTIONS (INCLUDING ABS, ENTIER)	01307001
				1571	*		01308001
000AC6	5820 1000		00000	1572	SPDECL04	L R2,0(,R1)	01309001
000ACA	9180 1000	00000		1573	TM	0(R1),X'80'	01310001
000ACE	47B0 DAE8		00AE8	1574	BZ	SPDECL09	01311001
000AD2	58E0 2000		00000	1575	L	R14,0(,R2)	01312001
000AD6	458D 0120		00120	1576	BAL	R8,CNVIRD(R13)	01313001
000ADA	4400 D2E6		002E6	1577	EX	0,STINSTR	01314001
000ADE	D203 1000	D098 00000	00098	1578	MVC	0(4,R1),ASTLOC(R13)	01315001
000AE4	47F0 DAEC		00AEC	1579	B	SPDECL10	01316001
				1580	*		01317001
000AE8	4400 D2E2		002E2	1581	SPDECL09	EX 0,LINSTR	01318001
000AEC	9580 501F	0001F		1582	SPDECL10	CLI PRID+3,X'80'	01319001
000AF0	4770 DAFC		00AFC	1583	BNE	SPDECL11	01320001
				1584	*		01321001
				1585	*	ABS FUNCTION	01322001
				1586	*		01323001
000AF4	4400 D2EE		002EE	1587	EX	0,LPRINSTR	01324001
000AF8	47F0 DB12		00B12	1588	B	SPDECL14	01325001
				1589	*		01326001
000AFC	95F0 501F	0001F		1590	SPDECL11	CLI PRID+3,X'F0'	01327001
000B00	4770 DB10		00B10	1591	BNE	SPDECL12	01328001
				1592	*		01329001
				1593	*	ENTIER FUNCTION	01330001
				1594	*		01331001
000B04	458D 0140		00140	1595	BAL	R8,ENTIER(R13)	01332001
000B08	50ED 0090		00090	1596	ST	R14,FCTVALST(R13)	01333001
000B0C	47F0 DB16		00B16	1597	B	SPDECL13	01334001
				1598	*		01335001
				1599	*	ALL OTHER FUNCTIONS	01336001
				1600	*		01337001
000B10	05EF			1601	SPDECL12	BALR R14,R15	01338001
000B12	4400 D2E6		002E6	1602	SPDECL14	EX 0,STINSTR	01339001
000B16	588D 0098		00098	1603	SPDECL13	L R8,ASTLOC(R13)	01340001
				1604	*		01341001
				1605	*	COMMON EXIT	01342001
				1606	*		01343001
000B1A	1815			1607	SPDECL18	LR R1,R5	01344001
000B1C	D203 DB44	1000 00B44	00000	1608	MVC	SPDAP(4),0(R1)	01345001
000B22	5820 5004		00004	1609	L	R2,SPSAVE	01346001
				1610	*		01347001
				1611		FREEMAIN R,A=(1),LV=SPDALG	01348001
				1612+	*	OS/VS2 RELEASE 3 VERSION -- 10/25/74	01-FREEM
000B26	0700			1613+	CNOP	0,4	01-FREEM
000B28	47F0 DB30	00B30		1614+	B	*+8	01-FREEM
000B2C	00000048			1615+	DC	A(SPDALG)	01-FREEM
000B30	5800 DB2C	00B2C		1616+	L	0,*-4	01-FREEM
000B34	4110 1000	00000		1617+	LA	1,0(0,1)	01-FREEM
000B38	0A0A			1618+	SVC	10	01-FREEM
				1619	*		01349001
000B3A	98BC A010		00010	1620	LM	PBT,LAT,16(CDSA)	01350001
000B3E	07F2			1621	BR	R2	01351001
				1622	*		01352001
				1623		DROP R5	01353001
				1624	*		01354001
				1625	*	CONSTANTS AND WORK AREAS	01355001
				1626	*		01356001
000B40	00000000			1627	SPTHAD	DC F'0'	01357001
000B44	00000000			1628	SPDAP	DC F'0'	01358001
000B48	00			1629	FPTYP	DC X'00'	01359001
000B49	00			1630	FPTYP	DC X'00'	01360001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				1631 *			01361001
				1632 *	DYNAMIC STORAGE AREA		01362001
				1633 *			01363001
000000		00000	00048	1634 SPDA	DSECT		01364001
000000				1635	DS F	LINK TO LOWER DA	01365001
000004				1636 SPSAVE	DS 6F	REGS R15, R0, R1, R2, R3, R4	01366001
00001C				1637 PRID	DS F	PROCEDURE IDENTIFICATION	01367001
000020				1638 PARLIST	DS 3F	PARAMETER LIST	01368001
000030				1639 PARAMS	DS 3D	PARAMETER VALUES	01369001
		00048		1640 SPDALG	EQU *-SPDA		01370001
				1641 *			01371001
000B4A		00000	00E6E	1642 IHIFSARA	CSECT		01372001
				1643 *			01373001
				1644	*****		01374001
				1645 *			01375001
				1646 *	CALL SWITCH ELEMENT SUBROUTINE		01376001
				1647 *			01377001
				1648	*****		01378001
				1649 *			01379001
				1650 *	THIS ROUTINE IS AN INTERMEDIATE LINK BETWEEN A SWITCH		01380001
				1651 *	DESIGNATOR AND A SWITCH LIST		01381001
				1652 *			01382001
				1653 *	IT SEARCHES THE DSA CHAIN FOR THE DSA OF THE SWITCH LIST		01383001
				1654 *	AND BRANCHES TO THE CALLED SWITCH LIST ENTRY		01384001
				1655 *	CALLING SEQUENCE - (ENTRY VIA BRLIST)		01385001
				1656 *	ADDR OF SWITCH LIST IN R8, ADDR OF DSA FOR		01386001
				1657 *	BLOCK IN WHICH SWITCH IS DECLARED IN REG GDSA AND THE		01387001
				1658 *	SWITCH ELEMENT NUMBER IN R15		01388001
				1659 *			01389001
				1660 *			01390001
				1661 *	BAL R14,CSWE1(R13)		01391001
				1662 *	---	RETURN VIA CSWE2 WITH BRANCH	01392001
				1663 *		ADDR IN R8 AND ADDR OF	01393001
				1664 *		DSA IN GDSA	01394001
				1665 *			01395001
000B4A	12FF			1666 CSWE1A	LTR R15,R15	ELEMENT NUMBER POSITIVE ?	01396001
000B4C	47DD 0254	00254		1667	BNH SWDMERR(R13)	NO, DIMENSION ERROR	01397001
000B50	49F0 8002	00002		1668	CH R15,2(,R8)	COMPARE NO WITH SWITCH LIST NO	01398001
000B54	472D 0254	00254		1669	BH SWDMERR(R13)	DIMENSION ERROR	01399001
000B58	89F0 0002	00002		1670	SLL R15,2		01400001
000B5C	583D 00C8	000C8		1671	L R3,RASPT(R13)	RAS POINTER FROM TOP	01401001
000B60	4133 0008	00008		1672 CSWEI1	LA R3,8(R3)	RESERVE ONE ENTRY IN RAS	01402001
000B64	593D 00D0	000D0		1673	C R3,RASPB(R13)	STACK OVERFLOW ?	01403001
000B68	47BD 025C	0025C		1674	BNL RASOVERF(R13)		01404001
000B6C	50A0 3000	00000		1675	ST CDSA,0(,R3)	STORE CDSA IN RAS	01405001
000B70	50E0 3004	00004		1676	ST R14,4(,R3)	SAVE RETURN ADDR IN STACK	01406001
000B74	1BEE			1677	SR R14,R14	NOT CALLING BLOCK INDICATION	01407001
000B76	19A9			1678	CR CDSA,GDSA	SWITCH BLOCK REACHED ?	01408001
000B78	4770 DB86	00B86		1679	BNE CSWEI2	NO	01409001
000B7C	503D 00C8	000C8		1680	ST R3,RASPT(R13)	SAVE RAS TOP POINTER	01410001
000B80	58FF 8000	00000		1681	L R15,0(R15,R8)	ADDR OF SWITCH ELEMENT	01411001
000B84	07FF			1682	BR R15		01412001
				1683 *			01413001
000B86	4810 A008	00008		1684 CSWEI2	LH R1,8(,CDSA)	PROGRAM BLOCK DISPL TO REG	01414001
000B8A	5820 A000	00000		1685	L R2,0(,CDSA)	LAST GENERATION DSA POINTER IS	01415001
000B8E	5021 B000	00000		1686	ST R2,0(R1,PBT)	STORED IN PROGRAM BLOCK TABLE	01416001
000B92	58A0 A004	00004		1687	L CDSA,4(,CDSA)	LOAD DYNAMICALLY ENCLOSING DSA	01417001
000B96	98BC A010	00010		1688	LM PBT,LAT,16(CDSA)	PBT AND LAT CAN BE DIFFERENT	01418001
000B9A	47F0 DB60	00B60		1689	B CSWEI1	CONTINUE	01419001
				1690 *			01420001
				1691 *	THIS ROUTINE HANDLES THE TRANSFER FROM THE SWITCH LIST		01421001
				1692 *	BACK TO THE SWITCH DESIGNATOR		01422001
				1693 *			01423001
				1694 *	IT RELOADS CDSA WITH THE ADDR OF THE DSA THAT WAS		01424001
				1695 *	ACTIVE WHEN CSWEU WAS ENTERED		01425001
				1696 *			01426001
				1697 *	CALLING SEQUENCE - (ENTRY VIA BRLIST)		01427001
				1698 *	B CSWE2(R13)		01428001
				1699 *			01429001
000B9E	583D 00C8	000C8		1700 CSWE2A	L R3,RASPT(R13)	RAS POINTER FROM TOP	01430001
000BA2	58E0 3004	00004		1701 CSWEI3	L R14,4(,R3)	RETURN ADDR FROM STACK	01431001
000BA6	483D 00AA	000AA		1702	SH R3,EIGHT(R13)	RELEASE ONE ENTRY IN RAS	01432001
000BAA	503D 00C8	000C8		1703	ST R3,RASPT(R13)	SAVE RAS TOP POINTER	01433001
000BAE	12EE	1704		1704	LTR R14,R14	RETURN ADDR FOUND ?	01434001
000BB0	077E	1705		1705	BNZR R14	YES, RETURN	01435001
000BB2	58A3 0000	00000		1706	L CDSA,0(R3)	NEW DSA POINTER FROM RAS	01436001
000BB6	4810 A008	00008		1707	LH R1,8(,CDSA)	PROGRAM BLOCK DISPL TO REG	01437001
000BBA	50A1 B000	00000		1708	ST CDSA,0(R1,PBT)	CURRENT DSA POINTER TO PBT	01438001
000BBE	98BC A010	00010		1709	LM PBT,LAT,16(CDSA)	PBT AND LAT CAN BE DIFFERENT	01439001
000BC2	47F0 DBA2	00BA2		1710	B CSWEI3	CONTINUE	01440001
				1711 *			01441001
				1712	*****		01442001
				1713 *			01443001
				1714 *	LOAD PRECOMPILED PROCEDURE		01444001
				1715 *			01445001
				1716	*****		01446001
				1717 *			01447001
				1718 *	ENTERED FROM THE DECLARATION OF A 'CODE' PROCEDURE		01448001
				1719 *			01449001
				1720 *	SEARCH THE BOTTOM PART OF RAS FOR THE NAME OF THE		01450001
				1721 *	PROCEDURE. IF IT IS NOT FOUND, THE PRECOMPILED PROCEDURE		01451001
				1722 *	WITH THE SAME NAME IS LOADED AND ENTRIES ARE MADE IN		01452001
				1723 *	RAS FOR THE NAME AND FOR THE ENTRY POINT		01453001
				1724 *			01454001
				1725 *	THE ENTRY POINT ADDR IS STORED IN THE PROGRAM BLOCK TABLE		01455001
				1726 *			01456001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				1727 *		CALLING SEQUENCE - (ENTRY VIA BRLIST)	01457001
				1728 *			01458001
				1729 *	BAL	R8,LOADPP(R13)	01459001
				1730 *	DC	CL8(PNAME)	01460001
				1731 *	DC	H'PBN'	01461001
				1732 *			01462001
000BC6	9834 D0CC		000CC	1733	LOADPPA	LM R3,R4,RASEND(R13)	01463001
000BCA	4120 0008		00008	1734	LA	R2,8	01464001
000BCE	1934			1735	LOADPP2	CR R3,R4	01465001
000BD0	47D0 DC04		00C04	1736	BNH	LOADPP1	01466001
000BD4	D507 4000	8000 00000	00000	1737	CLC	0(8,R4),0(R8)	01467001
000BDA	4140 4008		00008	1738	LA	R4,8(,R4)	01468001
000BDE	4770 DBCE		00BCE	1739	BNE	LOADPP2	01469001
000BE2	583D 00C8		000C8	1740	L	R3,RASPT(R13)	01470001
000BE6	5B4D 00D0		000D0	1741	S	R4,RASPB(R13)	01471001
000BEA	8840 0003		00003	1742	SRL	R4,3	01472001
000BEE	1B32			1743	SR	R3,R2	01473001
000BF0	95FE 3008	00008		1744	CLI	8(R3),RASLOADM	01474001
000BF4	4770 DBEE		00BEE	1745	BNE	LOADPP3	01475001
000BF8	4640 DBEE		00BEE	1746	BCT	R4,LOADPP3	01476001
000BFC	5800 300C		0000C	1747	L	R0,12(,R3)	01477001
000C00	47F0 DC38		00C38	1748	B	LOADPP4	01478001
				1749 *			01479001
				1750 *		PROCEDURE MUST BE LOADED	01480001
				1751 *			01481001
000C04	583D 00C8		000C8	1752	LOADPP1	L R3,RASPT(R13)	01482001
000C08	584D 00D0		000D0	1753	L	R4,RASPB(R13)	01483001
000C0C	1A32			1754	AR	R3,R2	01484001
000C0E	1B42			1755	SR	R4,R2	01485001
000C10	1934			1756	CR	R3,R4	01486001
000C12	47BD 025C		0025C	1757	BNL	RASOVERF(R13)	01487001
000C16	504D 00D0		000D0	1758	ST	R4,RASPB(R13)	01488001
000C1A	503D 00C8		000C8	1759	ST	R3,RASPT(R13)	01489001
000C1E	D207 4000	8000 00000	00000	1760	MVC	0(8,R4),0(R8)	01490001
000C24	1804			1761	LR	R0,R4	01491001
				1762 *			01492001
				1763	LOAD	EPLOC=(0)	01493001
000C26	0700			1764+	CNOP	0,4	01-LOAD
000C28	1B11			1765+	SR	1,1	01-LOAD
000C2A	0A08			1766+	SVC	8	01-LOAD
				1767 *			01494001
000C2C	50A0 3000		00000	1768	ST	CDSA,0(,R3)	01495001
000C30	92FE 3000	00000		1769	MVI	0(R3),RASLOADM	01496001
000C34	5000 3004		00004	1770	ST	R0,4(,R3)	01497001
000C38	4830 8008		00008	1771	LOADPP4	LH R3,8(,R8)	01498001
000C3C	5003 B000		00000	1772	ST	R0,0(R3,PBT)	01499001
				1773 *			01500001
				1774 *			01501001
000C40	47F0 800A		0000A	1775	B	10(,R8)	01502001
				1776 *			01503001
				1777	*****		01504001
				1778 *			01505001
				1779 *	TRACE ROUTINE		01506001
				1780 *			01507001
				1781	*****		01508001
				1782 *			01509001
				1783 *	EXECUTED WHENEVER THE END OF AN ALGOL STATEMENT IS REACHED		01510001
				1784 *			01511001
				1785 *	IF ANY OF THE PARAMETERS TRACE, TRBEG OR TREND WAS		01512001
				1786 *	SPECIFIED. IT CHECKS IF THE SEMICOLON NUMBER IS WITHIN A		01513001
				1787 *	TRACE AREA AND, IF THIS IS THE CASE, STORES IT IN A		01514001
				1788 *	BUFFER FOR OUTPUT ON SYSUT1 WHEN THE BUFFER OVERFLOWS.		01515001
				1789 *	WHEN A DISCONTINUITY IS ENCOUNTERED (TRANSFER INTO A		01516001
				1790 *	TRACE AREA OR BETWEEN THE MAIN PROGRAM AND A PRECOMPILED		01517001
				1791 *	PROCEDURE), THE NAME OF THE ACTIVE MODULE IS ALSO		01518001
				1792 *	STORED IN THE BUFFER		01519001
				1793 *			01520001
				1794 *	THE FORMAT OF THE INFORMATION IN THE BUFFER IS -		01521001
				1795 *			01522001
				1796 *	DC	H'LENGTH'	01523001
				1797 *	DS	H	01524001
				1798 *	DC	H'SC'	01525001
				1799 *	.		01526001
				1800 *	.		01527001
				1801 *	DC	H'0'	01528001
				1802 *	DC	CL4'NAME'	01529001
				1803 *	DC	H'SC'	01530001
				1804 *	.		01531001
				1805 *	.		01532001
				1806 *			01533001
				1807 *	THE ROUTINE IS ENTERED VIA INSTRUCTIONS IN THE BRANCH		01534001
				1808 *	LIST AT BRLIST. THESE INSTRUCTIONS STORE THE SEMICOLON		01535001
				1809 *	NUMBER AND THEN EXECUTE A BRANCH EITHER TO THIS ROUTINE		01536001
				1810 *	OR, IF TRACE WAS NOT REQUESTED, DIRECTLY BACK TO THE		01537001
				1811 *	ALGOL PROGRAM.		01538001
				1812 *			01539001
				1813 *	CALLING SEQUENCE -		01540001
				1814 *			01541001
				1815 *	BAL	R15,TRACE(R13)	01542001
				1816 *	DC	H'SC'	01543001
				1817 *	---	(RETURN POINT)	01544001
				1818 *			01545001
000C44	90EC D054		00054	1819	TRACEA	STM 14,12,ASAVE+12(R13)	01546001
000C48	5830 DE44		00E44	1820	L	R3,=A(IHIFSARB)	01547001
		R:3 00E70		1821	USING	IHIFSARB,R3	01548001
000C4C	181B			1822	LR	R1,PBT	01549001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000C4E	9867 DD64		00D64	1823	LM	R6,R7,TRBEG	LOAD TRACE LIMITS 01550001
000C52	988B 3604		01474	1824	LM	R8,R11,TRBUF	LOAD BUFFER PARAMETERS 01551001
000C56	4840 8000		00000	1825	LH	R4,0(,R8)	LOAD BYTE POINTER 01552001
000C5A	4820 DD56		00D56	1826	LH	R2,TRL1	LENGTH OF NORMAL TRACE ITEM 01553001
				1827	*		01554001
000C5E	D503 1004	DD6E 00004	00D6E	1828	CLC	4(4,R1),TRMPNAME	MAINP OR PRECOMP PROC ? 01555001
000C64	4780 DC7C		00C7C	1829	BE	TRACE10	MAINP 01556001
000C68	9101 D0C2	000C2		1830	TM	OPTSW(R13),PPTRSW	TRACE IN PRECOMP PROC ? 01557001
000C6C	4780 DD4C		00D4C	1831	BZ	TRACE6	NO, PP TRACE 01558001
000C70	9103 DD6C	00D6C		1832	TM	TRFLAG,X'03'	PP CALLED FROM TRACE AREA ? 01559001
000C74	4740 DCCA		00CCA	1833	BM	TRACE0	YES, TRACE REQUIRED 01560001
000C78	47F0 DD4C		00D4C	1834	B	TRACE6	CONDITIONAL - NO PP TRACE 01561001
				1835	*		01562001
000C7C	485D 00C0		00C00	1836	TRACE10	LH R5,SCRC5(R13)	LOAD CURRENT SEMICOLON NUMBER 01563001
000C80	1976			1837	CR	R7,R6	TEST INTERVAL LIMITS 01564001
000C82	47D0 DC96		00C96	1838	BNH	TRACE13	SINGLE INTERVAL 01565001
000C86	1956			1839	CR	R5,R6	CHECK SC AGAINST LIMITS 01566001
000C88	4740 DCC2		00CC2	1840	BL	TRACE15	OUTSIDE INTERVAL 01567001
000C8C	1957			1841	CR	R5,R7	01568001
000C8E	4720 DCC2		00CC2	1842	BH	TRACE15	OUTSIDE INTERVAL 01569001
000C92	47F0 DC9C		00C9C	1843	B	TRACE16	INSIDE INTERVAL 01570001
				1844	*		01571001
000C96	1957			1845	TRACE13	CR R5,R7	DOUBLE INTERVAL 01572001
000C98	4720 DCA4		00CA4	1846	BH	TRACE14	01573001
000C9C	9201 DD6D	00D6D		1847	TRACE16	MVI TRFLAG1,1	INSIDE LOWER INTERVAL 01574001
000CA0	47F0 DCAE		00CAE	1848	B	TRACE18	01575001
				1849	*		01576001
000CA4	1956			1850	TRACE14	CR R5,R6	01577001
000CA6	4740 DCC2		00CC2	1851	BL	TRACE15	OUTSIDE BOTH INTERVALS 01578001
000CAA	9202 DD6D	00D6D		1852	MVI	TRFLAG1,2	INSIDE HIGHER INTERVAL 01579001
000CAE	D500 DD6D	DD6C 00D6D	00D6C	1853	TRACE18	CLC TRFLAG1,TRFLAG	BORDER BEEN CROSSED ? 01580001
000CB4	4780 DCCA		00CCA	1854	BE	TRACE0	NO, SAME INTERVAL AS BEFORE 01581001
000CB8	D200 DD6C	DD6D 00D6C	00D6D	1855	MVC	TRFLAG,TRFLAG1	01582001
000CBE	47F0 DCD4		00CD4	1856	B	TRACE5	01583001
				1857	*		01584001
000CC2	9200 DD6C	00D6C		1858	TRACE15	MVI TRFLAG,0	NO TRACE THIS TIME 01585001
000CC6	47F0 DD4C		00D4C	1859	B	TRACE6	01586001
				1860	*		01587001
000CCA	D503 1004	DD5C 00004	00D5C	1861	TRACE0	CLC 4(4,R1),TRPGID+2	PROGID CHANGED ? 01588001
000CD0	4780 DCDE		00CDE	1862	BE	TRACE1	NO, BRANCH 01589001
000CD4	D203 DD5C	1004 00D5C	00004	1863	TRACE5	MVC TRPGID+2(4),4(R1)	STORE NEW PROGID 01590001
000CDA	4820 DD58		00D58	1864	LH	R2,TRL2	LENGTH OF ITEM WITH PROGID 01591001
000CDE	1802			1865	TRACE1	LR R0,R2	BUFFER FILLED ? 01592001
000CE0	1A04			1866	AR	R0,R4	01593001
000CE2	190A			1867	CR	R0,R10	01594001
000CE4	4740 DD20		00D20	1868	BL	TRACE2	STILL ROOM, BRANCH 01595001
000CE8	12BB			1869	LTR	R11,R11	IF NO RECORDS WRITTEN 01596001
000CEA	4780 DCFC		00CFC	1870	BZ	TRACE4	BYPASS CHECK 01597001
				1871	*		01598001
				1872	CHECK	TRCHECK	01599001
000CEE	4110 35F0		01460	1873+	LA	1,TRCHECK	LOAD PARAMETER REG 1 02-IHBN
000CF2	5800 1008		00008	1874+	L	14,8(0,1)	PICK UP DCB ADDR 01-CHECK
000CF6	58F0 E034		00034	1875+	L	15,52(0,14)	LOAD CHECK ROUTINE ADDR 01-CHECK
000CFA	05EF			1876+	BALR	14,15	LINK TO CHECK ROUTINE 01-CHECK
				1877	*		01600001
				1878	TRACE4	WRITE TRCHECK,SF,,(R8),MF=E	01601001
000CFC	4110 35F0		01460	1879+	TRACE4	LA 1,TRCHECK	LOAD DECB ADDRESS 02-IHBRD
000D00	9220 1005	00005		1880+	MVI	5(1),X'20'	SET TYPE FIELD 02-IHBRD
000D04	5081 000C		0000C	1881+	ST	R8,12(1,0)	STORE AREA ADDRESS 02-IHBRD
000D08	58F1 0008		00008	1882+	L	15,8(1,0)	LOAD DCB ADDRESS 02-IHBRD
000D0C	58F0 F030		00030	1883+	L	15,48(0,15)	LOAD RDWR ROUTINE ADDR 02-IHBRD
000D10	05EF			1884+	BALR	14,15	LINK TO RDWR ROUTINE 02-IHBRD
				1885	*		01602001
000D12	1808			1886	LR	R0,R8	01603001
000D14	1889			1887	LR	R8,R9	SWITCH BUFFERS 01604001
000D16	1890			1888	LR	R9,R0	01605001
000D18	4140 0004		00004	1889	LA	R4,4	RESET POINTER 01606001
000D1C	41B0 B001		00001	1890	LA	R11,1(,R11)	INCR RECORD COUNTER 01607001
				1891	*		01608001
000D20	4920 DD56		00D56	1892	TRACE2	CH R2,TRL1	TEST FOR NEW PROGID 01609001
000D24	4780 DD36		00D36	1893	BE	TRACE3	01610001
				1894	*		01611001
000D28	1818			1895	LR	R1,R8	01612001
000D2A	1A14			1896	AR	R1,R4	01613001
000D2C	D205 1000	DD5A 00000	00D5A	1897	MVC	0(6,R1),TRPGID	PROGID TO BUFFER 01614001
000D32	4140 4006		00006	1898	LA	R4,6(,R4)	01615001
				1899	*		01616001
000D36	1818			1900	TRACE3	LR R1,R8	01617001
000D38	1A14			1901	AR	R1,R4	01618001
000D3A	D201 1000	D0C0 00000	000C0	1902	MVC	0(2,R1),SCRC5(R13)	SEMICOLON COUNTER TO BUFFER 01619001
000D40	4140 4002		00002	1903	LA	R4,2(,R4)	01620001
000D44	4040 8000		00000	1904	STH	R4,0(,R8)	01621001
000D48	908B 3604		01474	1905	STM	R8,R11,TRBUF	01622001
000D4C	98EC D054		00054	1906	TRACE6	LM R14,R12,ASAVE+12(R13)	01623001
000D50	47F0 F002		00002	1907	B	2(,R15)	RETURN TO ALGOL PROGRAM 01624001
				1908	*		01625001
000D54	0700			1909	CNOP	2,4	01626001
000D56	0002			1910	TRL1	DC H'2'	LENGTH OF SEMICOLON FIELD 01627001
000D58	0008			1911	TRL2	DC H'8'	LENGTH OF NEW NAME + SEMICOLON 01628001
000D5A	0000			1912	TRPGID	DC H'0'	FLAG FOR PROGID 01629001
000D5C	00000000			1913	DC	2H'0'	FIRST FOUR BYTES OF PROG NAME 01630001
000D60	FFFF			1914	DC	X'FFFF'	INITIAL VALUE FOR TREND 01631001
000D62	0000						
000D64	00000000			1915	TRBEG	DC F'0'	BEGINNING OF TRACE AREA 01632001
000D68	00000000			1916	TREND	DC F'0'	END OF TRACE AREA 01633001
000D6C	00			1917	TRFLAG	DC X'00'	STATUS INDICATOR 01634001

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
				1918 *	00 - OUTSIDE BOTH TRACE AREAS	01635001
				1919 *	01 - INSIDE LOWER AREA	01636001
				1920 *	02 - INSIDE HIGHER AREA	01637001
000D6D 00				1921 TRFLAG1 DC X'00'	PREVIOUS VALUE OF TRFLAG	01638001
000D6E 40404040				1922 TRMPNAME DC CL4' '	NAME OF MAIN PROGRAM	01639001
				1923 *		01640001
				1924 DROP R3		01641001
				1925 *		01642001
				1926 *****		01643001
				1927 *		01644001
				1928 *	PROGRAM INTERRUPT ROUTINE	01645001
				1929 *		01646001
				1930 *****		01647001
				1931 *		01648001
				1932 *	USE INTERRUPT CODE TO LOAD ENTRY FROM PIETAB TO PASS	01649001
				1933 *	CONTROL TO FSA ERROR ROUTINE BY UPDATING THE OLD PSW	01650001
				1934 *	AND RETURNING FROM SPIE	01651001
				1935 *		01652001
	R:F 00D72			1936 USING PIEROUT,R15		01653001
	** TXA533W USING range overlaps prior USING at statement 504.					
	** TXA301I Record 1653 in SYSD.ALGOLFRT.ASM(IHIFSA)					
000D72 58D0 F0DE		00E50		1937 PIEROUT L R13,=A(IHIFSARA)		01654001
000D76 D207 D0B4 1004 000B4 00004				1938 MVC PGOPSW(8,R13),4(R1)	MOVE BC MODE PSW TO PGOPSW	01655001
000D7C 4320 D0B7		000B7		1939 IC R2,PGOPSW+3(,R13)	LOAD INTERRUPTION CODE	01656001
000D80 5420 F022		00D94		1940 N R2,PGCMASK	REMOVE IMPRECISE CODES (M/91)	01657001
000D84 8B20 0002		00002		1941 SLA R2,2	CONVERT INTERRUPT CODE	01658001
000D88 4122 F026		00D98		1942 LA R2,PIETAB(R2)	FOR TABLE LOOKUP	01659001
000D8C D202 1009 2001 00009 00001				1943 PIEROUT2 MVC 9(3,R1),1(R2)	CHANGE RETURN ADDR IN OLD PSW	01660001
000D92 07FE				1944 BR R14	RETURN FROM SPIE RTN	01661001
				1945 *		01662001
				1946 DROP R15		01663001
				1947 *		01664001
000D94				1948 DC 0F'0'		01665001
000D94 0000000F				1949 PGCMAK DC X'0000000F'	MASK FOR INTERRUPT CODE	01666001
				1950 *		01667001
000D98 00000250				1951 PIETAB DC A(ERROR33)	MOD/91 ONLY	01668001
000D9C 00000250				1952 DC A(ERROR33)	OPERATION - 0C1	01669001
000DA0 00000250				1953 DC A(ERROR33)	PRIVILEGE - 0C2	01670001
000DA4 00000250				1954 DC A(ERROR33)	EXECUTE - 0C3	01671001
000DA8 00000250				1955 DC A(ERROR33)	PROTECTION - 0C4	01672001
000DAC 00000250				1956 DC A(ERROR33)	ADDRESSING - 0C5	01673001
000DB0 00000250				1957 DC A(ERROR33)	SPECIFICATION - 0C6	01674001
000DB4 00000250				1958 DC A(ERROR33)	DATA - 0C7	01675001
000DB8 0000023C				1959 DC A(ERROR28)	FIXED PT OVFL - 0C8	01676001
000DBC 00000244				1960 DC A(ERROR30)	FIXED PT DIVIDE - 0C9	01677001
000DC0 00000250				1961 DC A(ERROR33)	DECIMAL OVFL - 0CA	01678001
000DC4 00000250				1962 DC A(ERROR33)	DECIMAL DIVIDE - 0CB	01679001
000DC8 00000240				1963 DC A(ERROR29)	EXPONENT OVFL - 0CC	01680001
000DCC 00000250				1964 DC A(ERROR33)	EXPONENT UNDERFL - 0CD	01681001
000DD0 00000250				1965 DC A(ERROR33)	FP SIGNIFICANCE - 0CE	01682001
000DD4 00000248				1966 DC A(ERROR31)	FP DIVIDE - 0CF	01683001
				1967 *		01684001
				1968 *****		01685001
				1969 *		01686001
				1970 *	ENTRY POINTS IN IHIIOR USED BY I/O ROUTINES	01687001
				1971 *		01688001
				1972 *****		01689001
				1973 *		01690001
000DD8 00000000				1974 ADRLST DC A(IHIIORCI)		01691001
000DDC 00000000				1975 DC A(IHIIORCL)		01692001
000DE0 00000000				1976 DC A(IHIIOREV)		01693001
000DE4 00000000				1977 DC A(IHIIORNK)		01694001
000DE8 00000000				1978 DC A(IHIIOROP)		01695001
000DEC 00000000				1979 DC A(IHIIOROQ)		01696001
000DF0 00000000				1980 DC A(IHIIOREN)		01697001
000DF4 00000000				1981 DC A(IHIIORGP)		01698001
000DF8 00000000				1982 DC A(IHIIORER)		01699001
				1983 *		01700001
				1984 *****		01701001
				1985 *		01702001
				1986 *	INITIAL ENTRY POINT	01703001
				1987 *		01704001
				1988 *****		01705001
				1989 *		01706001
				1990 DROP R13		01707001
	R:F 00DFC			1991 USING IHIFSAIN,R15		01708001
				1992 *		01709001
000DFC 47F0 F026		00026		1993 IHIFSAIN SAVE (14,12),,'IHIFSAIN LEVEL 2.1 &SYSDATE &SYSTIME'		01710001
000E00 21				1994+IHIFSAIN B 38(0,15)	BRANCH AROUND ID	01-SAVE
000E01 C9C8C9C6E2C1C9D5				1995+ DC AL1(33)	LENGTH OF IDENTIFIER	01-SAVE
000E21 F1				1996+ DC CL32'IHIFSAIN LEVEL 2.1 08/17/12 13.2' IDENTIFIER	IDENTIFIER	01-SAVE
000E22 90EC D00C		0000C		1997+ DC CL1'1'	IDENTIFIER	01-SAVE
				1998+ STM 14,12,12(13)	SAVE REGISTERS	01-SAVE
				1999 *		01711001
000E26 58C0 F054		00E50		2000 L FSAA,=A(IHIFSARA)		01712001
000E2A 50D0 C004		00004		2001 ST R13,4(,FSAA)	LINK SAVE AREAS TOGETHER	01713001
000E2E 50C0 D008		00008		2002 ST FSAA,8(,R13)		01714001
000E32 18DC				2003 LR R13,FSAA		01715001
000E34 5870 F048		00E44		2004 L R7,=A(IHIFSARB)		01716001
	R:7 00E70			2005 USING IHIFSARB,R7		01717001
000E38 47F0 7000		00E70		2006 B ALGIN	TO INITIALIZATION ROUTINE	01718001
				2007 *		01719001
				2008 DROP R15		01720001
				2009 DROP R7		01721001
				2010 *		01722001
000E70		00E70 0068C		2011 IHIFSARB CSECT		01723001

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
				2012 *		01724001
				2013 *****		01725001
				2014 *		01726001
				2015 *       INITIALIZATION ROUTINE		01727001
				2016 *		01728001
				2017 *****		01729001
				2018 *		01730001
				2019 *	THIS IS THE FIRST ROUTINE EXECUTED WHEN AN ALGOL	01731001
				2020 *	PROGRAM IS EXECUTED OR CALLED VIA A PROGRAM	01732001
				2021 *		01733001
				2022 *	PERFORM INITIALIZING FUNCTIONS AND TRANSFER CONTROL TO	01734001
				2023 *	THE ALGOL OBJECT PROGRAM	01735001
				2024 *		01736001
		R:D 00000		2025	USING IHIFSARA,R13	01737001
		R:7 00E70		2026	USING IHIFSARB,R7	01738001
				2027 *		01739001
				2028 ALGIN	SPIE PIEROUT,((1,9),12,15) EXIT FOR RELEVANT PROG CHECKS	01740001
000E70				2029+	CNOP 0,4 ALIGN PICA TO FULLWORD BOUNDARY S	01-SPIE
000E70 4510 700A		00E7A		2030+ALGIN	BAL 1,*+10 ADDRESS AND BYPASS THE PICA S	01-SPIE
000E74 08				2031+	DC BL1'00001000' PROGRAM MASKS	01-SPIE
000E75 000D72				2032+	DC AL3(PIEROUT) EXIT ROUTINE ADDRESS S	01-SPIE
000E78 7FC9				2033+	DC BL2'011111111001001' +01-SPIE	
				+	THE INTERRUPT MASK BYTES 1 AND 2	01-SPIE
000E7A 0A0E				2034+	SVC 14 ISSUE THE SPIE SVC	01-SPIE
				2035 *		01741001
000E7C 5010 D0BC		000BC		2036	ST R1,FSAPICA(,R13)	01742001
				2037 *		01743001
				2038 *	GET STORAGE FOR RETURN ADDR STACK	01744001
				2039 *	INITIALIZE RAS POINTERS	01745001
				2040 *		01746001
				2041	GETMAIN R,LV=2048	01747001
				2042+*	OS/VS2 RELEASE 4 VERSION -- 10/21/75	01-GETMA
000E80 4100 0800		00800		2043+	LA 0,2048(0,0) LOAD LENGTH	01-GETMA
000E84 4510 7018		00E88		2044+	BAL 1,*+4 INDICATE GETMAIN	01-GETMA
000E88 0A0A				2045+	SVC 10 ISSUE GETMAIN SVC	01-GETMA
				2046 *		01748001
000E8A 4B10 D0AA		000AA		2047	SH R1,EIGHT(,R13)	01749001
000E8E 5010 D0C8		000C8		2048	ST R1,RASPT(,R13)	01750001
000E92 5010 D0C4		000C4		2049	ST R1,RASSTART(,R13)	01751001
000E96 4110 1808		00808		2050	LA R1,2056(,R1)	01752001
000E9A 5010 D0D0		000D0		2051	ST R1,RASPB(,R13)	01753001
000E9E 5010 D0CC		000CC		2052	ST R1,RASEND(,R13)	01754001
000EA2 1BAA				2053	SR CDSA,CDSA	01755001
000EA4 585D 00AC		000AC		2054	L R5,ADSTAB(R13) INITIALIZE DS ENTRIES FOR	01756001
000EA8 5820 5000		00000		2055	L R2,0(,R5) S P K Q	01757001
000EAC 4150 5004		00004		2056	LA R5,4(,R5)	01758001
000EB0 1222				2057	LTR R2,R2 THERE A PUT/GET CONTROL FILE ?	01759001
000EB2 4740 7052		00EC2		2058	BM ALGIN01A	01760001
000EB6 4110 0800		00800		2059	LA R1,2048 YES	01761001
000EBA 5010 2010		00010		2060	ST R1,16(,R2) INSERT BE LENGTH	01762001
000EBE 50A0 2018		00018		2061	ST CDSA,24(,R2) INITIALIZE S, TYP IN PGCF	01763001
000EC2 4120 2000		00000		2062 ALGIN01A	LA R2,0(,R2) CLEAR HIGH ORDER BYTE	01764001
000EC6 1925				2063 ALGIN01	CR R2,R5	01765001
000EC8 4780 706A		00EDA		2064	BE ALGIN02	01766001
000ECC D205 5014	7262	00014		2065	MVC 20(6,R5),DSINIT	01767001
000ED2 4150 5024		00024		2066	LA R5,36(,R5)	01768001
000ED6 47F0 7056		00EC6		2067	B ALGIN01	01769001
				2068 *		01770001
000EDA 40A0 DD5A		00D5A		2069 ALGIN02	STH CDSA,TRPGID INITIALIZE TRACE COUNTERS	01771001
000EDE 50A0 DD5C		00D5C		2070	ST CDSA,TRPGID+2	01772001
000EE2 42A0 DD6C		00D6C		2071	STC CDSA,TRFLAG	01773001
000EE6 92FF DD60		00D60		2072	MVI TRPGID+6,X'FF'	01774001
000EEA 92FF DD61		00D61		2073	MVI TRPGID+7,X'FF'	01775001
000EEE 40AD 00C0		000C0		2074	STH CDSA,SCRC(,R13) INITIALIZE SEMICOLON COUNT	01776001
000EF2 50AD 00B0		000B0		2075	ST CDSA,ANOTTAB(R13) RESET NOTE TABLE ADDR	01777001
000EF6 50A0 DB44		00B44		2076	ST CDSA,SPDAP RESET SPECIAL DECL POINTER	01778001
				2077 *		01779001
				2078 *	EXECUTION TIME OPTIONS AND SET SWITCHES	01780001
				2079 *		01781001
				2080 *	TEST FOR SHORT/LONG PRECISION	01782001
				2081 *		01783001
000EFA 5820 DE54		00E54		2082	L R2,=A(IHIENTIF) GET S/L SWITCH	01784001
000EFE D200 D0C2	2008	000C2	00008	2083	MVC OPTSW(1,R13),8(R2) FROM THE OBJECT MODULE	01785001
000F04 D223 D130	D2FC	00130	002FC	2084	MVC CNVINST(CNVINSTL),CNVINSTE ASSUME SHORT	01786001
000F0A 4120 7268		010D8		2085	LA R2,SETSHORT	01787001
000F0E 9120 D0C2		000C2		2086	TM OPTSW(R13),SHSW	01788001
000F12 4710 70B0		00F20		2087	BO ALGIN4 IF SHORT	01789001
000F16 D223 D130	D320	00130	00320	2088	MVC CNVINST(CNVINSTL),CNVINSTD MODIFY CONVERT ROUTINE	01790001
000F1C 4120 2004		00004		2089	LA R2,4(,R2)	01791001
000F20 9835 D2F0		002F0		2090 ALGIN4	LM R3,R5,FPINSTAD MODIFY FLOATING POINT	01792001
000F24 4402 0000		00000		2091 ALGIN4A	EX 0,0(R2) INSTRUCTIONS	01793001
000F28 8734 70B4		00F24		2092	BXLE R3,R4,ALGIN4A	01794001
				2093 *		01795001
				2094 *	CHECK EXECUTION PARAMETERS DUMP AND TRACE	01796001
				2095 *		01797001
000F2C 96F0 D107		00107		2096 ALGIN0	OI TRACE+7(R13),X'F0'	01798001
000F30 D203 DD5C	DD5B	00D5C	00D5B	2097	MVC TRPGID+2(4),TRPGID+1	01799001
000F36 D207 DD64	DD5A	00D64	00D5A	2098	MVC TRBEG(8),TRPGID	01800001
000F3C 5820 D004		00004		2099	L R2,4(,R13)	01801001
000F40 BF2F 2018		00018		2100	ICM R2,B'1111',24(R2)	01802001
000F44 4780 7206		01076		2101	BZ ALGIN1	01803001
000F48 5820 2000		00000		2102	L R2,0(,R2) BRANCH IF NO PARAMETERS	01804001
000F4C 4120 2000		00000		2103	LA R2,0(,R2) RESET HIGH ORDER BYTE	01805001
000F50 4830 2000		00000		2104	LH R3,0(,R2)	01806001
000F54 1233				2105	LTR R3,R3	01807001
000F56 4780 7206		01076		2106	BZ ALGIN1	01808001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000F5A	1A32			2107	AR	R3,R2	END OF PARAMETER FIELD 01809001
000F5C	4150 729A		0110A	2108	LA	R5, LASTPARM	END OF PARAMETER LIST 01810001
000F60	1B66			2109	SR	R6,R6	01811001
000F62	956B 2002		00002	2110	FNDCOMMA	CLI 2(R2),C', '	01812001
000F66	4770 7108		00F78	2111	BNE	FNDPAR	01813001
000F6A	4120 2001		00001	2112	STEP1	LA R2,1(,R2)	01814001
000F6E	1923			2113	COMP1	CR R2,R3	01815001
000F70	4740 70F2		00F62	2114	BL	FNDCOMMA	01816001
000F74	47F0 71AA		0101A	2115	B	ALGIN2	WHOLE PARM FIELD SCANNED 01817001
				2116	*		01818001
000F78	4140 7270		010E0	2117	FNDPAR	LA R4,PARMLIST	01819001
		R:4 010E0		2118	USING	PARMLIST,R4	01820001
** TXA533W USING range overlaps prior USING at statement 2026.							
** TXA301I Record 1820 in SYSD.ALGOLFRT.ASM(IHIFSA)							
000F7C	4360 4000		010E0	2119	NXTPAR	IC R6,PARMLG	LENGTH OF PARAMETER 01821001
000F80	4460 7146		00FB6	2120	EX	R6,COMPINST	COMPARE WITH ENTRY IN LIST 01822001
000F84	4770 7138		00FA8	2121	BNE	NOTFOUND	01823001
000F88	4112 6001		00001	2122	LA	R1,1(R2,R6)	01824001
000F8C	4400 4006		010E6	2123	EX	0,PABRANCH	01825001
000F90	956B 1002		00002	2124	CHKCOMMA	CLI 2(R1),C', '	CHECK FOR COMMA AFTER PARAM 01826001
000F94	4780 712E		00F9E	2125	BE	SETBIT	01827001
000F98	1913			2126	CR	R1,R3	IF NO COMMA CHECK FOR END OF 01828001
000F9A	4740 70FA		00F6A	2127	BL	STEP1	PARAMETER FIELD 01829001
000F9E	1821			2128	SETBIT	LR R2,R1	01830001
000FA0	4400 400A		010EA	2129	EX	0,PARMSET	01831001
000FA4	47F0 70FE		00F6E	2130	B	COMP1	01832001
				2131	*		01833001
000FA8	1945			2132	NOTFOUND	CR R4,R5	CHECK FOR END OF LIST 01834001
000FAA	4140 400E		0000E	2133	LA	R4,PARLG(,R4)	01835001
000FAE	4740 710C		00F7C	2134	BL	NXTPAR	NEXT ENTRY IN LIST 01836001
000FB2	47FD 0274		00274	2135	B	INVOPT(R13)	OPTION NOT FOUND IN LIST 01837001
				2136	*		01838001
000FB6	D500 2002 4001 00002		010E1	2137	COMPINST	CLC 2(0,R2),PARM	01839001
				2138		DROP R4	01840001
				2139	*		01841001
				2140	*	EVALUATE TRBEG OR TREND PARAMETER	01842001
				2141	*		01843001
000FBC	4180 DD64		00D64	2142	TRLIM1	LA R8,TRBEG	01844001
000FC0	47F0 7158		00FC8	2143	B	TRLIM2A	01845001
				2144	*		01846001
000FC4	4180 DD68		00D68	2145	TRLIM2	LA R8,TREND	01847001
000FC8	957E 1002		00002	2146	TRLIM2A	CLI 2(R1),C'='	01848001
000FCC	477D 0274		00274	2147	BNE	INVLOPT(R13)	01849001
000FD0	4190 1005		00005	2148	LA	R9,5(,R1)	END OF NUMBER FIELD 01850001
000FD4	1BA4			2149	SR	R10,R10	RESET NUMBER ACCUMULATOR 01851001
000FD6	4110 1001		00001	2150	TRLIM4	LA R1,1(,R1)	STEP TO NEXT DIGIT 01852001
000FDA	1913			2151	CR	R1,R3	01853001
000FDC	4780 71A0		01010	2152	BNL	TRLIM3	BR IF END OF WHOLE PARAM FIELD 01854001
000FE0	956B 1002		00002	2153	CLI	2(R1),C', '	01855001
000FE4	4780 71A0		01010	2154	BE	TRLIM3	BR IF END OF THIS PARAMETER 01856001
000FE8	1919			2155	CR	R1,R9	01857001
000FEA	472D 0274		00274	2156	BH	INVLOPT(R13)	BR IF TOO MANY DIGITS 01858001
000FEE	95F0 1002		00002	2157	CLI	2(R1),C'0'	CHECK FOR VALID DIGIT 01859001
000FF2	474D 0274		00274	2158	BL	INVLOPT(R13)	01860001
000FF6	95F9 1002		00002	2159	CLI	2(R1),C'9'	01861001
000FFA	472D 0274		00274	2160	BH	INVLOPT(R13)	01862001
000FFE	D100 71A9 1002 01019		00002	2161	MVN	TRLDIG+1(1),2(R1)	EXTRACT NEW DIGIT 01863001
001004	4CA0 DE6A		00E6A	2162	MH	R10,=H'10'	01864001
001008	4AA0 71A8		01018	2163	AH	R10,TRLDIG	ACCUMULATE SUM 01865001
00100C	47F0 7166		00FD6	2164	B	TRLIM4	01866001
				2165	*		01867001
001010	50A0 8000		00000	2166	TRLIM3	ST R10,0(,R8)	STORE AS TRBEG OR TREND 01868001
001014	47F0 712E		00F9E	2167	B	SETBIT	01869001
				2168	*		01870001
001018	0000			2169	TRLDIG	DC H'0'	TEMP STORAGE FOR DIGIT 01871001
				2170	*		01872001
				2171	*	PREPARE FOR PROGRAM TRACING	01873001
				2172	*		01874001
				2173	ALGIN2	EQU *	01875001
00101A	9140 D0C2		000C2	2174	TM	DTSW(R13),TRSW	TRACE REQUESTED ? 01876001
00101E	4780 7206		01076	2175	BZ	ALGIN1	01877001
				2176	*		01878001
				2177	OPEN	(SYSUT1,(OUTIN))	OPEN SYSUT1 FOR USE BY TRACE 01879001
001022	0700			2178+	CNOP	0,4	ALIGN LIST TO FULLWORD 01-OPEN
001024	4510 71BC		0102C	2179+	BAL	1,*+8	LOAD REG1 W/LIST ADDR. 01-OPEN
001028	87			2180+	DC	AL1(135)	OPTION BYTE 01-OPEN
001029	0014A0			2181+	DC	AL3(SYSUT1)	DCB ADDRESS 01-OPEN
00102C	0A13			2182+	SVC	19	ISSUE OPEN SVC 01-OPEN
				2183	*		01880001
00102E	4130 7630		014A0	2184	LA	R3,SYSUT1	01881001
		R:3 00000		2185	USING	IHADCB,R3	01882001
001032	9110 3030		00030	2186	TM	DCBOFLGS,DCBOFOPN	SYSUT1 OPENED ? 01883001
001036	4710 71D6		01046	2187	BO	ALGIN3	01884001
00103A	948F D0C2		000C2	2188	NI	DTSW(R13),255-TRSW	TRACE SWITCH OFF 01885001
00103E	4160 0011		00011	2189	LA	R6,17	SET DATASET NUMBER TO 17 01886001
001042	47FD 0270		00270	2190	B	DDERROR(R13)	01887001
				2191	*		01888001
001046	940F D107		00107	2192	ALGIN3	NI TRACE+7(R13),X'0F'	ACTIVATE BRANCH TO TRACE ROUT 01889001
00104A	4800 303E		0003E	2193	LH	R0,DCBLKSI	GET BLOCK SIZE FROM DCB 01890001
				2194	DROP	R3	01891001
00104E	5000 760C		0147C	2195	ST	R0,TRBUFL	STORE AS BUFFER LENGTH 01892001
001052	8800 0001		00001	2196	SLA	R0,1	01893001
				2197	*		01894001
				2198	GETMAIN	R,LV=(0)	GET TWO BUFFERS FOR SYSUT1 01895001
				2199+	OS/VS2	RELEASE 4 VERSION -- 10/21/75	01-GETMA 01896001
001056	4510 71EA		0105A	2200+	BAL	1,*+4	INDICATE GETMAIN 01-GETMA 01897001



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Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2297 *			01989001
				2298 *		RETURN IS TO OS OR THE CALLING PROGRAM	01990001
				2299 *		THE COMPLETION CODE IS SET TO ZERO (NORMAL) OR 16	01991001
				2300 *		(ABNORMAL TERMINATION)	01992001
				2301 *			01993001
001118	9210 7617	01487		2302	ALGTRMA	MVI COMPCODE+3,16 ENTRY IN CASE OF ERROR	01994001
00111C	47F0 72B4		01124	2303	B	ALGTRM0	01995001
				2304 *			01996001
				2305 *		NORMAL ENTRY	01997001
				2306 *			01998001
001120	9200 7617	01487		2307	ALGTRMN	MVI COMPCODE+3,0	01999001
001124	18CD			2308	ALGTRM0	LR FSAA,R13 PREPARE FOR	02000001
001126	5850 D0AC		000AC	2309	L	R5,ADSTAB(,R13) OUTPUT TO SYSPRINT	02001001
00112A	4150 5028		00028	2310	LA	R5,DSTABLEL+4(,R5) BY MEANS OF I/O ROUTINES	02002001
00112E	4160 0001		00001	2311	LA	R6,1 SET DSNR TO 1 FOR SYSPRINT	02003001
		R:5	00000	2312	USING	DSTABLE,R5	02004001
001132	9104 7617		01487	2313	TM	COMPCODE+3,X'04'	02005001
001136	4710 72D4		01144	2314	BO	ALGTRM00	02006001
00113A	9601 501B		0001B	2315	OI	DSF+1,DS15 FLAG CLOSE FROM IHIFSA	02007001
00113E	58F0 DE58		00E58	2316	L	R15,=V(IHIIORCP) CLOSE ALL DATASETS USED	02008001
001142	05EF			2317	BALR	R14,R15	02009001
001144	9610 D0C2		000C2	2318	ALGTRM00	OI OPTSW(R13),TERMSW FLAG TERM ROUTINE ENTERED	02010001
001148	9102 D0C2		000C2	2319	TM	OPTSW(R13),PRNTERR	02011001
00114C	4780 72EA		0115A	2320	BZ	ALGTRM16	IF SYSPRINT OK
				2321 *			02013001
				2322	WTO	MF=(E,WTOTRM) WRITE END EXEC MESSAGE	02014001
001150	4110 75BC		0142C	2323+	LA	1,WTOTRM LOAD PARAMETER REG 1	02-THBIN
001154	0A23			2324+	SVC	35 ISSUE SVC	01-WTO
				2325 *			02015001
001156	47F0 74D8		01348	2326	B	ALGTRM10	02016001
				2327 *			02017001
00115A	9610 501B		0001B	2328	ALGTRM16	OI DSF+1,DS11 RE-OPEN SYSPRINT FOR	02018001
00115E	9632 501A		0001A	2329	OI	DSF,DS2+DS3+DS6 TRACE AND TERM OUTPUT	02019001
001162	9104 7617		01487	2330	TM	COMPCODE+3,X'04'	02020001
001166	4710 7304		01174	2331	BO	ALGTRM1A	02021001
00116A	58F0 DE5C		00E5C	2332	L	R15,=V(IHIIOROP)	02022001
00116E	05EF			2333	BALR	R14,R15	02023001
001170	47F0 7308		01178	2334	B	ALGTRM1B	02024001
				2335 *			02025001
001174	9232 5015		00015	2336	ALGTRM1A	MVI S+1,50	02026001
001178	45E0 7504		01374	2337	ALGTRM1B	BAL R14,BLANK	02027001
00117C	9610 501A		0001A	2338	OI	DSF,DS3	02028001
001180	58F0 DE60		00E60	2339	L	R15,=V(IHIIORNX)	02029001
001184	05EF			2340	BALR	R14,R15	02030001
001186	9140 D0C2		000C2	2341	ALGTRM1	TM DTSW(R13),TRSW	02031001
00118A	4780 74A6		01316	2342	BZ	ALGTRM11	NO TRACE OPTION, BRANCH
00118E	9104 D0C2		000C2	2343	TM	OPTSW(R13),UT1ERR	02033001
001192	4710 7480		012F0	2344	BO	ALGTRM18	IF SYSUT1 ERROR
001196	988B 7604		01474	2345	LM	R8,R11,TRBUF	LOAD BUFFER PARAMETERS
00119A	12BB			2346	LTR	R11,R11	02036001
00119C	4780 7394		01204	2347	BZ	ALGTRM2	NO RECORDS WRITTEN, BRANCH
				2348 *			02038001
				2349	CHECK	TRCHECK	CHECK LAST RECORD WRITTEN
0011A0	4110 75F0		01460	2350+	LA	1,TRCHECK	LOAD PARAMETER REG 1
0011A4	58E0 1008		00008	2351+	L	14,8(0,1)	PICK UP DCB ADDR
0011A8	58F0 E034		00034	2352+	L	15,52(0,14)	LOAD CHECK ROUTINE ADDR
0011AC	05EF			2353+	BALR	14,15	LINK TO CHECK ROUTINE
				2354 *			02040001
0011AE	4840 8000		00000	2355	LH	R4,0(,R8)	02041001
0011B2	4940 DE6C		00E6C	2356	CH	R4,='4'	02042001
0011B6	47D0 7374		011E4	2357	BNH	ALGTRM3	CURRENT BUFFER EMPTY, BRANCH
				2358 *			02044001
				2359	WRITE	TRCHECK,SF,,(R8),MF=E	WRITE LAST RECORD
0011BA	4110 75F0		01460	2360+	LA	1,TRCHECK	LOAD DECB ADDRESS
0011BE	9220 1005		00005	2361+	MVI	5(1),X'20'	SET TYPE FIELD
0011C2	5081 000C		0000C	2362+	ST	R8,12(1,0)	STORE AREA ADDRESS
0011C6	58F1 0008		00008	2363+	L	15,8(1,0)	LOAD DCB ADDRESS
0011CA	58F0 F030		00030	2364+	L	15,48(0,15)	LOAD RDWR ROUTINE ADDR
0011CE	05EF			2365+	BALR	14,15	LINK TO RDWR ROUTINE
				2366 *			02046001
				2367	CHECK	TRCHECK	02047001
0011D0	4110 75F0		01460	2368+	LA	1,TRCHECK	LOAD PARAMETER REG 1
0011D4	58E0 1008		00008	2369+	L	14,8(0,1)	PICK UP DCB ADDR
0011D8	58F0 E034		00034	2370+	L	15,52(0,14)	LOAD CHECK ROUTINE ADDR
0011DC	05EF			2371+	BALR	14,15	LINK TO CHECK ROUTINE
				2372 *			02048001
0011DE	41B0 B001		00001	2373	LA	R11,1(,R11)	02049001
				2374 *			02050001
				2375	ALGTRM3	CLOSE (SYSUT1,REREAD),TYPE=T	CLOSE TEMPORARY
0011E2	0700			2376+	CNOP	0,4	ALIGN LIST TO FULLWORD
0011E4	4510 737C		011EC	2377+	BAL	1,*+8	LOAD REG1 W/LIST ADDR
0011E8	90			2378+	DC	AL1(144)	OPTION BYTE
0011E9	0014A0			2379+	DC	AL3(SYSUT1)	DCB ADDRESS
0011EC	0A17			2380+	SVC	23	ISSUE TCLOSE SVC
				2381 *			02052001
				2382	READ	TRCHECK,SF,,(R8),MF=E	READ FIRST RECORD
0011EE	4110 75F0		01460	2383+	LA	1,TRCHECK	LOAD DECB ADDRESS
0011F2	9280 1005		00005	2384+	MVI	5(1),X'80'	SET TYPE FIELD
0011F6	5081 000C		0000C	2385+	ST	R8,12(1,0)	STORE AREA ADDRESS
0011FA	58F1 0008		00008	2386+	L	15,8(1,0)	LOAD DCB ADDRESS
0011FE	58F0 F030		00030	2387+	L	15,48(0,15)	LOAD RDWR ROUTINE ADDR
001202	05EF			2388+	BALR	14,15	LINK TO RDWR ROUTINE
				2389 *			02054001
				2390 *			02055001
				2391 *		PRINT TRACE HEADLINES	02056001
001204	45E0 7534		013A4	2392	ALGTRM2	BAL R14,TRHEAD	02057001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
001208	12BB			2393	ALGTRM4	LTR R11,R11	02058001
00120A	4770 73A4		01214	2394	BNZ	ALGTRM9	02059001
00120E	1898			2395	LR	R9,R8	02060001
001210	47F0 73DE		0124E	2396	B	ALGTRM5	02061001
				2397	*		02062001
				2398	ALGTRM9	CHECK TRCHECK	02063001
001214	4110 75F0		01460	2399+	ALGTRM9	LA 1,TRCHECK	02-IBBIN
001218	58E0 1008		00008	2400+	L	14,8(0,1)	01-CHECK
00121C	58F0 E034		00034	2401+	L	15,52(0,14)	01-CHECK
001220	05EF			2402+	BALR	14,15	01-CHECK
				2403	*		02064001
001222	9889 7604		01474	2404	LM	R8,R9,TRBUF	02065001
001226	1818			2405	LR	R1,R8	02066001
001228	1889			2406	LR	R8,R9	02067001
00122A	1891			2407	LR	R9,R1	02068001
00122C	9089 7604		01474	2408	STM	R8,R9,TRBUF	02069001
001230	46B0 73C8		01238	2409	BCT	R11,ALGTRM6	02070001
001234	47F0 73DE		0124E	2410	B	ALGTRM5	02071001
				2411	*		02072001
				2412	ALGTRM6	READ TRCHECK,SF,,(R8),MF=E	02073001
001238	4110 75F0		01460	2413+	ALGTRM6	LA 1,TRCHECK	02-IBBRD
00123C	9280 1005		00005	2414+	MVI	5(1),X'00'	02-IBBRD
001240	5081 000C		0000C	2415+	ST	R8,12(1,0)	02-IBBRD
001244	58F1 0008		00008	2416+	L	15,8(1,0)	02-IBBRD
001248	58F0 F030		00030	2417+	L	15,48(0,15)	02-IBBRD
00124C	05EF			2418+	BALR	14,15	02-IBBRD
				2419	*		02074001
00124E	4840 9000		00000	2420	ALGTRM5	LH R4,0(0,R9)	02075001
001252	1A49			2421	AR	R4,R9	02076001
001254	4190 9004		00004	2422	LA	R9,4(0,R9)	02077001
001258	5820 5004		00004	2423	L	R2,R	02078001
00125C	47F0 7468		012D8	2424	B	ALGTRM7	02079001
				2425	*		02080001
001260	D501 9000	DD5A 00000	00D5A	2426	ALGTRM8	CLC 0(2,R9),TRPGID	02081001
001266	4770 7408		01278	2427	BNE	ALGTRM12	02082001
00126A	D203 761A	9002 0148A	00002	2428	MVC	PROGID(4),2(R9)	02083001
001270	4190 9006		00006	2429	LA	R9,6(0,R9)	02084001
001274	47F0 7414		01284	2430	B	ALGTRM15	02085001
				2431	*		02086001
001278	4130 2006		00006	2432	ALGTRM12	LA R3,6(,R2)	02087001
00127C	5930 5008		00008	2433	C	R3,RE	02088001
001280	4740 7448		012B8	2434	BL	ALGTRM13	02089001
001284	9610 501A		0001A	2435	ALGTRM15	DSF,DS3	02090001
001288	58F0 DE60		00E60	2436	L	R15,=V(THIIORN)	02091001
00128C	05EF			2437	BALR	R14,R15	02092001
00128E	D501 501A	DE68 00014	00E68	2438	CLC	S(2),=H'1'	02093001
001294	4770 7430		012A0	2439	BNE	ALGTRM14	02094001
001298	45E0 7534		013A4	2440	BAL	R14,TRHEAD	02095001
00129C	47F0 7414		01284	2441	B	ALGTRM15	02096001
				2442	*		02097001
0012A0	5820 5004		00004	2443	ALGTRM14	L R2,R	02098001
0012A4	45E0 7504		01374	2444	BAL	R14,BLANK	02099001
0012A8	D209 2000	7618 00000	01488	2445	MVC	0(10,R2),PIDFIELD	02100001
0012AE	D203 761A	7619 0148A	01489	2446	MVC	PROGID(4),PROGID-1	02101001
0012B4	4120 200A		0000A	2447	LA	R2,PIDLGH(,R2)	02102001
0012B8	4830 9000		00000	2448	ALGTRM13	LH R3,0(,R9)	02103001
0012BC	4190 9002		00002	2449	LA	R9,2(,R9)	02104001
0012C0	4E30 7628		01498	2450	CVD	R3,CONVBUFF	02105001
0012C4	D205 2000	75B5 00000	01425	2451	MVC	0(L'SCPATTN,R2),SCPATTN	02106001
0012CA	DE05 2000	762D 00000	0149D	2452	ED	0(L'SCPATTN,R2),CONVBUFF+5	02107001
0012D0	4120 2006		00006	2453	LA	R2,6(,R2)	02108001
0012D4	5020 5004		00004	2454	ST	R2,R	02109001
0012D8	1994			2455	ALGTRM7	CR R9,R4	02110001
0012DA	4740 73F0		01260	2456	BL	ALGTRM8	02111001
0012DE	12BB			2457	LTR	R11,R11	02112001
0012E0	4770 73A4		01214	2458	BNZ	ALGTRM9	02113001
0012E4	9610 501A		0001A	2459	OI	DSF,DS3	02114001
0012E8	58F0 DE60		00E60	2460	L	R15,=V(THIIORN)	02115001
0012EC	05EF			2461	BALR	R14,R15	02116001
				2462	*		02117001
				2463	*	CLOSE SYSUT1 AND FREE BUFFER AREA	02118001
				2464	*		02119001
				2465	ALGTRM18	CLOSE (SYSUT1)	02120001
0012EE	0700			2466+	CNOP	0,4	01-CLOSE
0012F0	4510 7488		012F8	2467+	ALGTRM18	BAL 1,*+8	01-CLOSE
0012F4	80			2468+	DC	AL1(128)	01-CLOSE
0012F5	0014A0			2469+	DC	AL3(SYSUT1)	01-CLOSE
0012F8	0A14			2470+	SVC	20	01-CLOSE
				2471	*		02121001
0012FA	9889 7604		01474	2472	LM	R8,R9,TRBUF	02122001
0012FE	1818			2473	LR	R1,R8	02123001
001300	1989			2474	CR	R8,R9	02124001
001302	4740 7498		01308	2475	BL	*+6	02125001
001306	1819			2476	LR	R1,R9	02126001
001308	5800 760C		0147C	2477	L	R0,TRBUFL	02127001
00130C	8B00 0001		00001	2478	SLA	R0,1	02128001
				2479	*		02129001
				2480		FREEMAIN R,LV=(0),A=(1)	02130001
				2481+	*	OS/VS2 RELEASE 3 VERSION -- 10/25/74	01-FREEM
001310	4110 1000		00000	2482+	LA	1,0(0,1)	01-FREEM
001314	0A0A			2483+	SVC	10	01-FREEM
				2484	*		02131001
				2485	*	PRINT EXECUTION END MESSAGE	02132001
				2486	*		02133001
001316	5820 5004		00004	2487	ALGTRM11	L R2,R	02134001
00131A	D21D 2000	75C0 00000	01430	2488	MVC	0(TML,R2),TRMSG	02135001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
001320	4120 201E		0001E	2489	LA	R2, TML(,R2)	02136001
001324	5020 5004		00004	2490	ST	R2, R	02137001
001328	4120 0002		00002	2491	LA	R2, 2	02138001
00132C	45E0 7504		01374	2492	ALGTRM19	BAL R14, BLANK	02139001
001330	9610 501A	0001A		2493	OI	DSF, DS3	02140001
001334	58F0 DE60		00E60	2494	L	R15, =V(THIIORNX)	02141001
001338	05EF			2495	BALR	R14, R15	02142001
00133A	4620 74BC		0132C	2496	BCT	R2, ALGTRM19	02143001
00133E	9601 501B	0001B		2497	OI	DSF+1, DS15	02144001
001342	58F0 DE64		00E64	2498	L	R15, =V(THIIORCL)	02145001
001346	05EF			2499	BALR	R14, R15	02146001
				2500	*		02147001
				2501	*	FINAL CLEAN-UP	02148001
				2502	*		02149001
001348	581D 00C4		000C4	2503	ALGTRM10	L R1, RASSTART(R13)	02150001
00134C	4110 1008		00008	2504	LA	R1, 8(,R1)	02151001
				2505	*		02152001
				2506		FREEMAIN R, LV=2048, A=(1)	02153001
				2507+	*	OS/VS2 RELEASE 3 VERSION -- 10/25/74	01-FREEM
001350	4100 0800		00800	2508+	LA	0, 2048(0, 0)	01-FREEM
001354	4110 1000		00000	2509+	LA	1, 0(0, 1)	01-FREEM
001358	0A0A			2510+	SVC	10	01-FREEM
				2511	*		02154001
00135A	5820 D0BC		000BC	2512	ALGTRM17	L R2, FSAPICA(,R13)	02155001
				2513	*		02156001
				2514		SPIE MF=(E, (R2))	02157001
00135E	1812			2515+	LR	1, R2	02-IBBIN
001360	0A0E			2516+	SVC	14	01-SPIE
				2517	*		02158001
001362	58D0 D004		00004	2518	ALGTRMAA	L R13, 4(, R13)	02159001
001366	58F0 7614		01484	2519	L	R15, COMPCODE	02160001
				2520	*		02161001
				2521		RETURN (14, 12), RC=(15)	02162001
00136A	58ED 000C		0000C	2522+	L	14, 12(13, 0)	01-RETUR
00136E	980C D014		00014	2523+	LM	0, 12, 20(13)	01-RETUR
001372	07FE			2524+	BR	14	01-RETUR
				2525	*		02163001
				2526	*	ROUTINE FOR FILLING A SYSPRINT RECORD WITH BLANKS	02164001
				2527	*		02165001
001374	9023 752C		0139C	2528	BLANK	STM R2, R3, BLANKS	02166001
001378	5820 5004		00004	2529	L	R2, R	02167001
00137C	5830 5008		00008	2530	L	R3, RE	02168001
001380	1923			2531	BLANKA	CR R2, R3	02169001
001382	47B0 7522		01392	2532	BNL	BLANKB	02170001
001386	9240 2000	00000		2533	MVI	0(R2), C' '	02171001
00138A	4120 2001		00001	2534	LA	R2, 1(, R2)	02172001
00138E	47F0 7510		01380	2535	B	BLANKA	02173001
				2536	*		02174001
001392	5020 5004		00004	2537	BLANKB	ST R2, R	02175001
001396	9823 752C		0139C	2538	LM	R2, R3, BLANKS	02176001
00139A	07FE			2539	BR	R14	02177001
				2540	*		02178001
00139C	0000000000000000			2541	BLANKS	DC 2F'0'	02179001
				2542	*		02180001
				2543	*	ROUTINE FOR PRINTING TRACE OUTPUT HEADING	02181001
				2544	*		02182001
0013A4	90EC D054		00054	2545	TRHEAD	STM R14, R12, ASAVE+12(R13)	02183001
0013A8	9824 7560		013D0	2546	LM	R2, R4, TRHADR	02184001
0013AC	5810 5004		00004	2547	TRHEAD1	L R1, R	02185001
0013B0	45E0 7504		01374	2548	BAL	R14, BLANK	02186001
0013B4	4404 0000		00000	2549	EX	0, 0(R4)	02187001
0013B8	9610 501A	0001A		2550	OI	DSF, DS3	02188001
0013BC	58F0 DE60		00E60	2551	L	R15, =V(THIIORNX)	02189001
0013C0	05EF			2552	BALR	R14, R15	02190001
0013C2	8742 753C		013AC	2553	BXLE	R4, R2, TRHEAD1	02191001
0013C6	45E0 7504		01374	2554	BAL	R14, BLANK	02192001
0013CA	98EC D054		00054	2555	LM	R14, R12, ASAVE+12(R13)	02193001
0013CE	07FE			2556	BR	R14	02194001
				2557	*		02195001
0013D0	0000006000013EE			2558	TRHADR	DC A(6, TRHEND, TRHLIST)	02196001
				2559	*		02197001
0013DC	4700 0000		00000	2560	TRHLIST	NOP 0	02198001
0013E0	0700			2561	NOPR	0	02199001
0013E2	D214 1000 7584 00000	013F4		2562	MVC	0(L' TRHEADA, R1), TRHEADA	02200001
0013E8	4700 0000		00000	2563	NOP	0	02201001
0013EC	0700			2564	NOPR	0	02202001
0013EE	D21B 1000 7599 00000	01409		2565	TRHEND	MVC 0(L' TRHEADB, R1), TRHEADB	02203001
				2566	*		02204001
0013F4	4040C1D3C7D6D340			2567	TRHEADA	DC C' ALGOL PROGRAM TRACE'	02205001
				2568	*		02206001
001409	D4D6C4E4D3C54040			2569	TRHEADB	DC C'MODULE SEMICOLON NUMBERS'	02207001
				2570	*		02208001
001425	402020202020			2571	SCPATTN	DC X'402020202020'	02209001
				2572	*		02210001
				2573	WTOTRM	WTO 'END OF ALGOL PROGRAM EXECUTION', ROUTCDE=11, DESC=7, MF=L	02211001
00142C				2574+WTOTRM	DS	0F	01-WTO
00142C	0022			2575+	DC	AL2(34)	01-WTO
00142E	8000			2576+	DC	B'1000000000000000' MCS_FLAGS	01-WTO
001430	C5D5C440D6C640C1			2577+	DC	C'END OF ALGOL PROGRAM EXECUTION'	01-WTO
00144E	0200			2578+	DC	B'0000001000000000' DESCRIPTOR CODES	01-WTO
001450	0020			2579+	DC	B'0000000000100000' ROUTING CODES	01-WTO
				2580	*		02212001
		01430		2581	TRMSG	EQU WTOTRM+4	02213001
		0001E		2582	TML	EQU *-TRMSG-4	02214001
				2583	*		02215001
				2584	*	ERROR AND END OF DATA ROUTINE FOR SYSUT1	02216001

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2585 *			02217001
001452 9604 D0C2		000C2		2586 ENDUT1	OI	OPTSW(R13),UT1ERR	02218001
001456 4160 0011			00011	2587	LA	R6,17	02219001
00145A 47F0 D24C			0024C	2588	B	ERROR32	02220001
				2589 *			02221001
				2590 *		PARAMETER LIST USED BY BOTH READ AND WRITE MACROS FOR	02222001
				2591 *		SYSUT1	02223001
				2592 *			02224001
				2593		WRITE TRCHECK,SF,SYSUT1,MF=L	02225001
00145E 0000							
001460 00000000				2594+TRCHECK	DC	F'0'	02-IHBRD
001464 00				2595+	DC	X'00'	02-IHBRD
001465 20				2596+	DC	X'20'	02-IHBRD
001466 0000				2597+	DC	AL2(0)	02-IHBRD
001468 000014A0				2598+	DC	A(SYSUT1)	02-IHBRD
00146C 00000000				2599+	DC	A(0)	02-IHBRD
001470 00000000				2600+	DC	A(0)	02-IHBRD
				2601 *			02226001
				2602 *		PARAMETERS FOR TRACE BUFFER	02227001
				2603 *			02228001
001474 00000000				2604 TRBUF	DC	F'0'	02229001
001478 00000000				2605 TRBUFA	DC	F'0'	02230001
00147C 00000000				2606 TRBUFL	DC	F'0'	02231001
001480 00000000				2607 TRCNT	DC	F'0'	02232001
				2608 *			02233001
				2609 *		THE BYTE POINTER IS CONTAINED IN THE FIRST TWO BYTES OF	02234001
				2610 *		THE RECORD AND SERVES AS RECORD LENGTH FIELD	02235001
				2611 *			02236001
001484 00000000				2612 COMPCODE	DC	F'0'	02237001
				2613 *		COMPLETION CODE (0 OR 16)	02238001
				2614 *		WORK STORAGE FOR EDITING THE TRACE LISTING	02239001
				2615 *			02240001
001488 4040				2616 PIDFIELD	DC	CL2' '	02241001
00148A 40404040				2617 PROGID	DC	CL4' '	02242001
00148E 40404040				2618	DC	CL4' '	02243001
		0000A		2619 PIDLGTH	EQU	*-PIDFIELD	02244001
001492 000000000000							
001498 0000000000000000				2620 CONVBUF	DC	D'0'	02245001
				2621 *		FOR CONVERTING SEMICOLON NUMBER	02246001
				2622 *		DCB FOR SYSUT1	02247001
				2623 *			02248001
				2624 SYSUT1	DCB	DSORG=PS,MACRF=(R,W),DDNAME=SYSUT1,RECFM=F, EODAD=ENDUT1,EXLST=EXLUT1,SYNAD=ENDUT1	X02249001 02250001
				2626+*		DATA CONTROL BLOCK	01-DCB
				2627+*			01-DCB
0014A0				2628+SYSUT1	DC	0F'0'	01-DCB
				2630+*		DIRECT ACCESS DEVICE INTERFACE	01-DCB
0014A0 0000000000000000				2632+	DC	BL16'0'	01-DCB
0014B0 00000000				2633+	DC	A(0)	01-DCB
				2635+*		COMMON ACCESS METHOD INTERFACE	01-DCB
0014B4 00				2637+	DC	AL1(0)	01-DCB
0014B5 000001				2638+	DC	AL3(1)	01-DCB
0014B8 0000				2639+	DC	AL2(0)	01-DCB
0014BA 4000				2640+	DC	BL2'0100000000000000'	01-DCB
0014BC 00000001				2641+	DC	A(1)	01-DCB
						IOBAD	
						DSORG	
				2643+*		FOUNDATION EXTENSION	01-DCB
0014C0 00				2645+	DC	BL1'00000000'	01-DCB
0014C1 001452				2646+	DC	AL3 (ENDUT1)	01-DCB
0014C4 80				2647+	DC	BL1'10000000'	01-DCB
0014C5 0014F8				2648+	DC	AL3 (EXLUT1)	01-DCB
						EODAD	
						RECFM	
						EXLST	
				2650+*		FOUNDATION BLOCK	01-DCB
0014C8 E2E8E2E4E3F14040				2652+	DC	CL8'SYSUT1'	01-DCB
0014D0 02				2653+	DC	BL1'00000010'	01-DCB
0014D1 00				2654+	DC	BL1'00000000'	01-DCB
0014D2 2020				2655+	DC	BL2'0010000000100000'	01-DCB
						MACR	
				2657+*		BSAM-BPAM-QSAM INTERFACE	01-DCB
0014D4 00				2659+	DC	BL1'00000000'	RER1 01-DCB
0014D5 000001				2660+	DC	AL3(1)	01-DCB
0014D8 00001452				2661+	DC	A(ENDUT1)	01-DCB
0014DC 0000				2662+	DC	H'0'	01-DCB
0014DE 0000				2663+	DC	AL2(0)	01-DCB
0014E0 00000000				2664+	DC	F'0'	01-DCB
0014E4 00000001				2665+	DC	A(1)	01-DCB
0014E8 00				2666+	DC	AL1(0)	01-DCB
0014E9 000001				2667+	DC	AL3(1)	01-DCB
						IOBA	
						NCP	
						EOBR, EOBA	
				2669+*		BSAM-BPAM INTERFACE	01-DCB
0014EC 00000001				2671+	DC	A(1)	01-DCB
0014F0 0000				2672+	DC	H'0'	01-DCB
0014F2 0000				2673+	DC	AL2(0)	01-DCB
0014F4 00000001				2674+	DC	A(1)	01-DCB
				2675 *		CNTRL, NOTE, POINT	02251001
0014F8 850010A6				2676 EXLUT1	DC	X'85',AL3(SYSUT1X)	02252001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2677 *			02253001
				2678 *	LTORG		02254001
				2679 *			02255001
				2680 *			02256001
				2681 *	DATASET TABLE ENTRY		02257001
				2682 *			02258001
				2683	DSTABLE DSECT=YES		02259001
000000		00000	00024	2684+DSTABLE	DSECT		01-DSTAB
				2685+*			01-DSTAB
000000	00000000			2686+ADCB	DC F'0'	-> DCB	01-DSTAB
000004	00000000			2687+R	DC F'0'	CHARACTER POINTER	01-DSTAB
000008	00000000			2688+RE	DC F'0'		01-DSTAB
00000C	00000000			2689+NBB	DC F'0'		01-DSTAB
000010	00000000			2690+BB	DC F'0'		01-DSTAB
000014	0001			2691+S	DC H'1'	RECORD POINTER	01-DSTAB
000016	0050			2692+P	DC H'80'	RECORD LENGTH	01-DSTAB
000018	02			2693+K	DC X'02'	NUMBER OF BLANK DELIM CHARS	01-DSTAB
000019	00			2694+Q	DC X'00'	NO OF RECORDS PER SECTION	01-DSTAB
00001A	0000			2695+DSF	DC H'00'	DATASET FLAGS	01-DSTAB
				2696+*			01-DSTAB
				2697+*	DATASET FLAGS - DSF		01-DSTAB
				2698+*			01-DSTAB
		00080		2699+DS0	EQU X'80'	DATASET OPEN	01-DSTAB
		00040		2700+DS1	EQU X'40'		01-DSTAB
		00020		2701+DS2	EQU X'20'	LAST I/O OUTPUT	01-DSTAB
		00010		2702+DS3	EQU X'10'		01-DSTAB
		00008		2703+DS4	EQU X'08'		01-DSTAB
		00004		2704+DS5	EQU X'04'		01-DSTAB
		00002		2705+DS6	EQU X'02'	OPEN FOR OUTPUT	01-DSTAB
		00001		2706+DS7	EQU X'01'	END OF FILE	01-DSTAB
				2707+*			01-DSTAB
				2708+*	DATASET FLAGS - DSF+1		01-DSTAB
				2709+*			01-DSTAB
		00080		2710+DS8	EQU X'80'	END OF DATA	01-DSTAB
		00040		2711+DS9	EQU X'40'		01-DSTAB
		00020		2712+DS10	EQU X'20'	OPENED BY SYSACT 12	01-DSTAB
		00010		2713+DS11	EQU X'10'	INDICATE IHIERR-ROUT	01-DSTAB
		00008		2714+DSEOD	EQU X'08'		01-DSTAB
		00004		2715+DSIOERR	EQU X'04'	I/O ERROR	01-DSTAB
		00002		2716+DS14	EQU X'02'	DATASET OPENED	01-DSTAB
		00001		2717+DS15	EQU X'01'	CLOSE FROM IHIERR	01-DSTAB
				2718+*			01-DSTAB
00001C	00000000			2719+NOTEADR	DC F'0'		01-DSTAB
000020	0000			2720+BL	DC H'0'	LRECL+ TWO ARB	01-DSTAB
000022	0000			2721+	DC H'0'		01-DSTAB
				2722+*			01-DSTAB
		00024		2723+DSTABLE	EQU *-DSTABLE	L'DSTABLE ENTRY	01-DSTAB
				2724+*			01-DSTAB
				2725 *			02260001
				2726	PRINT NOGEN		02261001
				2727 *			02262001
				2728	DCBD DSORG=(BS),DEV=(DA,TA)		02263001
				3261 *			02264001
				3262	PRINT GEN		02265001
				3263 *			02266001
				3264 *	REGISTER EQUATES		02267001
				3265 *			02268001
				3266	IEZREGS		02269001
		00000		3267+R0	EQU 0		01-IEZRE
		00001		3268+R1	EQU 1		01-IEZRE
		00002		3269+R2	EQU 2		01-IEZRE
		00003		3270+R3	EQU 3		01-IEZRE
		00004		3271+R4	EQU 4		01-IEZRE
		00005		3272+R5	EQU 5		01-IEZRE
		00006		3273+R6	EQU 6		01-IEZRE
		00007		3274+R7	EQU 7		01-IEZRE
		00008		3275+R8	EQU 8		01-IEZRE
		00009		3276+R9	EQU 9		01-IEZRE
		0000A		3277+R10	EQU 10		01-IEZRE
		0000B		3278+R11	EQU 11		01-IEZRE
		0000C		3279+R12	EQU 12		01-IEZRE
		0000D		3280+R13	EQU 13		01-IEZRE
		0000E		3281+R14	EQU 14		01-IEZRE
		0000F		3282+R15	EQU 15		01-IEZRE
				3283 *			02270001
				3284	END		02271001
000E3C	00000000						
000E40	000001D0			3285	=A(IHIFSAER+4)		
000E44	00000E70			3286	=A(IHIFSARB)		
000E48	00000003			3287	=F'3'		
000E4C	000000FC			3288	=X'000000FC'		
000E50	00000000			3289	=A(IHIFSARA)		
000E54	00000000			3290	=A(IHIENTIF)		
000E58	00000000			3291	=V(IHIORCP)		
000E5C	00000000			3292	=V(IHIOROP)		
000E60	00000000			3293	=V(IHIORNK)		
000E64	00000000			3294	=V(IHIORCL)		
000E68	0001			3295	=H'1'		
000E6A	000A			3296	=H'10'		
000E6C	0004			3297	=H'4'		

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21
=A(IHIENTIF)												
	4	00000E54	00000001	A	A		3290	2082 2214				
=A(IHIFSAER+4)												
	4	00000E40	00000001	A	A		3285	609				
=A(IHIFSARA)												
	4	00000E50	00000001	A	A		3289	1937 2000				
=A(IHIFSARB)												
	4	00000E44	00000001	A	A		3286	636 643 648 1820 2004				
=F'3'	4	00000E48	00000001	F	F		3287	1445				
=H'1'	2	00000E68	00000001	H	H		3295	1508	2438			
=H'10'	2	00000E6A	00000001	H	H		3296	2162				
=H'4'	2	00000E6C	00000001	H	H		3297	2356				
=V(IHIIORCL)												
	4	00000E64	00000001	V	V		3294	2498				
=V(IHIIORCP)												
	4	00000E58	00000001	V	V		3291	2316				
=V(IHIIORNX)												
	4	00000E60	00000001	V	V		3293	2339 2436 2460 2494 2551				
=V(IHIIOROP)												
	4	00000E5C	00000001	V	V		3292	2332				
=X'000000FC'												
	4	00000E4C	00000001	X	X		3288	1527				
ADRLST	4	00000DD8	00000001	A	A		1974	530				
ADRSAVE	4	00000814	00000001	F	F		1242	1060M 1170				
ADSTAB	1	000000AC		U			319	494 2054 2309				
ALGIN	4	00000E70	0000000F	I			2030	2006B				
ALGIN01	2	00000EC6	0000000F	I			2063	2067B				
ALGIN01A	4	00000EC2	0000000F	I			2062	2058B				
ALGIN02	4	00000EDA	0000000F	I			2069	2064B				
ALGIN1	2	00001076	0000000F	I			2213	2101B 2106B 2175B				
ALGIN2	1	0000101A	0000000F	U			2173	2115B				
ALGIN3	4	00001046	0000000F	I			2192	2187B				
ALGIN4	4	00000F20	0000000F	I			2090	2087B				
ALGIN4A	4	00000F24	0000000F	I			2091	2092B				
ALGTRMA	4	00001118	0000000F	I			2302	639B				
ALGTRMAA	4	00001362	0000000F	I			2518	638B 644B				
ALGTRMN	4	00001120	0000000F	I			2307	649B				
ALGTRM0	2	00001124	0000000F	I			2308	2303B				
ALGTRM00	4	00001144	0000000F	I			2318	2314B				
ALGTRM1A	4	00001174	0000000F	I			2336	2331B				
ALGTRM1B	4	00001178	0000000F	I			2337	2334B				
ALGTRM10	4	00001348	0000000F	I			2503	2326B				
ALGTRM11	4	00001316	0000000F	I			2487	2342B				
ALGTRM12	4	00001278	0000000F	I			2432	2427B				
ALGTRM13	4	00001288	0000000F	I			2448	2434B				
ALGTRM14	4	000012A0	0000000F	I								

	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21
CNVVDI	1	0000014C			U		459	1113B				
CODEPRM	1	00000010			U		242	869				
COMP CODE	4	00001484	0000000F	F	F		2612	2302M	2307M	2313	2330	2519
COMP INST	6	00000FB6	0000000F	I			2137	2120X				
COMP1	2	00000F6E	0000000F	I			2113	2130B				
CONVBUF	8	00001498	0000000F	D	D		2620	2450M	2452			
CONVFL	1	00000826	00000001	X	X		1249	1058M	1084M	1091M	1099	1128
CSIZCOPY	2	00000824	00000001	H	H		1248	1092M	1133	1150M	1158	1218
CSIZORIG	2	00000822	00000001	H	H		1247	1066M	1069M	1074M	1092	1217
CSWEI1	4	00000B60	00000001	I			1672	1689B				
CSWEI2	4	00000B86	00000001	I			1684	1679B				
CSWEI3	4	00000BA2	00000001	I			1701	1710B				
CSWE1A	2	00000B4A	00000001	I			1666	514B				
CSWE2A	4	00000B9E	00000001	I			1700	515B				
DCBBIT0	1	00000080			U		2750	2862	2870	2882	2905	2932
								2983	2987	3002	3039	3094
								2863	2871	2884	2906	2907
								2965	2983	2985	2987	3005
								3120	3163	3165	3177	3221
DCBBIT1	1	00000040			U		2751	2864	2872	2885	2886	2887
								2933	2938	2967	2988	2989
								3095	3125	3166	3182	3224
DCBBIT2	1	00000020			U		2752	2864	2872	2885	2886	2887
								2933	2938	2967	2988	2989
								3095	3125	3166	3182	3224
DCBBIT3	1	00000010			U		2753	2865	2885	2887	2888	2906
								3014	3015	3016	3050	3051
								3183	3224	3228		
DCBBIT4	1	00000008			U		2754	2873	2920	2940	2971	2993
								3055	3057	3058	3096	3135
DCBBIT5	1	00000004			U		2755	2874	2921	2943	2944	2973
								3025	3026	3027	3061	3062
								3170	3186	3219		
DCBBIT6	1	00000002			U		2756	2866	2922	2923	2926	2943
								3033	3067	3068	3069	3070
DCBBIT7	1	00000001			U		2757	2867	2922	2924	2926	2947
								3076	3077	3146	3172	3189
DCBBLKSI	2	0000003E	FFFFFFFF	H	H		3191	2193	2229	2233M		
DCBEXIT1	4	000010BA	0000000F	I			2239	2231B				
DCBEXIT2	4	000010B0	0000000F	I			2232	2240B	2242B			
DCBEXIT3	2	000010B8	0000000F	H	H		2236	2243B				
DCBFDAD	8	00000005	FFFFFFFF	C	C		2777	2780				
DCBOFLGS	1	00000030	FFFFFFFF	B	B		2959	2186				
DCBOFOPN	1	00000010			U							

FSA													Symbol Cross Reference										PAGE		33
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References					X390	3.1.04	2012/08/17	13.21									
FSAREA	1	00000000	00000001	U			289	294	299	301	302	303	306	313	315	319	321								
								325	327	329	331	334	341	343	345	347	353								
								355	357	360	362	364	366	368	370	372	374								
								376	380	382	384	387	389	438U	440	454	459								
								494	549	569	573	574	590	594	600	602	1416								
F4	4	000005E4	00000001	I			1017	899B																	
GDSA	1	00000009		U			212	1278	1678																
GETMAIN	2	00000344	00000001	I			725	525B																	
GETMSTO	1	00000114		U			384	1166B																	
HW	1	0000009C		U			304	1545M	1546																
IHADCB	1	00000000	FFFFFFFFD	J			2733	2185U	2228U	2818	2844	2891	2956	3085	3100	3113	3209								
								3215	3242																
IHB0001B	4	00000298	00000001	V	V		618	629																	
IHB0002A	1	000002B4	00000001	U			628	620B																	
IHIDSTAB	1	00000000	00000002	T			264	495																	
IHIENTIF	1	00000000	00000003	T			265	3290																	
IHIERROR	1	00000000	0000000E	T			618	618																	
IHIFSAER	4	000001CC	00000001	I			551	3285																	
IHIFSAIN	4	00000DFC	00000001	I			1994	262	1991U																
IHIFSARA	1	00000000	00000001	J			207	504U	1642	2025U	3289														
IHIFSARB	1	00000E70	0000000F	J			2011	632U	1821U	2005U	2026U	3286													
IHIIORCI	1	00000000	00000007	T			266	1974																	
IHIIORCL	1	00000000	00000005	T			266	1975	3294																
IHIIORCP	1	00000000	0000000C	T			267	625	3291																
IHIIOREN	1	00000000	0000000A	T			267	1980																	
IHIIOREER	1	00000000	0000000D	T			267	1982																	
IHIIOREV	1	00000000	00000008	T			266	1976																	
IHIIORGP	1	00000000	0000000B	T			267	1981																	
IHIIORNX	1	00000000	00000006	T			266	627	1977	3293															
IHIIOROP	1	00000000	00000004	T			266	624	1978	3292															
IHIIROQO	1	00000000	00000009	T			267	1979																	
INTTST	4	0000056C	00000001	I			972	967B																	
INVOPT	1	00000274		U			602	2135B	2147B	2156B	2158B	2160B													
LABEL1	4	00000176	00000001	I			471	468B																	
LASTPARM	1	0000110A	0000000F	R	A		2277	2108																	
LAT	1	0000000C		U			215	783M	803M	850M	888	1023M	1384M	1441	1484M	1620M	1688M								
								1709M	2215M																
LBLTST	4	0000051C	00000001	I			948	924B																	
LINSTR	4	000002E2	00000001	I			669	1558X	1581X																
LOADPPA	4	00000BC6	00000001	I			1733	516B																	
LOADPP1	4	00000C04	00000001	I			1752	1736B																	
LOADPP2	2	00000BCE	00000001	I			1735	1739B																	
LOADPP3	2	00000BEE	00000001	I			1743	1745B	1746B																
LOADPP4	4	00000C38	00000001	I			1771	1748B																	
LOOP	4	000004B0	00000001	I			917	911B	1016B																
LPRINSTR	2	000002EE	00000001	I			674	1587X																	
LTRINSTR	2	000002EA	00000001	I			671	1559X																	
MASKFF	4	00000608	00000001	X	X		1032	995																	
NOMAIN	1	00000214		U			569	739B																	
NOTFOUND	2	00000FA8	0000000F	I			2132	2121B																	
NXTPAR	4	00000F7C	0000000F	I			2119	2134B																	
OERR20	1	0000021C		U			573	930B	935B	939B	942B	949B	951B	955B	959B	963B	969B								
								973B	1012B																
OERR21	1	00000220		U			402	856B	868B	901B	1027B														
OPTSW	1	000000C2		U			332	611	613M	637	1072	1126	1830	2083M	2086	2318M	2319								
								2343	2586M																
ORI	6	000005AE	00000001	I			999	992M																	
PABRANCH	4	000010E6	0000000F	I			2263	2123X																	
PARAMPR	4	000005B4	00000001	I			1005	965B	983B	985B	987B														
PARAMS	8	00000030	FFFFFFFF	D	D		1639	1454																	
PARERR	1	0000021C		U			574	1462B	1467B	1469B	1471B														
PARLG	1	0000000E		U			2266	2133																	
PARLIST	4	00000020	FFFFFFFF	F	F		1638	1453	1523																
PARM	5	000010E1	0000000F	C	C		2261	2137																	
PARMLG	1	000010E0	0000000F	R	A		2260	2119	2266																
PARMLIST	2	000010E0	0000000F	H	H		2259	2117	2118U																
PARMSET	4	000010EA	0000000F	I			2265	2129X																	
PBNENTRY	4	0000083E	00000001	I			1275	1271B																	
PBT	1	0000000B		U			214	772	777M	779	780	783M	803M	807	850M	863	880								
								886	888	1023M	1024	1381	1382	1384M	1484M	1620M	1686								
								1688M	1708	1709M	1772	1822	2215M	2221											
PGCMASK	4	00000D94	00000001	X	X		1949	1940																	
PGOPSW	1	000000B4		U			325	1938M	1939																
PHIMOVE	6	000004A2	00000001	I			914	915X																	
PIDFIELD	2	00001488	0000000F	C	C		2616	2445	2619																
PIDLGTH	1	0000000A		U			2619	2447																	
PIEROUT	4	00000D72	00000001	I			1937	1936U	2032																
PIETAB	4	00000D98	00000001	A	A		1951	1942																	
PIMASK	1	00000004		U			243	908																	
PIMOVE	6	0000049C	00000001	I			913	910X																	
PPTRSW	1	00000001		U			258	1830																	
PRID	4	0000001C	FFFFFFFF	F	F		1637	1440M	1501	1506	1524	1526	1529	1537	1539	1582	1590								
PRNTERR	1	00000002		U			256	2319																	
PROGID	4	0000148A	0000000F	C	C		2617	2428M	2446M																
PROL	4	000003E8	00000001	I			852	509B																	
PROLOG	1	000000E0		U			360	1030B																	
PROLOGP	1	000000DC		U			357	358																	
PROLOG1	4	00000414	00000001	I			871	865B																	
PROLOG2	4	000005EA	00000001	I			1022	870B																	
PROLOG3	4	000004A8	00000001	I			915	909B																	
PROLP	4	000003E0	00000001	I			845	508B																	
PROLPBN	1	000000A9		U			313	845M	852	1029M															
PROLREG	1	000000A																							

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Symbol	Length	Value	Id	Type	Asm	Program	Defn	References						X390	3.1.04	2012/08/17	13.21			
RASOVR	1	0000025C		U			594	775B 892B 1481B 1674B 1757B												
RASPARMM	1	00000000		U			245	1270												
RASPB	1	000000D0		U			347	774 891 1322 1325M 1480 1673 1741 1753 1758M 2051M												
RASPT	1	000000C8		U			343	769 784M 801 810M 889 895M 1269 1280M 1305 1317												
								1319M 1478 1482M 1671 1680M 1700 1703M 1740 1752 1759M												
								2048M												
RASSTART	1	000000C4		U			341	2049M 2503												
RE	4	00000008	FFFFFFFE	F	F		2688	2433 2530												
RETPROGA	2	00000828	00000001	I			1268	510B												
RETPR1	4	0000082E	00000001	I			1270	1273B												
R0	1	00000000		U			3267	725 871M 880M 881 1323M 1335M 1339M 1349M 1367M 1382M												
								1442M 1443 1445M 1447M 1448 1508 1518M 1546M 1547M 1548M												
								1549 1555M 1562M 1564M 1566M 1567 1747M 1761M 1770 1772												
								1865M 1866M 1867 1886M 1888 2193M 2195 2196M 2204M 2205												
								2206M 2207 2477M 2478M												
R1	1	00000001		U			3268	551M 552M 553M 554M 555M 556M 557M 558M 559M 560M												
								561M 562M 563M 564M 565M 566M 567M 568M 570M 571M												
								575M 576M 577M 578M 579M 580M 581M 582M 583M 584M												
								585M 586M 587M 588M 591M 592M 595M 596M 597M 598M												
								599M 601M 603M 604M 608M 609M 610 666 740M 771M												
								772M 780 806M 807 881 882 883 884 885 886												
								887 907M 916M 990 999 1015M 1022M 1023 1028 1061M												
								1062 1096M 1097 1105 1133M 1140M 1147M 1150 1171 1175												
								1179 1181 1183 1185 1188 1192 1204 1212 1213M 1217M												
								1230M 1237 1275M 1279 1322M 1323 1324M 1325 1338M 1339												
								1340 1345 1366M 1378M 1436 1437 1438 1453M 1455 1456												
								1472 1499 1500 1512 1514M 1523M 1544M 1545 1554 1556												
								1572 1573 1578 1607M 1608 1684M 1686 1707M 1708 1822M												
								1828 1861 1863 1895M 1896M 1897 1900M 1901M 1902 1938												
								1943 2036 2047M 2048 2049 2050M 2051 2052 2059M 2060												
								2122M 2124 2126 2128 2146 2148 2150M 2151 2153 2155												
								2157 2159 2161 2203 2207 2208M 2209 2228U 2245D 2405M												
								2407 2473M 2476M 2503M 2504M 2547M 2562 2565												
R10	1	0000000A		U			3277	1867 2149M 2162M 2163M 2166												
R11	1	0000000B		U			3278	1824M 1869M 1890M 1905 2345M 2346M 2373M 2393M 2409M 2457M												
R12																				

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.21
								2194D 2254 2255 2432M 2433 2448M 2450 2528 2530M 2531 2538M			
R4	1	00000004		U			3271	872M 879 904M 1016M 1224M 1226 1228 1229 1441M 1476 1494M 1528 1733M 1735 1737 1738M 1741M 1742M 1746M 1753M 1755M 1756 1758 1760 1761 1825M 1866 1889M 1896 1898M 1901 1903M 1904 2092 2117M 2118U 2132 2133M 2138D 2355M 2356 2420M 2421M 2455 2546M 2549 2553M			
R5	1	00000005		U			3272	1098M 1100B 1108B 1115B 1216M 1438M 1439U 1493M 1607 1623D 1836M 1839 1841 1845 1850 2054M 2055 2056M 2063 2065 2066M 2090M 2108M 2132 2309M 2310M 2312U			
R6	1	00000006		U			3273	1823M 1837 1839 1850 2109M 2119M 2120 2122 2189M 2311M 2587M			
R7	1	00000007		U			3274	632U 636M 643M 648M 651D 1823M 1837 1841 1845 2004M 2005U 2009D 2026U			
R8	1	00000008		U			3275	449B 476B 477B 688B 699B 741B 785B 866 917 919 921 923 925 927 931 964 966 982 1009 1014M 1018B 1028M 1060 1095 1106M 1113M 1119 1120 1121 1155 1160 1166M 1170M 1171 1193 1213 1281B 1303M 1420M 1421B 1440 1442 1495 1497 1498M 1499M 1500 1576M 1595M 1603M 1668 1681 1737 1760 1771 1775 1824M 1825 1881 1886 1887M 1895 1900 1904 1905 2142M 2145M 2166 2345M 2355 2362 2385 2395 2404M 2405 2406M 2408 2415 2472M 2473 2474			
R9	1	00000009		U			3276	1887 1888M 2148M 2155 2395M 2404M 2406 2407M 2408 2420 2421 2422M 2426 2428 2429M 2448 2449M 2455 2472M 2474 2476			
S	2	00000014	FFFFFFFF	H	H		2691	2336M 2438			
SCPATTN	6	00001425	0000000F	X	X		2571	2451 2452			
SCRCS	1	000000C0		U			329	520M 1836 1902 2074M			
SETBIT	2	00000F9E	0000000F	I			2128	2125B 2167B			
SETSHORT	4	000010D8	0000000F	I			2254	2085			
SHORTBIT	1	00000010		U			246	2254 2255			
SHSW	1	00000020		U			252	2086			
SIZEARR	4	0000081C	00000001	F	F		1245	1119M 1131 1148M 1165 1187 1211			
SIZESMF	2	00000820	00000001	H	H		1246	1163M 1164 1182			
SMFFL	1	00000827	00000001	X	X		1250	1124M 1130M 1196			
SPDA	1	00000000	FFFFFFFF	J			1634	1439U 1640			
SPDALG	1	00000048		U			1640	1431 1615			
SPDAP	4	00000B44	00000001	F	F		1628	623 1436 1437M 1493 1608M 2076M			
SPDECL	1	00000924		U			1416	855B			
SPDECL01	4	00000A2A	00000001	I			1514	1502B 1507B 1509B 1511B			
SPDECL02	4	0000097C	00000001	I			1457	1518B			
SPDECL03	4	00000A68	00000001	I			1537	1525B			
SPDECL04	4	00000AC6	00000001	I			1572	1530B 1538B			
SPDECL05	4	00000A92	00000001	I			1554	1540B			
SPDECL06	4	00000AAC	00000001	I			1562	1557B			
SPDECL07	4	00000AB0	00000001	I			1563	1560B			
SPDECL08	4	00000ABE	00000001	I			1567	1563B 1565B			
SPDECL09	4	00000AE8	00000001	I			1581	1574B			
SPDECL10	4	00000AEC	00000001	I			1582	1579B			
SPDECL11	4	00000AFC	00000001	I			1590	1583B			
SPDECL12	2	00000B10	00000001	I			1601	1591B			
SPDECL13	4	00000B16	00000001	I			1603	1550B 1568B 1597B			
SPDECL14	4	00000B12	00000001	I			1602	1588B			
SPDECL15	4	000009B2	00000001	I			1476	1461B			
SPDECL17	4	000009E6	00000001	I			1493	1485			
SPDECL18	2	00000B1A	00000001	I			1607	1535B			
SPDECL19	4	000009FE	00000001	I			1499	1496B			
SPSAVE	4	00000004	FFFFFFFF	F	F		1636	1476M 1494 1522M 1609			
SPTHAD	4	00000B40	00000001	F	F		1627	1477M 1487			
STEP1	4	00000F6A	0000000F	I			2112	2127B			
STINSTR	4	000002E6	00000001	I			670	1577X 1602X			
STORAGE	4	00000368	00000001	A	A		743	732 740			
STRTST	4	000004FC	00000001	I			937	918B 946B			
SWDMERR	1	00000254		U			590	1667B 1669B			
SWTTST	4	00000514	00000001	I			945	922B			
SYSUT1	4	000014A0	0000000F	F	F		2628	2181 2184 2379 2469 2598			
SYSUT1X	4	000010A6	0000000F	I			2229	2676			
TERMAA	4	000002CA	00000001	I			643	612B			
TERMN	4	000002D2	00000001	I			648	523B			
TERMSW	1	00000010		U			253	637 2318			
TML	1	0000001E		U			2582	2488 2489			
TPRTST	4	0000053C	00000001	I			958	928B			
TRACE	1	00000100		U			376	2096M 2192M			
TRACEA	4	00000C44	00000001	I			1819	522B			
TRACE0	6	00000CCA	00000001	I			1861	1833B 1854B			
TRACE1	2	00000CDE	00000001	I			1865	1862B			
TRACE10	4	00000C7C	00000001	I			1836	1829B			
TRACE13	2	00000C96	00000001	I			1845	1838B			
TRACE14	2	00000CA4	00000001	I			1850	1846B			
TRACE15	4	00000CC2	00000001	I			1858	1840B 1842B 1851B			
TRACE16	4	00000C9C	00000001	I			1847	1843B			
TRACE18	6	00000CAE	00000001	I			1853	1848B			
TRACE2	4	00000D20	00000001	I			1892	1868B			
TRACE3	2	00000D36	00000001	I			1900	1893B			
TRACE4	4	00000CFC	00000001	I			1879	1870B			
TRACE5	6	00000CD4	00000001	I			1863	1856B			
TRACE6	4	00000D4C	00000001	I			1906	1831B 1834B 1859B			
TRBEG	4	00000D64	00000001	F	F		1915	1823 2098M 2142			
TRBUF	4	00001474	0000000F	F	F		2604	1824 1905M 2203M 2345 2404 2408M 2472			
TRBUFA	4	00001478	0000000F	F	F		2605	2209M			
TRBUFL	4	0000147C	0000000F	F	F		2606	2195M 2208 2477			
TRBUFMAX	2	000010D0	0000000F	H	H		2248	2241			
TRBUFMIN	2	000010CE	0000000F	H	H		2247	2239			
TRBUFST	1	00000800		U			2250	2232			
TRCHECK	4	00001460	0000000F	F	F		2594	1873 1879 2350 2360 2368 2383 2399 2413			
TRCNT	4	00001480	0000000F	F	F		2607	2205M			



Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.21
TREND	4	00000D68	00000001	F	F		1916	2145			
TRFLAG	1	00000D6C	00000001	X	X		1917	1832	1853	1855M	1858M 2071M
TRFLAG1	1	00000D6D	00000001	X	X		1921	1847M	1852M	1853	1855
TRHADR	4	000013D0	0000000F	A	A		2558	2546			
TRHEAD	4	000013A4	0000000F	I			2545	2392B	2440B		
TRHEADA	21	000013F4	0000000F	C	C		2567	2562			
TRHEADB	28	00001409	0000000F	C	C		2569	2565			
TRHEAD1	4	000013AC	0000000F	I			2547	2553B			
TRHEND	6	000013EE	0000000F	I			2565	2558			
TRHLIST	4	000013DC	0000000F	I			2560	2558			
TRLDIG	2	00001018	0000000F	H	H		2169	2161M	2163		
TRLIM1	4	00000FBC	0000000F	I			2142	2274B			
TRLIM2	4	00000FC4	0000000F	I			2145	2279B			
TRLIM2A	4	00000FC8	0000000F	I			2146	2143B			
TRLIM3	4	00001010	0000000F	I			2166	2152B	2154B		
TRLIM4	4	00000FD6	0000000F	I			2150	2164B			
TRL1	2	00000D56	00000001	H	H		1910	1826	1892		
TRL2	2	00000D58	00000001	H	H		1911	1864			
TRMPNAME	4	00000D6E	00000001	C	C		1922	1828	2222M		
TRMSG	4	00001430	0000000F	U			2581	2488	2582		
TRPGID	2	00000D5A	00000001	H	H		1912	1861	1863M	1897	2069M 2070M 2072M 2073M 2097M 2098
TRSW	1	00000040		U			251	2174	2188	2276	2281 2341
TYPTST	4	000004E8	00000001	I			931	956B	960B		
UCTRSW	1	00000041		U			257	2271			
UT1ERR	1	00000004		U			255	2343	2586		
VALLD	4	000002DA	00000001	I			666	1112X			
VALST	4	000002DE	00000001	I			667	1107X			
VALUCAL	4	0000060C	00000001	I			1058	526B			
VALUC00	4	00000644	00000001	I			1076	1071B	1073B		
VALUC11	4	0000065C	00000001	I			1089	1077B			
VALUC12	6	00000668	00000001	I			1092	1068B	1082B	1085B	1090B
VALUC14	4	00000684	00000001	I			1099	1216B			
VALUC15	4	0000069C	00000001	I			1112	1101B			
VALUC21	6	000006AA	00000001	I			1119	1094B			
VALUC25	4	000006F6	00000001	I			1145	1134B			
VALUC26	4	00000702	00000001	I			1148	1141B			
VALUC31	2	0000070E	00000001	I			1154	1127B	1129B		
VALUC32	4	00000730	00000001	I			1163	1159B	1161B		
VALUC35	4	00000786	00000001	I			1195	1205B			
VALUC36	4	0000079E	00000001	I			1201	1197B	1199B		
VALUC51	4	000007C6	00000001	I			1216	1220B			
VALUC52	4	000007DA	00000001	I			1221	1235B			
VALUC61	4	000007E2	00000001	I			1224	1215B			
VALUC61A	2	000007E6	00000001	I			1225	1232B			
VALUC62	4	00000800	00000001	I			1234	1227B			
VALUC63	6	00000808	00000001	I			1237	1228X	1234X		
VTTEST	4	000008A0	00000001	I			1335	1321B	1357B		
WTOTRM	4	0000142C	0000000F	F	F		2574	2323	2581		

Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)																X390 3.1.04	2012/08/17	13.21
0(0)	725	871M	880M	881	1164M	1165M	1323M	1335M	1339M	1349M	1367M	1382M	1432M	1442M	1443	1445M	1447M	1448	
	1476	1494M	1508	1518M	1546M	1547M	1548M	1549	1555M	1562M	1564M	1566M	1567	1616M	1747M	1761M	1770	1772	
	1819	1865M	1866M	1867	1886M	1888	1906M	1998	2043M	2193M	2195	2196M	2204M	2205	2206M	2207	2477M	2478M	
	2508M	2523M	2545	2555M															
1(1)	551M	552M	553M	554M	555M	556M	557M	558M	559M	560M	561M	562M	563M	564M	565M	566M	567M	568M	
	570M	571M	575M	576M	577M	578M	579M	580M	581M	582M	583M	584M	585M	586M	587M	588M	591M	592M	
	595M	596M	597M	598M	599M	601M	603M	604M	608M	609M	610	620M	666N	730M	735	740M	771M	772M	
	772N	780	806M	807N	876M	881	882	883	884	885	886	887	907M	916M	916N	990	999	1015M	
	1022M	1023	1028	1061M	1062N	1096M	1097	1105	1133M	1140M	1147M	1150	1171	1175	1179	1181	1183	1185	
	1188	1192	1204	1212	1213M	1217M	1230M	1237	1275M	1279	1322M	1323	1324M	1325	1338M	1339	1340	1345	
	1354M	1366M	1371M	1378M	1388M	1430M	1432	1436	1437	1438	1453M	1455	1456	1472	1476	1494M	1499	1500	
	1512	1514M	1523M	1544M	1544N	1545	1554	1556	1572	1573	1578	1607M	1608	1617M	1684M	1686N	1707M	1708N	
	1765M	1819	1822M	1828	1861	1863	1873M	1874	1879M	1880	1881N	1882N	1895M	1896M	1897	1900M	1901M	1902	
	1906M	1938	1943	1998	2030M	2036	2044M	2047M	2048	2049	2050M	2051	2052	2059M	2060	2122M	2124	2126	
	2128	2146	2148	2150M	2151	2153	2155	2157	2159	2161	2179M	2200M	2209	2207	2208M	2209	2228U	2245D	
	2323M	2350M	2351	2360M	2361	2362N	2363N	2368M	2369	2377M	2383M	2384	2385N	2386N	2399M	2400	2405M	2407	
	2413M	2414	2415N	2416N	2467M	2473M	2476M	2482M	2503M	2504M	2509M	2515M	2523M	2545	2547M	2555M	2562	2565	
	667N	669N	725M	735	778M	779	787M	788	854M	880N	883	886N	902M	903M	904	905M	906M	910	
	915	988M	989M	996	1097M	1114	1177M	1178	1179N	1193M	1195N	1203M	1212M	1218M	1231M	1237	1337M	1338N	
	1340M	1342	1344M	1345M	1346M	1347M	1348M	1349	1361M	1362M	1364N	1366N	1367N	1379M	1381N	1382N	1425M	1435	
	1443M	1444M	1457	1458	1476	1485M	1486	1494M	1517M	1526M	1527M	1528N	1554M	1562	1572M	1575	1609M	1621B	
	1685M	1686	1734M	1743	1754	1755	1819	1826M	1864M	1865	1892	1906M	1939M	1940M	1941M	1942M	1942N	1943	
	1998	2055M	2057M	2060	2061	2062M	2063	2082M	2083	2085M	2089M	2091N	2099M	2100M	2102M	2103M	2104	2107	
	2110	2112M	2113	2122N	2128M	2137	2216M	2217M	2218M	2219M	2220M	2221	2222	2229M	2230M	2232M	2233	2239	
	2241	2423M	2432	2443M	2445	2447M	2451	2452	2453M	2454	2487M	2488	2489M	2490	2491M	2496M	2512M	2515	
3(3)	2523M	2528	2529M	2531	2533	2534M	2537	2538M	2545	2546M	2553	2555M							
	852M	853M	854	863M	864	869	871	896	898	900	903	908	990M	992	994M	995M	996M	996N	
	997M	999	1022	1024	1211M	1219M	1225M	1226	1229M	1234	1364M	1365	1380M	1381	1454M	1476	1478M	1479M	
	1480	1482	1483	1486N	1494M	1497	1498	1515M	1671M	1672M	1672N	1673	1675	1676	1680	1700M	1701	1702M	
	1703	1706N	1733M	1735	1740M	1743M	1744	1747	1752M	1754M	1756	1759	1768	1769	1770	1771M	1772N	1819	
	1820M	1821U	1906M	1924D	1998	2090M	2092M	2104M	2105M	2107M	2113	2126	2151	2184M	2185U	2194D	2254	2255	
	2432M	2433	2448M	2450	2523M	2528	2530M	2531	2538M	2545	2546M	2553	2555M						
	872M	879	904M	1016M	1224M	1226	1228	1229	1441M	1476	1494M	1528	1733M	1735	1737	1738M	1741M	1742M	
	1746M	1753M	1755M	1756	1758	1760	1761	1819	1825M	1866	1889M	1896	1898M	1901	1903M	1904	1906M	1998	
	2090M	2092	2117M	2118U	2132	2133M	2138D	2355M	2356	2420M	2421M	2455	2523M	2545	2546M	2549N	2553M	2555M	
5(5)	1098M	1100B	1108B	1115B	1216M	1438M	1439U	1493M	1607	1623D	1819	1836M	1839	1841	1845	1850	1906M	1998	
	2054M	2055	2056M	2063	2065	2066M	2090M	2092	2108M	2132	2309M	2310M	2312U	2523M	2545	2555M			
6(6)	1819	1823M	1837	1839	1850	1906M	1998	2109M	2119M	2120	2122	2189M	2311M	2523M	2545	2555M	2587M		
7(7)	632U	636M	643M	648M	651D	1819	1823M	1837	1841	1845	1906M	1998	2004M	2005U	2009D	2026U	2523M	2545	
8(8)	2555M																		
	449B	476B	477B	688B	699B	741B	785B	866	917	919	921	923	925	927	931	964	966	982	
	1009	1014M	1018B	1028M	1060	1095	1106M	1113M	1119	1120	1121	1155N	1160	1166M	1170M	1171	1193	1213	
	1281B	1303M	1420M	1421B	1440	1442	1495	1497	1498M	1499M	1500	1576M	1595M	1603M	1668	1681	1737	1760	
	1771	1775B	1819	1824M	1825	1881	1886	1887M	1895	1900	1904	1905	1906M	1998	2142M	2145M	2166	2345M	
	2355	2362	2385	2395	2404M	2405	2406M	2408	2415	2472M	2473	2474	2523M	2545	2555M				
	1278	1678	1819	1824M	1887	1888M	1905	1906M	1998	2148M	2155	2345M	2395M	2404M	2406	2407M	2408	2420	
	2421	2422M	2426	2428	2429M	2448	2449M	2455	2472M	2474	2476	2523M	2545	2555M					
	776	777	778	782M	783	802M	803	806N	807	882	887M	888	893	907N	913	914	988N	1062	
	1175	1178	1179	1277M	1302	1335	1337	1338	1342	1362	1364	1365	1366	1367	1378	1379	1380	1383M	
10(A)	1384	1483	1484	1620	1675	1678	1684	1685	1687M	1688	1706M	1707	1708	1709	1768	1819	1824M	1867	
	1905	1906M	1998	2053M	2061	2069	2070	2071	2074	2075	2076	2149M	2162M	2163M	2166	2213M	2345M	2523M	
	2545	2555M																	
	772	777M	779	780	783M	803M	807	850M	863	880	886	888	1023M	1024	1381	1382	1384M	1484M	
11(B)	1620M	1686	1688M	1708	1709M	1772	1819	1822	1824M	1869M	1890M	1905	1906M	1998	2215M	2221	2345M	2346M	
	2373M	2393M	2409M	2457M	2523M	2545	2555M												
12(C)	783M	803M	850M	888	1023M	1384M	1441	1484M	1620M	1688M	1709M	1819	1906M	1998	2000M	2001	2002	2003	
	2215M	2308M	2523M	2545	2555M														
13(D)	438U	466N	470N	504U	520	610N	611	613	637	670N	739N	769N	774N	775N	784N	801N	805N	810N	
	845	850	852N	855B	856N	866	868B	889N	891N	892N	895N	901B	930B	935B	939B	942B	949B	951B	
	955B	959B	963N	969N	973N	1012N	1027N	1029	1030N	1072	1106N	1113N	1126	1166N	1269N	1272	1280N	1282N	
	1302	1303N	1304N	1305N	1316N	1317N	1318N	1319N	1322N	1325N	1391N	1462N	1467N	1469N	1471N	1478N	1480N	1481N	
	1482N	1495N	1545	1546N	1549N	1567	1576N	1578	1595N	1596N	1603N	1667N	1669N	1671N	1673N	1674N	1680N	1700N	
	1702N	1703N	1733	1740N	1741N	1752N	1753N	1757N	1758N	1759N	1819	1830	1836N	1902	1906	1937M	1938	1939	
	1990D	1998	2001	2002	2003M	2025U	2036	2047	2048	2049	2051	2052	2054N	2074N	2075N	2083	2086	2096	
	2099	2135N	2147N	2156N	2158N	2160N	2174	2188	2190N	2192	2265	2271	2276	2281	2308	2309	2318	2319	
	2341	2343	2503N	2512	2518M	2522N	2523	2545	2555	2586									
	441M	442	472M	473M	477M	630M	769M	770	773M	774	776	784	788	801M	802	804N	805M	810	
	889M	890M	890N	891	893	894	895	1017	1062M	1067	1070	1076	1095	1096	1105M</				

FSA		Dsect Cross Reference					PAGE 38	
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.21
DSTABLE	00000024	FFFFFFFFE	2684	4	DSTABLE			
IHADCB	00000058	FFFFFFFD	2733	1	DCBD			
SPDA	00000048	FFFFFFF	1634		PRIMARY INPUT			

Con	Source	Members											
1	SYS1.MACLIB	CALL	CHECK	CLOSE	DCB	DCBD	DELETE	FREEMAIN	GETMAIN	IEZREGS	IHBINNRA	IHBOPLST	
		IHBRDWRS	IHB01	LOAD	OPEN	READ	RETURN	SAVE	SPIE	WRITE	WTO		
2	SYSD.TOOLS.MACLIB												
3	SYSD.ALGOLFRT.ASM												
4	SYSD.ALGOLFRT.MACLIB												
		DSTABLE	FSACONV	FSAREA									
5	SYS1.AMODGEN												

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Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
438		USING	Ordinary	00000001	00000000	00001000	13	001C8	475	FSAREA, R13			
504		USING	Ordinary	00000001	00000000	00001000	13	00E68	1897	IHIFSARA, R13			
632		USING	Ordinary	0000000F	00000E70	00001000	7	004F2	649	IHIFSARB, R7			
651		DROP					7			R7			
1439		USING	Ordinary	FFFFFFFF	00000000	00001000	5	00030	1609	SPDA, R5			
1623		DROP					5			R5			
1821		USING	Ordinary	0000000F	00000E70	00001000	3	00604	1905	IHIFSARB, R3			
1924		DROP					3			R3			
1936		USING	Ordinary	00000001	00000D72	00001000	15	000DE	1942	PIEROUT, R15			
1946		DROP					15			R15			
1990		DROP					13			R13			
1991		USING	Ordinary	00000001	00000DFC	00001000	15	00054	2004	IHIFSAIN, R15			
2005		USING	Ordinary	0000000F	00000E70	00001000	7	00000	2006	IHIFSARB, R7			
2008		DROP					15			R15			
2009		DROP					7			R7			
2025		USING	Ordinary	00000001	00000000	00001000	13	00E6C	2588	IHIFSARA, R13			
2026		USING	Ordinary	0000000F	00000E70	00001000	7	00630	2565	IHIFSARB, R7			
2118		USING	Ordinary	0000000F	000010E0	00001000	4	0000A	2137	PARMLIST, R4			
2138		DROP					4			R4			
2185		USING	Ordinary	FFFFFFFD	00000000	00001000	3	0003E	2193	IHADCB, R3			
2194		DROP					3			R3			
2228		USING	Ordinary	FFFFFFFD	00000000	00001000	1	0003E	2233	IHADCB, R1			
2245		DROP					1			R1			
2312		USING	Ordinary	FFFFFFFE	00000000	00001000	5	0001B	2550	DSTABLE, R5			

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The following statements were flagged -

SYSD.ALGOLFRT.ASM(IHIFSA)  
1936(1653), 2118(1820)

2 statements flagged in this assembly, 4 was the highest severity code.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHIFSA PROCSTEP: X390

Primary input: lines 1 to 2271 of SYSD.ALGOLFRT.ASM(IHIFSA)

SYSLIB library records read: 6933

SYSUT1 work file size: 289928 bytes

SYSUT2 work file size: 623479 bytes

SYSUT3 work file size: 181680 bytes

SYSLIN file records written: 110

TXA000I Return code 4, elapsed time 2.83 seconds.

Csect	Rel	Addr(hex)	Length(dec)
-------	-----	-----------	-------------

IHIFSARA		000000	152
----------	--	--------	-----

IHIFSARA		0000C3	17
----------	--	--------	----

IHIFSARA		000E6E	2
----------	--	--------	---

IHIFSARB		0014FC	4
----------	--	--------	---

**IHIGPR**

**LEVEL**

**V2.M01**



TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIGPR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00134
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmnt	Source Statement	X390 3.1.04 2012/08/17 13.21
2	*					00002001
3	*				COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
4	*					00004001
5	*				STATUS - LEVEL 2.1	00005001
6	*					00006001
7	*				FUNCTION/OPERATION -	00007001
8	*					00008001
9	*				ACTION OF PUT -	00009001
10	*				TRANSFER DATA INDICATED BY A LIST PROCEDURE, WHICH IS THE	00010001
11	*				SECOND PARAMETER IN PUT, TO AN I/O BUFFER IN BINARY FORM	00011001
12	*				WRITE A RECORD, V-FORM, TO A DASD DATASET WITH A	00012001
13	*				DDNAME OF SYSUT2. ENTER REPOSITIONING INFORMATION IN	00013001
14	*				NOTTAB	00014001
15	*					00015001
16	*				ACTION OF GET -	00016001
17	*				RETRIEVE INFORMATION AFTER REPOSITIONING OF DATASET	00017001
18	*				STORED BY PUT AND ASSIGN DATA TO IDENTIFIER IN LIST	00018001
19	*				PROCEDURE	00019001
20	*					00020001
21	*				ENTRY POINTS -	00021001
22	*				IHIGPRPT - FROM GENERATED OBJECT MODULE	00022001
23	*				DATA PASSED BY NAME	00023001
24	*				LA R1,PARMLIST	00024001
25	*				BALR R14,R15	00025001
26	*					00026001
27	*				IHIGPROT - FROM IHIFSA	00027001
28	*				PROCEDURE IS ACTUAL PARAMETER OF LIST DATA	00028001
29	*				PASSED BY NAME R15 POINTS TO A THUNK FIELD	00029001
30	*					00030001
31	*				IHIGPRGT - FROM GENERATED OBJECT MODULE	00031001
32	*				DATA PASSED BY NAME	00032001
33	*				LA R1,PARMLIST	00033001
34	*				BALR R14,R15	00034001
35	*					00035001
36	*				IHIGPRIT - FROM IHIFSA	00036001
37	*				PROCEDURE IS ACTUAL PARAMETER OF LIST DATA	00037001
38	*				PASSED BY NAME R15 POINTS TO A THUNK FIELD	00038001
39	*					00039001
40	*				IHIGPRCL - FROM IHIIOR - CLOSE DATASET	00040001
41	*				NO DATA PASSED	00041001
42	*				BALR R14,R15	00042001
43	*					00043001
44	*				INPUT -	00044001
45	*				GET READS A RECORD STORED PREVIOUSLY BY PUT, DATA IN	00045001
46	*				BINARY FORM	00046001
47	*					00047001
48	*				OUTPUT - STORES DATA IN BINARY FORM	00048001
49	*					00049001
50	*				EXTERNAL ROUTINES -	00050001
51	*				IHIIOR - CONVERT REAL TO INTEGER - ENTRY NOTTAB - SYNAD	00051001
52	*					00052001
53	*				EXITS - NORMAL -	00053001
54	*				FOR ROUTINE PUT AND GET RELOAD REGISTERS AND BR14	00054001
55	*				FOR PROCEDURE OUTPUT AND INPUT SEE BELOW	00055001
56	*				- ERROR -	00056001
57	*				NO.10 DATASET CLOSED	00057001
58	*				NO.14 BACK WARD REPOSITIONING NOT DEFINED	00058001
59	*				NO.20 ACTUAL AND FORMAL PARAMETER OF DIFFERENT TYPE	00059001
60	*				NO.21 NUMBER OF PARAMETERS DOES NOT CORRESPOND	00060001
61	*				NO.36 TOO MANY NESTED BLOCKS PROCEDURES AND PARAMETERS	00061001
62	*				NO.38 GET/PUT BUFFER OVERFLOW	00062001
63	*				NO.39 GET/PUT IDENTIFICATION OUT OF RANGE	00063001
64	*				NO.41 DD CARD INCORRECT OR MISSING	00064001
65	*				NO.43 RECURSIVELY TRY OF PUT/GET OR OUTPUT/INPUT	00065001
66	*				ACTION - BRANCH TO IHIFSA	00066001
67	*				LA R13,IHIFSA	00067001
68	*				B FSAERR+XX*4(R13) XX ERROR NO	00068001
69	*					00069001
70	*				TABLES/WORKAREAS - N/A	00070001
71	*					00071001
72	*				ATTRIBUTES - SERIALY REUSABLE	00072001
73	*					00073001
74	*				NOTES -	00074001
75	*				THE LIST PROCEDURE HAS ONE FORMAL PARAMETER WHICH IS A	00075001
76	*				PROCEDURE AND WHICH ONLY IS DECLARED AND HAS NO	00076001
77	*				PROCEDURE BODY IN THE ALGOL PROGRAM, AT ACTUAL POSITION	00077001
78	*				THIS IS OUTPUT RESP. INPUT ADDR OF PUT/GET FIELD IN	00078001
79	*				DSTAB LOADED TO R5 R6=16 IS KEPT THROUGH THE	00079001
80	*				MODULE IN ORDER TO ADDR THIS FIELD	00080001
81	*					00081001
82		00000	00A5E		IHIGPRTN CSECT	00082001
83	*					00083001
84					ENTRY IHIGPRPT	00084001
85					ENTRY IHIGPROT	00085001
86					ENTRY IHIGPRGT	00086001
87					ENTRY IHIGPRIT	00087001
88					ENTRY IHIGPROP	00088001
89					ENTRY IHIGPRCL	00089001
90	*					00090001
91	*				FLOATING POINT REGISTER	00091001
92	*					00092001
93		00000		FPR0	EQU 0	00093001
94	*					00094001
95	*				DISPLACEMENTS IN ADRLST IN IHIFSA	00095001
96	*					00096001
97	*				DISPLACEMENT FOR	00097001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
		00000		98	CI	EQU 0	IHIORCI 00098001
		00004		99	CL	EQU 4	IHIORCL 00099001
		00008		100	EV	EQU 8	IHIOREV 00100001
		0000C		101	NX	EQU 12	IHIORNX 00101001
		00010		102	OP	EQU 16	IHIOROP 00102001
		00014		103	OQ	EQU 20	IHIOROQ 00103001
		00018		104	EN	EQU 24	IHIOREN 00104001
		0001C		105	GP	EQU 28	IHIORGP 00105001
		00020		106	ER	EQU 32	IHIORER 00106001
				107	*		00107001
				108	*	PUT/GET FLAGS	00108001
				109	*		00109001
		00080		110	PG0	EQU X'80'	00110001
		00040		111	PG1	EQU X'40'	00111001
				112	*		00112001
	R:F	00000		113		USING IHIGPRPT,R15	00113001
				114	*		00114001
				115	IHIGPRPT	IHIENTRY 'IHIGPRPT LEVEL 2.1 &SYSDATE &SYSTIME'	00115001
				116+	*		01-IHIEN
000000	47F0 F026		00026	117+	IHIGPRPT B	38(,R15) BRANCH AROUND ID	01-IHIEN
000004	21			118+	DC	AL1(33) LENGTH OF IDENTIFIER	01-IHIEN
000005	C9C8C9C7D7D9D7E3			119+	DC	CL33'IHIGPRPT LEVEL 2.1 08/17/12 13.21'	+01-IHIEN
						IDENTIFIER	01-IHIEN
				120	*		00116001
000026	50D0 F8C0		008C0	121	ST	R13,SAVEPG+4	00117001
00002A	41D0 F8BC		008BC	122	LA	R13,SAVEPG	00118001
				123	*		00119001
				124	SAVE	(14,12)	00120001
00002E				125+	DS	0H	01-SAVE
00002E	90EC D00C		0000C	126+	STM	14,12,12(13)	01-SAVE
				127	*		00121001
				128	DROP	R15	00122001
000032	187F			129	LR	R7,R15	00123001
		R:7	00000	130	USING	IHIGPRPT,R7	00124001
000034	50D0 71C8		001C8	131	ST	R13,SAVEPUT+4	00125001
000038	58C0 78C0		008C0	132	L	R12,SAVEPG+4	00126001
00003C	41D0 71C4		001C4	133	LA	R13,SAVEPUT	00127001
000040	585C 00AC		000AC	134	L	R5,ADSTAB(R12)	00128001
000044	5850 5000		00000	135	L	R5,0(,R5)	00129001
000048	4160 0010		00010	136	LA	R6,16	00130001
		R:5	00000	137	USING	PGCF,R5	00131001
00004C	9101 78B8		008B8	138	TM	RECPG,X'01'	00132001
000050	4710 7A58		00A58	139	BO	ERROR43	00133001
000054	9601 78B8		008B8	140	OI	RECPG,X'01'	00134001
000058	9180 501B		0001B	141	TM	PG,PG0	00135001
00005C	4780 70BA		000BA	142	BZ	PUT1	00136001
				143	*		00137001
000060	5880 5000		00000	144	L	R8,ADCB	00138001
		R:8	00000	145	USING	IHADCB,R8	00139001
000064	9140 501B		0001B	146	TM	PG,PG1	00140001
000068	4710 7098		00098	147	BO	PUT2	00141001
				148	*		00142001
				149	CHECK	DECB	00143001
00006C	4110 8058		00058	150+	LA	1,DECB	02-IHBIN
000070	58E0 1008		00008	151+	L	14,8(0,1)	01-CHECK
000074	58F0 E034		00034	152+	L	15,52(0,14)	01-CHECK
000078	05EF			153+	BALR	14,15	01-CHECK
				154	*		00144001
				155	NOTE	(R8)	00145001
00007A	1818			156+	LR	1,R8	02-IHBIN
00007C	58F0 1054		00054	157+	L	15,84(0,1)	01-NOTE
000080	05EF			158+	BALR	14,15	01-NOTE
				159	*		00146001
000082	4150 5004		00004	160	LA	R5,4(,R5)	00147001
000086	58FC 011C		0011C	161	L	R15,IORLST(R12)	00148001
00008A	58F0 F018		00018	162	L	R15,EN(,R15)	00149001
00008E	05EF			163	BALR	R14,R15	00150001
000090	4B50 7A20		00A20	164	SH	R5,=H'4'	00151001
000094	47F0 70C4		000C4	165	B	PUT3	00152001
				166	*		00153001
000098	5820 5014		00014	167	PUT2	L R2,NOTEADR	00154001
00009C	4120 2001		00001	168	LA	R2,1(,R2)	00155001
0000A0	5020 5014		00014	169	ST	R2,NOTEADR	00156001
0000A4	1818			170	LR	R1,R8	00157001
				171	*		00158001
				172	POINT	(1),NOTEADR	00159001
0000A6	4100 5014		00014	173+	LA	0,NOTEADR	02-IHBIN
0000AA	58F0 1054		00054	174+	L	15,84(0,1)	01-POINT
0000AE	45EF 0004		00004	175+	BAL	14,4(15,0)	01-POINT
				176	*		00160001
0000B2	94BF 501B		0001B	177	NI	PG,X'BF'	00161001
0000B6	47F0 70C4		000C4	178	B	PUT3	00162001
				179	*		00163001
0000BA	58F0 79F0		009F0	180	PUT1	L R15,AOPENPG	00164001
0000BE	05EF			181	BALR	R14,R15	00165001
0000C0	5880 5000		00000	182	L	R8,ADCB	00166001
				183	*		00167001
				184	*	EVALUATE IDENTIFICATION NUMBER FIRST PARAMETER	00168001
				185	*		00169001
0000C4	5810 78D4		008D4	186	PUT3	L R1,SAVEPG+24	00170001
0000C8	BF2F 1000		00000	187	ICM	R2,B'1111',0(R1)	00171001
0000CC	4720 70F2		000F2	188	BP	PUT4	00172001
0000D0	9120 C0C2		000C2	189	TM	OPTSW(R12),X'20'	00173001
0000D4	4710 70E0		000E0	190	BO	PUT31	00174001
0000D8	6800 2000		00000	191	LD	FPR0,0(,R2)	00175001
0000DC	47F0 70E4		000E4	192	B	PUT31A	00176001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				193 *			
0000E0	7800 2000		00000	194 PUT31	LE	FPR0,0(,R2)	00177001
0000E4	58FC 011C		0011C	195 PUT31A	L	R15,IORLST(R12)	00178001
0000E8	58FF 0000		00000	196	L	R15,CI(R15)	00179001
0000EC	05EF			197	BALR	R14,R15	00180001
0000EE	47F0 70F6		000F6	198	B	PUT4A	00181001
				199 *			00182001
0000F2	5800 2000		00000	200 PUT4	L	R0,0(,R2)	00183001
0000F6	1200			201 PUT4A	LTR	R0,R0	00184001
0000F8	4740 7A52		00A52	202	BM	ERROR39	00185001
0000FC	5900 7A18		00A18	203	C	R0,TWOP16	00186001
000100	47B0 7A52		00A52	204	BNL	ERROR39	00187001
				205 *			00188001
				206 *			00189001
000104	4000 5018		00018	207	STH	R0,S	00190001
				208 *			00191001
				209 *			00192001
				210 *			00193001
000108	589C 00B0		000B0	211	L	R9,ANOTTAB(R12)	00194001
00010C	18A9			212	LR	R10,R9	00195001
00010E	41A0 A008		00008	213 PUTNOT	LA	R10,8(,R10)	00196001
000112	59A0 9000		00000	214	C	R10,0(,R9)	00197001
000116	4780 7132		00132	215	BE	PUT41	00198001
00011A	1826			216	LR	R2,R6	00199001
00011C	4920 A000		00000	217	CH	R2,0(,R10)	00200001
000120	4770 710E		0010E	218	BNE	PUTNOT	00201001
000124	D501 5018	A002 00018	00002	219	CLC	S(2),2(R10)	00202001
00012A	4770 710E		0010E	220	BNE	PUTNOT	00203001
00012E	9280 A000		00000	221	MVI	0(R10),X'80'	00204001
				222 *			00205001
000132	5840 500C		0000C	223 PUT41	L	R4,BB	00206001
000136	4140 400C		0000C	224	LA	R4,12(,R4)	00207001
00013A	5040 5004		00004	225	ST	R4,R	00208001
00013E	9200 501A		0001A	226	MVI	TYP,0	00209001
				227 *			00210001
				228	SAVE	(14,12)	00211001
000142				229+	DS	0H	00212001
000142	90EC D00C		0000C	230+	STM	14,12,12(13)	01-SAVE
				231 *			01-SAVE
000146	58D0 71C8		001C8	232	L	R13,SAVEPUT+4	00213001
00014A	98EC D00C		0000C	233	LM	R14,R12,12(R13)	00214001
00014E	5880 1004		00004	234	L	R8,4(,R1)	00215001
				235 *			00216001
		R:F 00000		236	USING	IHIGPRPT,R15	00217001
							00218001
** TXA531W Prior USING at statement 130 overridden by this USING.							
** TXA301I Record 218 in SYSD.ALGOLFRT.ASM(IHIGPR)							
000152	58D0 F8C0		008C0	237	L	R13,SAVEPG+4	00219001
				238	DROP	R15	00220001
000156	0700			239	CNOP	0,4	00221001
000158	45FD 00E0		000E0	240	BAL	R15,PROLOG(R13)	00222001
				241 *			00223001
00015C	000003CA			242	DC	A(THUNKOUT)	00224001
000160	8880			243	DC	X'8880'	00225001
000162	0001			244	DC	H'1'	00226001
				245 *			00227001
		R:F 00164		246	USING *	R15	00228001
** TXA533W USING range overlaps prior USING at statement 130.							
** TXA301I Record 228 in SYSD.ALGOLFRT.ASM(IHIGPR)							
000164	41D0 F060		001C4	247	LA	R13,SAVEPUT	00229001
				248	DROP	R15	00230001
000168	98EC D00C		0000C	249	LM	R14,R12,12(R13)	00231001
00016C	5840 5004		00004	250	L	R4,R	00232001
000170	5840 500C		0000C	251	S	R4,BB	00233001
000174	5830 500C		0000C	252	L	R3,BB	00234001
000178	4040 3000		00000	253	STH	R4,0(,R3)	00235001
00017C	4B40 7A20		00A20	254	SH	R4,=H'4'	00236001
000180	4130 3004		00004	255	LA	R3,4(,R3)	00237001
000184	4040 3000		00000	256	STH	R4,0(,R3)	00238001
000188	D201 3004	5018 00004	00018	257	MVC	4(2,R3),S	00239001
00018E	D200 3006	501A 00006	0001A	258	MVC	6(1,R3),TYP	00240001
000194	5830 500C		0000C	259	L	R3,BB	00241001
000198	9200 78B8		008B8	260	MVI	RECPG,0	00242001
				261 *			00243001
				262	WRITE	DECB,SF,(R8),(R3),MF=E	00244001
00019C	4110 8058		00058	263+	LA	1,DECB	02-IHBRD
0001A0	9220 1005		00005	264+	MVI	5(1),X'20'	02-IHBRD
0001A4	5081 0008		00008	265+	ST	R8,8(1,0)	02-IHBRD
0001A8	5031 000C		0000C	266+	ST	R3,12(1,0)	02-IHBRD
0001AC	58F1 0008		00008	267+	L	15,8(1,0)	02-IHBRD
0001B0	58F0 F030		00030	268+	L	15,48(0,15)	02-IHBRD
0001B4	05EF			269+	BALR	14,15	02-IHBRD
				270 *			00245001
0001B6	58D0 71C8		001C8	271	L	R13,SAVEPUT+4	00246001
0001BA	98EC D00C		0000C	272	LM	R14,R12,12(R13)	00247001
				273	USING	IHIGPRPT,R15	00248001
** TXA531W Prior USING at statement 130 overridden by this USING.							
** TXA301I Record 248 in SYSD.ALGOLFRT.ASM(IHIGPR)							
0001BE	58D0 F8C0		008C0	274	L	R13,SAVEPG+4	00249001
0001C2	07FE			275	BR	R14	00250001
				276 *			00251001
0001C4	0000000000000000			277 SAVEPUT	DC	18F'0'	00252001
				278 *			00253001
				279	DROP	R15	00254001
				280 *			00255001
				281	*****		00256001
				282 *			00257001

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04	2012/08/17 13.21
				283 *	IHIGPROT - OUTPUT IS ACTUAL PROCEDURE TO LIST		00258001
				284 *	EVALUATED BY THUNKOUT		00259001
				285 *			00260001
				286	*****		00261001
				287 *			00262001
				288 *	REGISTER CONTENTS ON ENTRY POINT IHIGPROT		00263001
				289 *			00264001
				290 *	R13 -> FSA		00265001
				291 *	R15 -> A THUNKFIELD		00266001
				292 *	R8 -> ENTRY POINT		00267001
				293 *			00268001
				294 *	REGISTER CONTENTS ON ENTRY POINT OUTPUTTH OUTPUT BUFFER		00269001
				295 *			00270001
				296 *	R15 -> OUTPUTTH		00271001
				297 *	R8 -> VALUE TO BE TRANSFERED TO		00272001
				298 *	OTHER GENERAL REG		00273001
00020C	4700 0700			299	CNOP 0,8		00274001
	R:8 00210			300	USING IHIGPROT,R8		00275001
** TXA533W USING range overlaps prior USING at statement 130.							
** TXA301I Record 275 in SYSD.ALGOLFRT.ASM(IHIGPR)							
				301 *			00276001
				302	IHIGPROT IHIENTRY 'IHIGPROT LEVEL 2.1 &SYSDATE &SYSTIME',REG=R8		00277001
				303+*			01-IHIEN
000210	47F0 8026		00026	304+IHIGPROT	B 38(,R8) BRANCH AROUND ID		01-IHIEN
000214	21			305+	DC AL1(33) LENGTH OF IDENTIFIER		01-IHIEN
000215	C9C8C9C7D7D9D6E3			306+	DC CL33'IHIGPROT LEVEL 2.1 08/17/12 13.21'		+01-IHIEN
					+ IDENTIFIER		01-IHIEN
				307 *			00278001
000236	50D0 86F8		00908	308	ST R13,SAVEOI+4		00279001
00023A	41D0 86F4		00904	309	LA R13,SAVEOI		00280001
				310 *			00281001
				311	SAVE (14,12)		00282001
00023E				312+	DS 0H		01-SAVE
00023E	90EC D00C		0000C	313+	STM 14,12,12(13)	SAVE REGISTERS	01-SAVE
				314 *			00283001
000242	50D0 80FC		0030C	315	ST R13,SAVOUTP+4		00284001
				316	DROP R8		00285001
000246	1878			317	LR R7,R8	FIXED STORAGE AREA ON ENTRY	00286001
				318	USING IHIGPROT,R7		00287001
000248	50D0 70FC		0030C	319	ST R13,SAVOUTP+4		00288001
00024C	58C0 76F8		00908	320	L R12,SAVEOI+4	R12 -> FSA	00289001
000250	41D0 70F8		00308	321	LA R13,SAVOUTP		00290001
000254	585C 00AC		000AC	322	L R5,ADSTAB(R12)		00291001
000258	5850 5000		00000	323	L R5,0(,R5)	R5 -> PGCF	00292001
00025C	4160 0010		00010	324	LA R6,16	SET DSNR TO 16 FOR SYSUT2	00293001
				325	USING PGCF,R5	FOR DSECT ADDRESSING	00294001
000260	9101 76A9		008B9	326	TM RECOI,X'01'	TEST IF RECURSIVELY	00295001
000264	4710 7848		00A58	327	BO ERROR43	YES	00296001
000268	9601 76A9		008B9	328	OI RECOI,X'01'	SET FLAG BIT	00297001
00026C	9501 F007		00007	329	CLI 7(R15),X'01'	TEST NUMBER OF PARAMETER	00298001
000270	4770 7830		00A40	330	BNE ERROR21		00299001
000274	9103 F005		00005	331	TM 5(R15),X'03'	TEST TYP INFORMATION ABOUT FIRST	00300001
000278	4780 782A		00A3A	332	BZ ERROR20	PARAMETER	00301001
00027C	9104 F005		00005	333	TM 5(R15),X'04'	TEST IF ARRAY	00302001
000280	4710 782A		00A3A	334	BO ERROR20	ARRAY	00303001
000284	91C0 F005		00005	335	TM 5(R15),X'C0'		00304001
000288	4780 7094		002A4	336	BZ OUTPUT01	NO	00305001
00028C	9140 F005		00005	337	TM 5(R15),X'40'		00306001
000290	4780 782A		00A3A	338	BZ ERROR20	STANDARD PROC IDENTIFIER	00307001
0002							

Loc	Object Code	Addr1	Addr2	Stnt	Source Statement	X390 3.1.04	2012/08/17 13.21	
** TXA533W USING range overlaps prior USING at statement 318.								
** TXA301I Record 340 in SYSD.ALGOLFRT.ASM(IHIGPR)								
0002F0	0000			374	*		00341001	
0002F2	0000			375	DC	H'0'	00342001	
0002F4	4700 0000			376	DC	H'0'	00343001	
			00000	377	NOP	0	00344001	
				378	*		00345001	
0002F8	41D0 F018		00308	379	OUTPUTTH	LA R13, SAVOUTP	00346001	
				380	DROP	R15	00347001	
0002FC	98E7 D00C		0000C	381	LM	R14, R7, 12(R13)	00348001	
000300	989C D038		00038	382	LM	R9, R12, 56(R13)	00349001	
000304	47F0 7140		00350	383	B	OUTPUTAA	00350001	
				384	*		00351001	
000308	0000000000000000			385	SAVOUTP	DC 18F'0'	00352001	
				386	*		00353001	
				387	*****			00354001
				388	*		00355001	
000350	9101 76AB	008BB		389	OUTPUTAA	TM PARTST, X'01'	00356001	
000354	4780 7156		00366	390	BZ	OUTPUT25	00357001	
000358	412C 0090		00090	391	LA	R2, FCTVALST(R12)	00358001	
00035C	1928			392	CR	R2, R8	00359001	
00035E	4770 782A		00A3A	393	BNE	ERROR20	00360001	
000362	9200 76AB	008BB		394	MVI	PARTST, X'00'	00361001	
000366	1899			395	OUTPUT25	SR R9, R9	00362001	
000368	9103 501A		0001A	396	TM	TYP, X'03'	00363001	
00036C	4740 7168		00378	397	BM	OUTPUT3	00364001	
000370	4190 9001		00001	398	LA	R9, 1(, R9)	00365001	
000374	47F0 7184		00394	399	B	OUTPUT5	00366001	
				400	*		00367001	
000378	9101 501A	0001A		401	OUTPUT3	TM TYP, X'01'	00368001	
00037C	4780 7178		00388	402	BZ	OUTPUT4	00369001	
000380	4190 9004		00004	403	OUTPUT3A	LA R9, 4(, R9)	00370001	
000384	47F0 7184		00394	404	B	OUTPUT5	00371001	
				405	*		00372001	
000388	9120 C0C2	000C2		406	OUTPUT4	TM OPTSW(R12), X'20'	00373001	
00038C	4710 7170		00380	407	BO	OUTPUT3A	00374001	
000390	4190 9008		00008	408	LA	R9, 8(, R9)	00375001	
				409	*		00376001	
000394	5840 5004		00004	410	OUTPUT5	L R4, R	00377001	
000398	1824			411	LR	R2, R4	00378001	
00039A	1A29			412	AR	R2, R9	00379001	
00039C	5920 5010		00010	413	C	R2, BE	00380001	
0003A0	4720 783C		00A4C	414	BH	ERROR38	00381001	
0003A4	0690			415	OUTPUT51	BCTR R9, 0	00382001	
0003A6	4490 7812		00A22	416	EX	R9, OUTINMOV	00383001	
0003AA	4190 9001		00001	417	LA	R9, 1(, R9)	00384001	
0003AE	1A49			418	AR	R4, R9	00385001	
0003B0	5040 5004		00004	419	ST	R4, R	00386001	
0003B4	9200 76A9	008B9		420	MVI	RECOI, X'00'	00387001	
0003B8	58D0 70FC		0030C	421	L	R13, SAVOUTP+4	00388001	
0003BC	98EC D00C		0000C	422	LM	R14, R12, 12(R13)	00389001	
		R:8 00210		423	USING	IHIGPROT, R8	00390001	
** TXA531W Prior USING at statement 318 overridden by this USING.								
** TXA301I Record 390 in SYSD.ALGOLFRT.ASM(IHIGPR)								
0003C0	58D0 86F8		00908	424	L	R13, SAVEOI+4	00391001	
				425	DROP	R8	00392001	
0003C4	47F0 F008		00008	426	B	8(, R15)	00393001	
				427	*		00394001	



Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
** TXA301I Record 431 in SYSD.ALGOLFRT.ASM(IHIGPR)						
				465 *		00432001
				466 IHIGPRGT	IHIENTRY 'IHIGPRGT LEVEL 2.1 &SYSDATE &SYSTIME'	00433001
				467+*		01-IHIEN
0003E4	47F0 F026		00026	468+IHIGPRGT B	38(,R15) BRANCH AROUND ID	01-IHIEN
0003E8	21			469+ DC	AL1(33) LENGTH OF IDENTIFIER	01-IHIEN
0003E9	C9C8C9C7D7D9C7E3			470+ DC	CL33'IHIGPRGT LEVEL 2.1 08/17/12 13.21'	+01-IHIEN
				+	IDENTIFIER	01-IHIEN
				471 *		00434001
00040A	50D0 F4DC		008C0	472 ST	R13,SAVEPG+4	00435001
00040E	41D0 F4D8		008BC	473 LA	R13,SAVEPG	00436001
				474 *		00437001
				475 SAVE	(14,12)	00438001
000412				476+ DS	0H	01-SAVE
000412	90EC D00C		0000C	477+ STM	14,12,12(13)	01-SAVE
				478 *		00439001
				479 DROP	R15	00440001
000416	187F			480 LR	R7, R15	00441001
		R:7 003E4		481 USING	IHIGPRGT, R7	00442001
000418	58C0 74DC		008C0	482 L	R12,SAVEPG+4	00443001
00041C	50D0 719C		00580	483 ST	R13,SAVEGET+4	00444001
000420	41D0 7198		0057C	484 LA	R13,SAVEGET	00445001
000424	585C 00AC		000AC	485 L	R5,ADSTAB(R12)	00446001
000428	5850 5000		00000	486 L	R5,0(,R5)	00447001
00042C	4160 0010		00010	487 LA	R6,16	00448001
		R:5 00000		488 USING	PGCF, R5	00449001
000430	9101 74D4		008B8	489 TM	RECPG, X'01'	00450001
000434	4710 7674		00A58	490 BO	ERROR43	00451001
000438	9601 74D4		008B8	491 OI	RECPG, X'01'	00452001
00043C	9180 501B		0001B	492 TM	PG, PG0	00453001
000440	4780 764A		00A2E	493 BZ	ERROR10	00454001
000444	5880 5000		00000	494 L	R8,ADCB	00455001
		R:8 00000		495 USING	IHADCB, R8	00456001
000448	9140 501B		0001B	496 TM	PG, PG1	00457001
00044C	4710 709C		00480	497 BO	GET1	00458001
				498 *		00459001
				499 CHECK	DECB	00460001
000450	4110 8058		00058	500+ LA	1,DECB	02-IHBIN
000454	58E0 1008		00008	501+ L	14,8(0,1)	01-CHECK
000458	58F0 E034		00034	502+ L	15,52(0,14)	01-CHECK
00045C	05EF			503+ BALR	14,15	01-CHECK
				504 *		00461001
				505 NOTE	(R8)	00462001
00045E	1818			506+ LR	1,R8	02-IHBIN
000460	58F0 1054		00054	507+ L	15,84(0,1)	01-NOTE
000464	05EF			508+ BALR	14,15	01-NOTE
				509 *		00463001
000466	5010 5014		00014	510 ST	R1,NOTEADR	00464001
				511 *		00465001
				512 *		00466001
				513 *		00467001
00046A	9640 501B		0001B	514 OI	PG, PG1	00468001
00046E	4150 5004		00004	515 LA	R5,4(,R5)	00469001
000472	58FC 011C		0011C	516 L	R15,IORLST(R12)	00470001
000476	58FF 0018		00018	517 L	R15,EN(R15)	00471001
00047A	05EF			518 BALR	R14,R15	00472001
00047C	4B50 763C		00A20	519 SH	R5,='4'	00473001
				520 *		00474001
				521 *	EVALUATE IDENTIFICATION NUMBER FIRST PARAMETER	00475001
				522 *		00476001
000480	5810 74F0		008D4	523 GET1	L R1,SAVEPG+24	00477001
000484	BF2F 1000		00000	524 ICM	R2,B'1111',0(R1)	00478001
000488	4720 70CA		004AE	525 BP	GET2	00479001
00048C	9120 C0C2		000C2	526 TM	OPTSW(R12),X'20'	00480001
000490	4710 70B8		0049C	527 BO	GET11	00481001
000494	6800 2000		00000	528 LD	FPR0,0(,R2)	00482001
000498	47F0 70BC		004A0	529 B	GET11A	00483001
				530 *		00484001
00049C	7800 2000		00000	531 GET11	LE FPR0,0(,R2)	00485001
0004A0	58FC 011C		0011C	532 GET11A	L R15,IORLST(R12)	00486001
0004A4	58FF 0000		00000	533 L	R15,CI(R15)	00487001
0004A8	05EF			534 BALR	R14,R15	00488001
0004AA	47F0 70CE		004B2	535 B	GET2A	00489001
				536 *		00490001
0004AE	5800 2000		00000	537 GET2	L R0,0(,R2)	00491001
0004B2	1200			538 GET2A	LTR R0,R0	00492001
0004B4	4740 766E		00A52	539 BM	ERROR39	00493001
0004B8	5900 7634		00A18	540 C	R0,TWOP16	00494001
0004BC	47B0 766E		00A52	541 BNL	ERROR39	00495001
0004C0	4000 5018		00018	542 STH	R0,S	00496001
0004C4	5840 500C		0000C	543 L	R4,BB	00497001
0004C8	4140 400C		0000C	544 LA	R4,12(,R4)	00498001
0004CC	5040 5004		00004	545 ST	R4,R	00499001
				546 *		00500001
				547 *	EXAMINE NOTTAB TO FIND AN ENTRY FOR S	00501001
				548 *		00502001
0004D0	589C 00B0		000B0	549 GET12	L R9,ANOTTAB(R12)	00503001
0004D4	18A9			550 LA	R10,R9	00504001
0004D6	41A0 A008		00008	551 GET3	LA R10,8(,R10)	00505001
0004DA	59A0 9000		00000	552 C	R10,0(,R9)	00506001
0004DE	4780 7650		00A34	553 BE	ERROR14	00507001
0004E2	1826			554 LR	R2,R6	00508001
0004E4	4920 A000		00000	555 CH	R2,0(,R10)	00509001
0004E8	4770 70F2		004D6	556 BNE	GET3	00510001
0004EC	D501 5018	A002 00018	00002	557 CLC	S(2),2(R10)	00511001
0004F2	4770 70F2		004D6	558 BNE	GET3	00512001

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
0004F6	4100 A004		00004	559 *		FOUND AN ENTRY IN NOTTAB FOR S 00513001
0004FA	1818			560	LA R0,4(,R10)	ADDR OF NOTE INFORMATION 00514001
				561	LR R1,R8	DCB ADDR TO R1 00515001
				562 *		00516001
				563	POINT (1),(0)	00517001
0004FC	58F0 1054		00054	564+	L 15,84(0,1)	LOAD POINT RTN ADDR 01-POINT
000500	45EF 0004		00004	565+	BAL 14,4(15,0)	LINK TO POINT ROUTINE 01-POINT
				566 *		00518001
000504	5830 500C		0000C	567	L R3,BB	00519001
				568 *		00520001
				569	READ DECB,SF,(R8),(R3),MF=E	READ A BLOCK TO BUFFER 00521001
000508	4110 8058		00058	570+	LA 1,DECB	LOAD DECB ADDRESS 02-IHBRD
00050C	9280 1005	00005		571+	MVI 5(1),X'80'	SET TYPE FIELD 02-IHBRD
000510	5081 0008		00008	572+	ST R8,8(1,0)	STORE DCB ADDRESS 02-IHBRD
000514	5031 000C		0000C	573+	ST R3,12(1,0)	STORE AREA ADDRESS 02-IHBRD
000518	58F1 0008		00008	574+	L 15,8(1,0)	LOAD DCB ADDRESS 02-IHBRD
00051C	58F0 F030		00030	575+	L 15,48(0,15)	LOAD RDWR ROUTINE ADDR 02-IHBRD
000520	05EF			576+	BALR 14,15	LINK TO RDWR ROUTINE 02-IHBRD
				577 *		00522001
				578	CHECK DECB	CHECK THIS READ 00523001
000522	4110 8058		00058	579+	LA 1,DECB	LOAD PARAMETER REG 1 02-IHBRD
000526	58E0 1008		00008	580+	L 14,8(0,1)	PICK UP DCB ADDR 01-CHECK
00052A	58F0 E034		00034	581+	L 15,52(0,14)	LOAD CHECK ROUTINE ADDR 01-CHECK
00052E	05EF			582+	BALR 14,15	LINK TO CHECK ROUTINE 01-CHECK
				583 *		00524001
000530	D501 3008	5018 00008	00018	584	CLC 8(2,R3),S	TEST IDENTIFICATION NUMBER 00525001
000536	4770 7650		00A34	585	BNE ERROR14	00526001
00053A	D200 501A	300A 0001A	0000A	586	MVC TYP(1),10(R3)	TYP INFORMATION TO PGCF 00527001
000540	4A30 3000		00000	587	AH R3,0(,R3)	BB+BL 00528001
000544	5030 5008		00008	588	ST R3,RE	EFFECTIVE END OF RECORD CURRENT 00529001
000548	5810 74F0		008D4	589	L R1,SAVEPG+24	00530001
00054C	58D0 719C		00580	590	L R13,SAVEGET+4	RESTORE PROGRAMS REGISTER 00531001
000550	98EC D00C		0000C	591	LM R14,R12,12(R13)	00532001
000554	5880 1004		00004	592	L R8,4(,R1)	ADDR OF LIST PROCEDURE 00533001
	R:F 003E4			593	USING IHIGPRGT,R15	00534001
** TXA531W Prior USING at statement 481 overridden by this USING.						
** TXA301I Record 534 in SYSD.ALGOLFRT.ASM(IHIGPR)						
000558	58D0 F4DC		008C0	594	L R13,SAVEPG+4	00535001
				595	DROP R15	00536001
00055C				596	CNOP 0,4	00537001
00055C	45FD 00E0		000E0	597	BAL R15,PROLOG(R13)	00538001
				598 *		00539001
000560	00000726			599	DC A(THUNKIN)	00540001
000564	8880			600	DC X'8880'	TYP INFORMATION FOR STANDARD 00541001
				601 *		PROCEDURE 00542001
000566	0001			602	DC H'1'	00543001
				603 *		00544001
	R:F 00568			604	USING *,R15	00545001
** TXA533W USING range overlaps prior USING at statement 481.						
** TXA301I Record 545 in SYSD.ALGOLFRT.ASM(IHIGPR)						
000568	41D0 F354		008BC	605	LA R13,SAVEPG	00546001
00056C	98EC D00C		0000C	606	LM R14,R12,12(R13)	00547001
	R:F 003E4			607	USING IHIGPRGT,R15	00548001
** TXA531W Prior USING at statement 481 overridden by this USING.						
** TXA301I Record 548 in SYSD.ALGOLFRT.ASM(IHIGPR)						
000570	58D0 F4DC		008C0	608	L R13,SAVEPG+4	00549001
000574	9200 F4D4	008B8		609	MVI RECPG,X'00'	CLEAR FLAG BIT 00550001
000578	07FE			610	BR R14	00551001
				611 *		00552001
00057A	0000					
00057C	0000000000000000			612	SAVEGET DC 18F'0'	00553001
				613	DROP R15	00554001
				614 *		00555001
				615	*****	00556001
				616 *		00557001
				617 *	IHIGPRIT - INPUT IS ACTUAL PROCEDURE TO LIST	00558001
				618 *	EVALUATED BY THUNKIN	00559001
				619 *		00560001
				620	*****	00561001
				621 *		00562001
				622 *	REGISTER CONTENTS ON ENTRY POINT IHIGPRIT	00563001
				623 *		00564001
				624 *	R13	R13 -> FSA 00565001
				625 *	R8	R8 -> ENTRY POINT IHIGPRIT 00566001
				626 *	R15	R15 -> A THUNKFIELD 00567001
				627 *		00568001
				628 *	REGISTER CONTENTS ON ENTRY POINT INPUTTH	00569001
				629 *		00570001
				630 *	R15	-> INPUTTH 00571001
				631 *	R8	-> PARAMETER WHERE TO 00572001
				632 *		STORE VALUE FROM BUFFER 00573001
	R:8 005C4			633	USING IHIGPRIT,R8	00574001
** TXA533W USING range overlaps prior USING at statement 481.						
** TXA301I Record 574 in SYSD.ALGOLFRT.ASM(IHIGPR)						
				634 *		00575001
				635	IHIGPRIT IHIENTRY 'IHIGPRIT LEVEL 2.1 &SYSDATE &SYSTIME',REG=R8	00576001
				636+		01-IHIEN 01-IHIEN
0005C4	47F0 8026		00026	637+	IHIGPRIT B 38(,R8)	BRANCH AROUND ID 01-IHIEN
0005C8	21			638+	DC AL1(33)	LENGTH OF IDENTIFIER 01-IHIEN
0005C9	C9C8C9C7D7D9C9E3			639+	DC CL33'IHIGPRIT LEVEL 2.1 08/17/12 13.21'	+01-IHIEN 01-IHIEN
				+		IDENTIFIER 01-IHIEN
				640 *		00577001
0005EA	50D0 8344		00908	641	ST R13,SAVEOI+4	00578001
0005EE	41D0 8340		00904	642	LA R13,SAVEOI	00579001
				643 *		00580001
				644	SAVE (14,12)	00581001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0005F2				645+	DS	0H	01-SAVE
0005F2	90EC D00C		0000C	646+	STM	14,12,12(13)	01-SAVE
				647 *			SAVE REGISTERS
0005F6	50D0 80B8		0067C	648	ST	R13,SAVEIN+4	00582001
0005FA	1878			649	LR	R7, R8	00583001
				650	DROP	R8	00584001
		R:7	005C4	651	USING	IHIGPRIT,R7	00585001
0005FC	58C0 7344		00908	652	L	R12,SAVEOI+4	00586001
000600	41D0 70B4		00678	653	LA	R13,SAVEIN	00587001
000604	585C 00AC		000AC	654	L	R5,ADSTAB(R12)	00588001
000608	5850 5000		00000	655	L	R5,0(,R5)	00589001
00060C	4160 0010		00010	656	LA	R6,16	00590001
		R:5	00000	657	USING	PGCF,R5	DSNR = 16 FOR SYSUT2
000610	9101 72F5		008B9	658	TM	RECOI,X'01'	DSECT ADDRESSABILITY
000614	4710 7494		00A58	659	BO	ERROR43	TEST IF RECURSIVELY
000618	9601 72F5		008B9	660	OI	RECOI,X'01'	YES
00061C	9501 F007		00007	661	CLI	7(R15),X'01'	SET FLAG BIT
000620	4770 747C		00A40	662	BNE	ERROR21	TEST NUMBER OF PARAMETERS
				663 *			NUMBER DOES NOT CORRESPOND
000624	9108 F004		00004	664	TM	4(R15),X'08'	BETWEEN DECLARATION AND CALL
000628	4710 7476		00A3A	665	BO	ERROR20	ASSIGNMENT POSSIBLE ?
00062C	D200 72F6	F005	008BA	666	MVC	TPC(1),5(R15)	00599001
000632	9403 72F6		008BA	667	NI	TPC,X'03'	00600001
000636	D500 501A	72F6	0001A	668	CLC	TYP(1),TYP	00601001
00063C	4770 7476		00A3A	669	BNE	ERROR20	00602001
				670 *			PGCF
				671	*****		00604001
				672 *			00605001
				673 *	LINKING TO ROUTINE CALLING ACTUAL PARAMETER		00606001
				674 *			00607001
				675	SAVE	(14,12)	00608001
000640				676+	DS	0H	00609001
000640	90EC D00C		0000C	677+	STM	14,12,12(13)	00610001
				678 *			00611001
000644	58D0 70B8		0067C	679	L	R13,SAVEIN+4	00612001
000648	D203 7458	F000	00A1C	680	MVC	ADRTHUNK(4),0(R15)	00613001
00064E	98EC D00C		0000C	681	LM	R14,R12,12(R13)	00614001
		R:8	005C4	682	USING	IHIGPRIT,R8	00615001
** TXA531W Prior USING at statement 651 overridden by this USING.							
** TXA301I Record 615 in SYSD.ALGOLFRT.ASM(IHIGPR)							
000652	58D0 8344		00908	683	L	R13,SAVEOI+4	00616001
000656				684	CNOP	2,4	00617001
000656	D201 809E	A008	00662	685	MVC	*+12(2),8(R10)	00618001
00065C	45F0 8430		009F4	686	BAL	R15,CAP1GP	00619001
				687	DROP	R8	00620001
		R:F	00660	688	USING	*,R15	00621001
** TXA533W USING range overlaps prior USING at statement 651.							
** TXA301I Record 621 in SYSD.ALGOLFRT.ASM(IHIGPR)							
				689 *			00622001
000660	0000			690	DC	H'0'	00623001
000662	0000			691	DC	H'0'	00624001
000664	4700 0000		00000	692	NOP	0	00625001
				693 *			00626001
000668	41D0 F018		00678	694	INPUTTH	LA R13,SAVEIN	00627001
				695	DROP	R15	00628001
00066C	98E7 D00C		0000C	696	LM	R14,R7,12(R13)	00629001
000670	989C D038		00038	697	LM	R9,R12,56(R13)	00630001
000674	47F0 70FC		006C0	698	B	INPUTTAA	00631001
				699 *			00632001
000678	0000000000000000			700	SAVEIN	DC 18F'0'	00633001
				701 *			00634001
				702	* * * * *		00635001
				703 *			00636001
0006C0	5830 500C		0000C	704	INPUTTAA	L R3,BB	00637001
0006C4	4A30 3000		00000	705	AH	R3,0(,R3)	00638001
0006C8	5930 5004		00004	706	C	R3,R	00639001
0006CC	47D0 7488		00A4C	707	BNH	ERROR38	00640001
0006D0	1899			708	SR	R9,R9	00641001
0006D2	9103 501A		0001A	709	TM	TYP,X'03'	00642001
0006D6	4740 711E		006E2	710	BM	INPUT1	00643001
0006DA	4190 9001		00001	711	LA	R9,1(,R9)	00644001
0006DE	47F0 713A		006FE	712	B	INPUT3	00645001
				713 *			00646001
0006E2	9101 501A		0001A	714	INPUT1	TM TYP,X'01'	00647001
0006E6	4780 712E		006F2	715	BZ	INPUT2	00648001
0006EA	4190 9004		00004	716	INPUT1AA	LA R9,4(,R9)	00649001
0006EE	47F0 713A		006FE	717	B	INPUT3	00650001
				718 *			00651001
0006F2	9120 C0C2		000C2	719	INPUT2	TM OPTSW(R12),X'20'	00652001
0006F6	4710 7126		006EA	720	BO	INPUT1AA	00653001
0006FA	4190 9008		00008	721	LA	R9,8(,R9)	00654001
				722 *			00655001
0006FE	5840 5004		00004	723	INPUT3	L R4,R	00656001
000702	0690			724	INPUT31	BCTR R9,0	00657001
000704	4490 7464		00A28	725	EX	R9,INOUTMOV	00658001
000708	4190 9001		00001	726	LA	R9,1(,R9)	00659001
00070C	1A49			727	AR	R4,R9	00660001
00070E	5040 5004		00004	728	ST	R4,R	00661001
000712	9200 72F5		008B9	729	MVI	RECOI,0	00662001
000716	58D0 70B8		0067C	730	L	R13,SAVEIN+4	00663001
00071A	98EC D00C		0000C	731	LM	R14,R12,12(R13)	00664001
		R:8	005C4	732	USING	IHIGPRIT,R8	00665001
** TXA531W Prior USING at statement 651 overridden by this USING.							
** TXA301I Record 665 in SYSD.ALGOLFRT.ASM(IHIGPR)							
00071E	58D0 8344		00908	733	L	R13,SAVEOI+4	00666001
				734	DROP	R8	00667001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000722	47F0 F008		00008	735	B	8(,R15)	00668001
				736	*		00669001
				737	*	THUNK IN	00670001
				738	*		00671001
				739	*	LIST PROCEDURE INVOKE CALL ACTUAL PARAMETER IN IHGFS	00672001
				740	*	AND THIS CALL THUNKIN, WHICH ASSIGN INPUT AS ACTUAL	00673001
				741	*	PROCEDURE TO LIST	00674001
				742	*		00675001
000726				743	CNOP	2,4	00676001
000726	05F0			744	THUNKIN BALR	R15,0	00677001
000728	5880 F008		00008	745	L	R8,8(,R15)	00678001
00072C	47F0 F00C		0000C	746	B	12(,R15)	00679001
				747	*		00680001
000730	000005C4			748	DC	A(IHIGPRIT)	00681001
				749	*	INFORMATION CHARACTERISE OUTPUT	00682001
000734	9200 D0A9		000A9	750	MVI	PROLPBN(FSB),X'00'	00683001
000738	90BC D0A0		000A0	751	STM	PBT,LAT,PROLREG(FSB)	00684001
00073C	47F0 D0D8		000D8	752	B	CAP2(,FSB)	00685001
				753	*		00686001
				754	*	OPEN DATASET SYSUT2	00687001
				755	*		00688001
				756	*	RESERVE MAIN FOR ONE DCB AND ONE DECB, ONE I/O BUFFER	00689001
				757	*	AND FOR NOTTAB IF NOT CREATED BEFORE	00690001
				758	*		00691001
				759	IHIGPROP SAVE	(14,12),, 'IHIGPROP LEVEL 2.1 &SYSDATE &SYSTIME'	00692001
000740	47F0 F026		00026	760+	IHIGPROP B	38(0,15)	01-SAVE
000744	21			761+	DC	AL1(33)	01-SAVE
000745	C9C8C9C7D7D9D6D7			762+	DC	CL32'IHIGPROP LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000765	F1			763+	DC	CL1'1'	01-SAVE
000766	90EC D00C		0000C	764+	STM	14,12,12(13)	01-SAVE
				765	*	SAVE REGISTERS	00693001
00076A	187F			766	LR	R7,R15	00694001
		R:7 00740		767	USING	IHIGPROP,R7	00695001
		R:8 00000		768	USING	IHADCB,R8	00696001
00076C	50D0 7210		00950	769	ST	R13,SAVEOP+4	00697001
000770	41D0 720C		0094C	770	LA	R13,SAVEOP	00698001
000774	4120 70F0		00830	771	LA	R2,IHIGPRCL	00699001
000778	589C 011C		0011C	772	L	R9,IORLST(R12)	00700001
00077C	5890 901C		0001C	773	L	R9,GP(,R9)	00701001
000780	5020 9000		00000	774	ST	R2,0(,R9)	00702001
000784	BF2F C0B0		000B0	775	ICM	R2,B'1111',ANOTTAB(R12)	00703001
000788	4720 706E		007AE	776	BP	OPGP1	00704001
00078C	4100 0400		00400	777	LA	R0,1024	00705001
				778	*		00706001
				779		GETMAIN R,LV=(0)	00707001
				780+		OS/VS2 RELEASE 4 VERSION -- 10/21/75	01-GETMA
000790	4510 7054		00794	781+	BAL	1,*+4	01-GETMA
000794	0A0A			782+	SVC	10	01-GETMA
				783	*	INDICATE GETMAIN	00708001
						ISSUE GETMAIN SVC	00709001
000796	501C 00B0		000B0	784	ST	R1,ANOTTAB(R12)	00710001
00079A	1821			785	LR	R2,R1	00711001
00079C	1891			786	LR	R9,R1	00712001
00079E	4190 9008		00008	787	LA	R9,8(,R9)	00713001
0007A2	5090 2000		00000	788	ST	R9,0(,R2)	00714001
0007A6	4190 93F8		003F8	789	LA	R9,1016(,R9)	00715001
0007AA	5090 2004		00004	790	ST	R9,4(,R2)	00716001
				791	*	STORE POINTER NXEF IN NOTTAB	00717001
0007AE	4100 006C		0006C	792	OPGP1	LA R0,DCBAREAL	00718001
				793	*	GET AREA FOR DCB AND DECB	00719001
				794		GETMAIN R,LV=(0)	01-GETMA
				795+		OS/VS2 RELEASE 4 VERSION -- 10/21/75	01-GETMA
0007B2	4510 7076		007B6	796+	BAL	1,*+4	01-GETMA
0007B6	0A0A			797+	SVC	10	01-GETMA
				798	*	INDICATE GETMAIN	00720001
						ISSUE GETMAIN SVC	00721001
0007B8	5010 5000		00000	799	ST	R1,ADCB	00722001
0007BC	1881			800	LR	R8,R1	00723001
				801	*		00724001
				802	*	TRANSFER DCBMODEL	00725001
				803	*		00726001
0007BE	D257 8000 7254 00000		00994	804	MVC	0(DCBMODLN,R8),DCBMODEL	00727001
0007C4	5810 C11C		0011C	805	L	R1,IORLST(,R12)	00728001
0007C8	5810 1020		00020	806	L	R1,ER(,R1)	00729001
0007CC	5010 8038		00038	807	ST	R1,DCBSYNAD	00730001
				808	*		00731001
				809		OPEN ((R8),(OUTIN))	01-OPEN
0007D0				810+	CNOP	0,4	01-OPEN
0007D0	4510 7098		007D8	811+	BAL	1,*+8	01-OPEN
0007D4	00000000			812+	DC	A(0)	01-OPEN
0007D8	5081 0000		00000	813+	ST	R8,0(1,0)	01-OPEN
0007DC	9287 1000		00000	814+	MVI	0(1),135	01-OPEN
0007E0	0A13			815+	SVC	19	01-OPEN
				816	*	ISSUE OPEN SVC	00732001
0007E2	9110 8030		00030	817	TM	DCBOFLGS,DCBOFOPN	00733001
0007E6	4710 70B0		007F0	818	BO	OPGP2	00734001
0007EA	18DC			819	LR	R13,R12	00735001
0007EC	47FC 0270		00270	820	B	FSAERR+41*4(R12)	00736001
				821	*		00737001
0007F0	5800 5010		00010	822	OPGP2	L R0,BE	00738001
				823	*	BE=BUFFER LENGTH	00739001
				824		GETMAIN R,LV=(0)	00740001
				825+		OS/VS2 RELEASE 4 VERSION -- 10/21/75	01-GETMA
0007F4	4510 70B8		007F8	826+	BAL	1,*+4	01-GETMA
0007F8	0A0A			827+	SVC	10	01-GETMA
				828	*	INDICATE GETMAIN	00741001
						ISSUE GETMAIN SVC	00742001
0007FA	5010 500C		0000C	829	ST	R1,BB	00743001
0007FE	5A10 5010		00010	830	A	R1,BE	00744001
						BB+BE TO BE	00745001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000802	5010 5010		00010	831	ST	R1, BE	BE DEFINE BUFFER END 00744001
000806	9680 501B	0001B		832	OI	PG, PG0	PG0=1 DATASET OPEN 00745001
00080A	58D0 7210		00950	833	L	R13,SAVEOP+4	00746001
				834	*		00747001
				835		RETURN (14,12)	00748001
00080E	98EC D00C		0000C	836+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
000812	07FE			837+	BR	14	RETURN 01-RETUR
				838	*		00749001
				839	*	OPEN EXIT ROUTINE	00750001
				840	*		00751001
000814	4820 803E		0003E	841	IHIGPRDX LH	R2,DCBBLKSI	DCBBLKSI = 0 ? 00752001
000818	1222			842	LTR	R2,R2	00753001
00081A	4780 70E6		00826	843	BZ	EXIT1	BLKSIZE = 0 00754001
00081E	5020 5010		00010	844	ST	R2, BE	BLKSIZE NOT ZERO 00755001
000822	47F0 70EE		0082E	845	B	EXIT1+8	00756001
				846	*		00757001
000826	5820 5010		00010	847	EXIT1 L	R2, BE	BE=2048 TO BLKSIZE 00758001
00082A	4020 803E		0003E	848	STH	R2,DCBBLKSI	00759001
				849	*		00760001
				850		RETURN	00761001
00082E	07FE			851+	BR	14	RETURN 01-RETUR
				852	*		00762001
				853	*	CLOSE DATASET SYSUT2	00763001
				854	*		00764001
				855	*	RELEASE DCB, DECB AND I/O BUFFER	00765001
				856	*	CALLED FROM IHGIOR - CLOSEPE	00766001
				857	*		00767001
				858	IHIGPRCL SAVE	(14,12),, 'IHIGPRCL LEVEL 2.1 &SYSDATE &SYSTIME'	00768001
000830	47F0 F026		00026	859+	IHIGPRCL B	38(0,15)	BRANCH AROUND ID 01-SAVE
000834	21			860+	DC	AL1(33)	LENGTH OF IDENTIFIER 01-SAVE
000835	C9C8C9C7D7D9C3D3			861+	DC	CL32 'IHIGPRCL LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000855	F1			862+	DC	CL1 '1'	IDENTIFIER 01-SAVE
000856	90EC D00C		0000C	863+	STM	14,12,12(13)	SAVE REGISTERS 01-SAVE
				864	*		00769001
00085A	187F			865	LR	R7,R15	00770001
		R:7 00830		866	USING	IHIGPRCL, R7	00771001
00085C	50D0 7120		00950	867	ST	R13,SAVEOP+4	00772001
000860	41D0 711C		0094C	868	LA	R13,SAVEOP	00773001
000864	5850 C0AC		000AC	869	L	R5,ADSTAB(,R12)	00774001
000868	5850 5000		00000	870	L	R5,0(,R5)	00775001
00086C	4160 0010		00010	871	LA	R6,16	00776001
000870	5880 5000		00000	872	L	R8,ADCB	00777001
				873	*		00778001
				874		CLOSE ((R8))	00779001
000874				875+	CNOP	0,4	ALIGN LIST TO FULLWORD 01-CLOSE
000874	4510 704C		0087C	876+	BAL	1,*+8	LOAD REG1 W/LIST ADDR 01-CLOSE
000878	00000000			877+	DC	A(0)	OPTION AND DCB ADDRESS 01-CLOSE
00087C	5081 0000		00000	878+	ST	R8,0(1,0)	STORE DCB ADDRESS 01-CLOSE
000880	9280 1000		00000	879+	MVI	0(1),128	MOVE IN OPTION BYTE 01-CLOSE
000884	0A14			880+	SVC	20	ISSUE CLOSE SVC 01-CLOSE
				881	*		00780001
000886	5810 500C		0000C	882	L	R1,BB	BUFFER BEGIN ADDR TO R1 00781001
00088A	5800 5010		00010	883	L	R0, BE	00782001
00088E	1B01			884	SR	R0,R1	BUFFER LENGTH TO R0 00783001
				885	*		00784001
				886	*	FREEMAIN FOR RECORD BUFFER	00785001
				887	*		00786001
				888		FREEMAIN R, LV=(0), A=(1)	00787001
				889+		OS/V52 RELEASE 3 VERSION -- 10/25/74	01-FREEM
000890	4110 1000		00000	890+	LA	1,0(0,1)	CLEAR HI ORDER BYTE 01-FREEM
000894	0A0A			891+	SVC	10	ISSUE FREEMAIN SVC 01-FREEM
				892	*		00788001
				893	*	FREEMAIN FOR DCB AND DECB	00789001
				894	*		00790001
				895		FREEMAIN R, LV=DCBAREAL, A=ADCB	00791001
				896+		OS/V52 RELEASE 3 VERSION -- 10/25/74	01-FREEM
000896	0700			897+	CNOP	0,4	01-FREEM
000898	47F0 7070		008A0	898+	B	*+8	BRANCH AROUND LENGTH 01-FREEM
00089C	0000006C			899+	DC	A(DCBAREAL)	LENGTH 01-FREEM
0008A0	5800 706C		0089C	900+	L	0,*-4	LOAD SP AND LV 01-FREEM
0008A4	5810 5000		00000	901+	L	1,ADCB	LOAD AREA ADDRESS 01-FREEM
0008A8	4110 1000		00000	902+	LA	1,0(0,1)	CLEAR HI ORDER BYTE 01-FREEM
0008AC	0A0A			903+	SVC	10	ISSUE FREEMAIN SVC 01-FREEM
				904	*		00792001
0008AE	58D0 7120		00950	905	L	R13,SAVEOP+4	00793001
				906	*		00794001
				907		RETURN (14,12)	00795001
0008B2	98EC D00C		0000C	908+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
0008B6	07FE			909+	BR	14	RETURN 01-RETUR
				910	*		00796001
0008B8	00			911	RECPG	DC X'00'	00797001
0008B9	00			912	RECOI	DC X'00'	00798001
0008BA	00			913	TPYC	DC X'00'	00799001
0008BB	00			914	PARTST	DC X'00'	00800001
0008BC	0000000000000000			915	SAVEPG	DC 18F'0'	00801001
000904	0000000000000000			916	SAVEOI	DC 18F'0'	00802001
00094C	0000000000000000			917	SAVEOP	DC 18F'0'	00803001
				918	*		00804001
				919	DCBMODEL DCB	DSORG=PS,MACRF=(RP,WP),DDNAME=SYSUT2,RECFM=V,NCP=1,EXLST=ADCBEXIT	X00805001 00806001
				921+	*	DATA CONTROL BLOCK	01-DCB
				922+	*		01-DCB
000994				923+	DCBMODEL DC	0F'0'	ORIGIN ON WORD BOUNDARY 01-DCB

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				925+*		DIRECT ACCESS DEVICE INTERFACE	01-DCB
000994	0000000000000000			927+	DC	BL16'0'	01-DCB
0009A4	00000000			928+	DC	A(0)	01-DCB
				930+*		COMMON ACCESS METHOD INTERFACE	01-DCB
0009A8	00			932+	DC	AL1(0)	01-DCB
0009A9	000001			933+	DC	AL3(1)	01-DCB
0009AC	0000			934+	DC	AL2(0)	01-DCB
0009AE	4000			935+	DC	BL2'010000000000000'	01-DCB
0009B0	00000001			936+	DC	A(1)	01-DCB
				938+*		FOUNDATION EXTENSION	01-DCB
0009B4	00			940+	DC	BL1'00000000'	01-DCB
0009B5	000001			941+	DC	AL3(1)	01-DCB
0009B8	40			942+	DC	BL1'01000000'	01-DCB
0009B9	0009EC			943+	DC	AL3(ADCBEXIT)	01-DCB
				945+*		FOUNDATION BLOCK	01-DCB
0009BC	E2E8E2E4E3F24040			947+	DC	CL8'SYSUT2'	01-DCB
0009C4	02			948+	DC	BL1'00000010'	01-DCB
0009C5	00			949+	DC	BL1'00000000'	01-DCB
0009C6	2424			950+	DC	BL2'001001000100100'	01-DCB
				952+*		BSAM-BPAM-QSAM INTERFACE	01-DCB
0009C8	00			954+	DC	BL1'00000000'	01-DCB
0009C9	000001			955+	DC	AL3(1)	01-DCB
0009CC	00000001			956+	DC	A(1)	01-DCB
0009D0	0000			957+	DC	H'0'	01-DCB
0009D2	0000			958+	DC	AL2(0)	01-DCB
0009D4	00000000			959+	DC	F'0'	01-DCB
0009D8	00000001			960+	DC	A(1)	01-DCB
0009DC	01			961+	DC	AL1(1)	01-DCB
0009DD	000001			962+	DC	AL3(1)	01-DCB
				964+*		BSAM-BPAM INTERFACE	01-DCB
0009E0	00000001			966+	DC	A(1)	01-DCB
0009E4	0000			967+	DC	H'0'	01-DCB
0009E6	0000			968+	DC	AL2(0)	01-DCB
0009E8	00000001			969+	DC	A(1)	01-DCB
	00058			970	DCBMODLN EQU	*-DCBMODEL	00807001
				971	*		00808001
0009EC				972	DC	0F'0'	00809001
0009EC	85			973	ADCBEXIT DC	X'85'	00810001
0009ED	000814			974	DC	AL3(IHIGPRDX)	00811001
				975	*		00812001
				976	*	EXTERNAL ADDRESSES	00813001
				977	*		00814001
0009F0	00000740			978	AOPENPG DC	A(IHIGPROP)	00815001
				979	*		00816001
				980	* * * * *		00817001
				981	*		00818001
				982	*	THIS ROUTINE IS USED INSTEAD OF CAP1 IN FSA	00819001
				983	*		00820001
				984	* * * * *		00821001
				985	*		00822001
0009F4	0580			986	CAP1GP BALR	R8,0	00823001
	R:8 009F6			987	USING *	R8	00824001
** TXA533W USING range overlaps prior USING at statement 866.							
** TXA301I Record 824 in SYSD.ALGOLFRT.ASM(IHIGPR)							
0009F6	583D 00C8			988	L	R3,RASPT(FSB)	00825001
0009FA	4133 0008			989	LA	R3,8(R3)	00826001
0009FE	593D 00D0			990	C	R3,RASPB(FSB)	00827001
000A02	47B0 8050			991	BNL	ERROR36	00828001
000A06	50A0 3000			992	ST	R10,0(,R3)	00829001
000A0A	50F0 3004			993	ST	R15,4(,R3)	00830001
000A0E	503D 00C8			994	ST	R3,RASPT(FSB)	00831001
000A12	5880 8026			995	L	R8,ADRTTHUNK	00832001
				996	DROP	R8	00833001
000A16	07F8			997	BR	R8	00834001
				998	*		00835001
000A18	00010000			999	TWOP16 DC	F'65536'	00836001
000A1C	00000000			1000	ADRTTHUNK DC	A(0)	00837001
				1001	*		00838001
000A20				1002	LTORG		00839001
000A20	0004			1003		=H'4'	
				1004	*		00840001
000A22	D200 4000 8000 00000 00000			1005	OUTINMOV MVC	0(1,R4),0(R8)	00841001
000A28	D200 8000 4000 00000 00000			1006	INOUTMOV MVC	0(1,R8),0(R4)	00842001
				1007	*		00843001
000A2E	18DC			1008	ERROR10 LR	R13,R12	00844001
000A30	47FC 01F4			1009	B	FSAERR+10*4(R12)	00845001
				1010	*		00846001
000A34	18DC			1011	ERROR14 LR	R13,R12	00847001
				1012	*		00848001
000A36	47FC 0204			1013	B	FSAERR+14*4(R12)	00849001
				1014	*		00850001
000A3A	18DC			1015	ERROR20 LR	R13,R12	00851001
				1016	*		00852001
000A3C	47FC 021C			1017	B	FSAERR+20*4(R12)	00853001
				1018	*		00854001

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000A40	18DC			1019	ERROR21	LR R13,R12	ADDR OF FSA TO R13 00855001
				1020	*		NUMBER OF PARAMETERS DOES NOT 00856001
000A42	47FC 0220		00220	1021		B FSAERR+21*4(R12)	CORRESPOND BETWEEN DECLARATION 00857001
				1022	*		AND CALL 00858001
				1023	*		TOO MANY NESTED BLOCKS, PROCS 00859001
000A46	18DC			1024	ERROR36	LR R13,R12	AND PARAMETER CALLS. INTERNAL 00860001
000A48	47FC 025C		0025C	1025		B FSAERR+36*4(R12)	(RETURN ADDRESS STACK) OVERFLOW 00861001
				1026	*		00862001
000A4C	18DC			1027	ERROR38	LR R13,R12	ADDR OF FSA TO R13 00863001
000A4E	47FC 0264		00264	1028		B FSAERR+38*4(R12)	GET/PUT BUFFER OVERFLOW 00864001
				1029	*		00865001
000A52	18DC			1030	ERROR39	LR R13,R12	ADDRESS OF FSA TO R13 00866001
				1031	*		GET/PUT IDENTIFICATION OUT OF 00867001
000A54	47FC 0268		00268	1032		B FSAERR+39*4(R12)	RANGE 00868001
				1033	*		00869001
				1034	*		00870001
000A58	18DC			1035	ERROR43	LR R13,R12	RECURSIVELY USE OF PUT/GET 00871001
000A5A	47FC 0278		00278	1036		B FSAERR+43*4(R12)	OUTPUT/INPUT 00872001
				1037	*		00873001
000000		00000	0001C	1038	PGCF	DSECT	00874001
000000				1039	ADCB	DS A	00875001
000004				1040	R	DS A	00876001
000008				1041	RE	DS A	00877001
00000C				1042	BB	DS A	00878001
000010				1043	BE	DS A	00879001
000014				1044	NOTEADR	DS A	00880001
000018				1045	S	DS H	00881001
00001A				1046	TYP	DS C	00882001
00001B				1047	PG	DS C	00883001
				1048	*		00884001
				1049	*	MAP DCB	00885001
				1050	*		00886001
				1051		PRINT NOGEN	00887001
				1052	*		00888001
				1053		DCBD DSORG=BS,DEV D=(DA)	00889001
				1560	*		00890001
				1561		PRINT GEN	00891001
				1562	*		00892001
				1563	*	MAP DECB	00893001
				1564	*		00894001
				1565		READ DECB,SF,MF=L	00895001
000058	00000000			1566	DECB	DC F'0'	EVENT CONTROL BLOCK 02-IHBRD
00005C	00			1567		DC X'00'	TYPE FIELD 02-IHBRD
00005D	80			1568		DC X'80'	TYPE FIELD 02-IHBRD
00005E	0000			1569		DC AL2(0)	LENGTH 02-IHBRD
000060	00000000			1570		DC A(0)	DCB ADDRESS 02-IHBRD
000064	00000000			1571		DC A(0)	AREA ADDRESS 02-IHBRD
000068	00000000			1572		DC A(0)	RECORD POINTER WORD 02-IHBRD
				1573	*		00896001
		0006C		1574	DCBAREAL	EQU *-IHADCB	L'I/O CONTROL BLOCKS 00897001
				1575	*		00898001
000000		00000	00120	1576	FSAAREA	DSECT	00899001
				1577		COPY FSAAREA	00900001
				1578	=*		00001001
				1579	=*		00002001
				1580	=*	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				1581	=*		00004001
				1582	=*	STATUS - LEVEL 2.1	00005001
				1583	=*		00006001
				1584	=*		00007001
				1585	=*	COMMON DATA AREA	00008001
				1586	=*		00009001
				1587	=*	FSAAREA	00010001
				1588	=*		00011001
				1589	=*		00012001
				1590	=*		00013001
				1591	=*		00014001
				1592	=*	DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00015001
				1593	=*	MODULES DURING THE EXECUTION	00016001
				1594	=*		00017001
				1595	=*	ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00018001
				1596	=*	SUBROUTINES) BY R12	00019001
		00000		1597	FSAAREA	EQU *	00020001
				1598	=*		00021001
				1599	=*	SAVE AREAS	00022001
				1600	=*		00023001
000000				1601	=	DS 18F	STANDARD SAVE AREA 00024001
		00048		1602	=ASAVE	EQU *-FSAAREA	ALTERNATE SAVE AREA USED BY 00025001
000048				1603	=	DS 18F	CERTAIN SUBROUTINES 00026001
				1604	=*		00027001
				1605	=*		00028001
				1606	=*	MISCELLANEOUS WORK AREAS AND CONSTANTS	00029001
		00090		1607	FCTVALST	EQU *-FSAAREA	TEMPORARY STORAGE FOR 00030001
000090				1608	=	DS D	FUNCTION VALUES 00031001
		00098		1609	=ASTLOC	EQU *-FSAAREA	DISPL FOR ADDR OF STAND LOCTN 00032001
000098	00000090			1610	=	DC A(FSAAREA+FCTVALST)	00033001
		0009C		1611	=BRRST	EQU *-FSAAREA	TEMPORARY SAVE REG BRR 00034001
		0009C		1612	=HW	EQU BRRST	TEMPORARY HALFWORD STORAGE 00035001
00009C				1613	=	DS F	00036001
		000A0		1614	=PROLREG	EQU *-FSAAREA	STORAGE FOR PBT AND LAT WHEN 00037001
0000A0				1615	=	DS 2A	A PROCEDURE IS FORMAL PARAM 00038001
				1616	=*		00039001
				1617	=*		00040001
				1618	=*	HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00041001
0000A8				1619	=	DS 0H	00042001
0000A8	00			1620	=	DC X'00'	00043001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000A9 00		000A9		1621=PROLPBN	EQU	*-FSAREA	STORAGE FOR CALLED PBN 00044001
				1622=	DC	X'00'	00045001
0000AA 0008		000AA		1623=EIGHT	EQU	*-FSAREA	CONST FOR REDUCING RAS 00046001
				1624=	DC	H'8'	00047001
				1625=*			00048001
0000AC				1626=	DS	0F	00049001
		000AC		1627=ADSTAB	EQU	*-FSAREA	ADDR OF DSTABLE 00050001
0000AC				1628=	DS	A	IN THE OBJECT PROGRAM 00051001
		000B0		1629=ANOTTAB	EQU	*-FSAREA	ADDR OF NOTE TABLE 00052001
0000B0				1630=	DS	A	(INSERTED BY THE OPEN ROUTINE) 00053001
				1631=*			00054001
		000B4		1632=IHIFSAST	EQU	*	00055001
		000B4		1633=PGOPSW	EQU	*-FSAREA	PROGRAM CHECK OLD PSW 00056001
0000B4				1634=	DS	2F	00057001
		000BC		1635=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR 00058001
0000BC 00000000				1636=	DC	F'0'	00059001
		000C0		1637=SCRCS	EQU	*-FSAREA	SEMICOLON NUMBER 00060001
0000C0				1638=	DS	H	00061001
		000C2		1639=DTSW	EQU	*-FSAREA	OPTION SWITCHES 00062001
		000C2		1640=OPTSW	EQU	DTSW	00063001
0000C2 00				1641=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20 00064001
		000C3		1642=FSAERCOD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE 00065001
0000C3				1643=	DS	C	00066001
				1644=*			00067001
				1645=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				1646=*			00069001
0000C4				1647=	DS	0F	00070001
		000C4		1648=IHIFSARS	EQU	*	00071001
		000C4		1649=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8 00072001
0000C4				1650=	DS	F	00073001
		000C8		1651=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP 00074001
0000C8				1652=	DS	F	00075001
		000CC		1653=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8 00076001
0000CC				1654=	DS	F	00077001
		000D0		1655=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM 00078001
0000D0				1656=	DS	F	00079001
				1657=*			00080001
				1658=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				1659=*			00082001
0000D4				1660=BRLIST	DS	0F	00083001
		000D4		1661=CAP1	EQU	*-FSAREA	FIRST PART CAPS 00084001
0000D4 4700 0000			00000	1662=	NOP	0	00085001
		000D8		1663=CAP2	EQU	*-FSAREA	SECOND PART CAPS 00086001
0000D8 4700 0000			00000	1664=	NOP	0	00087001
		000DC		1665=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY 00088001
		000DC		1666=PROLOGFP	EQU	PROLOGP	00089001
0000DC 4700 0000			00000	1667=	NOP	0	00090001
		000E0		1668=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY 00091001
0000E0 4700 0000			00000	1669=	NOP	0	00092001
		000E4		1670=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM 00093001
0000E4 4700 0000			00000	1671=	NOP	0	00094001
		000E8		1672=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY 00095001
0000E8 4700 0000			00000	1673=	NOP	0	00096001
		000EC		1674=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY 00097001
0000EC 4700 0000			00000	1675=	NOP	0	00098001
		000F0		1676=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3 00099001
0000F0 4700 0000			00000	1677=	NOP	0	00100001
		000F4		1678=CSWE1	EQU	*-FSAREA	FIRST PART CSWES 00101001
0000F4 4700 0000			00000	1679=	NOP	0	00102001
		000F8		1680=CSWE2	EQU	*-FSAREA	SECOND PART CSWES 00103001
0000F8 4700 0000			00000	1681=	NOP	0	00104001
		000FC		1682=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE 00105001
0000FC 4700 0000			00000	1683=	NOP	0	00106001
		00100		1684=TRACE	EQU	*-FSAREA	00107001
000100 D200 0000 0000		00000	00000	1685=	MVC	0(0),0	00108001
000106 4700 0000			00000	1686=	NOP	0	00109001
00010A 4700 0000			00000	1687=	NOP	0	00110001
		0010E		1688=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT 00111001
00010E 4700 0000			00000	1689=	NOP	0	00112001
		00112		1690=BCR	EQU	*-FSAREA	00113001
000112 0700				1691=	BCR	0,0	VARIABLE CONDITIONAL BRANCH 00114001
		00114		1692=GETMSTO	EQU	*-FSAREA	00115001
000114 4700 0000			00000	1693=	NOP	0	00116001
				1694=*			00117001
		00118		1695=VALUCALL	EQU	*-FSAREA	00118001
000118 4700 0000			00000	1696=	NOP	0	00119001
		0011C		1697=IORLST	EQU	*-FSAREA	00120001
00011C 4700 0000			00000	1698=	NOP	0	00121001
				1699=*			00122001
		001CC		1700=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST 00123001
				1701=*			00124001
				1702=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				1703=*			00126001
		0020C		1704=OUTOFB	EQU	FSAERR+4*16	00127001
00218				1705=NUMBIND	EQU	FSAERR+4*19	00128001
00208				1706=ARRAYBD	EQU	FSAERR+4*15	00129001
0026C				1707=ERROR40	EQU	FSAERR+4*40	00130001
00224				1708=OERR22	EQU	FSAERR+4*22	00131001
00210				1709=ENDLESL	EQU	FSAERR+4*17	00132001
00220				1710=OERR21	EQU	FSAERR+4*21	00133001
				1711=*			00134001
				1712 *			00901001
				1713 *		REGISTER EQUATES	00902001
				1714 *			00903001
				1715		IEZREGS	00904001
		00000		1716+R0	EQU	0	01-IEZRE



D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17 13.21
	00001			1717+R1	EQU	1		01-IEZRE
	00002			1718+R2	EQU	2		01-IEZRE
	00003			1719+R3	EQU	3		01-IEZRE
	00004			1720+R4	EQU	4		01-IEZRE
	00005			1721+R5	EQU	5		01-IEZRE
	00006			1722+R6	EQU	6		01-IEZRE
	00007			1723+R7	EQU	7		01-IEZRE
	00008			1724+R8	EQU	8		01-IEZRE
	00009			1725+R9	EQU	9		01-IEZRE
	0000A			1726+R10	EQU	10		01-IEZRE
	0000B			1727+R11	EQU	11		01-IEZRE
	0000C			1728+R12	EQU	12		01-IEZRE
	0000D			1729+R13	EQU	13		01-IEZRE
	0000E			1730+R14	EQU	14		01-IEZRE
	0000F			1731+R15	EQU	15		01-IEZRE
				1732 *				00905001
				1733	END			00906001





GPR			Symbol Cross Reference										PAGE 17			
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References				X390	3.1.04	2012/08/17	13.21	
OUTPUT3	4	00000378	00000001	I			401	397B								
OUTPUT3A	4	00000380	00000001	I			403	407B								
OUTPUT4	4	00000388	00000001	I			406	402B								
OUTPUT5	4	00000394	00000001	I			410	399B	404B							
PARTST	1	000008BB	00000001	X	X		914	342M	389	394M						
PBT	1	0000000B		U			434	448	751							
PG	1	0000001B	FFFFFFFF	C	C		1047	141	146	177M	492	496	514M	832M		
PGCF	1	00000000	FFFFFFFF	J			1038	137U	325U	488U	657U					
PG0	1	00000080		U			110	141	492	832						
PG1	1	00000040		U			111	146	496	514						
PROLOG	1	000000E0		U			1668	240B	597B							
PROLOGP	1	000000DC		U			1665	1666								
PROLPBN	1	000000A9		U			1621	447M	750M							
PROLREG	1	000000A0		U			1614	448M	751M							
PUTNOT	4	0000010E	00000001	I			213	218B	220B							
PUT1	4	000000BA	00000001	I			180	142B								
PUT2	4	00000098	00000001	I			167	147B								
PUT3	4	000000C4	00000001	I			186	165B	178B							
PUT31	4	000000E0	00000001	I			194	190B								
PUT31A	4	000000E4	00000001	I			195	192B								
PUT4	4	000000F2	00000001	I			200	188B								
PUT4A	2	000000F6	00000001	I			201	198B								
PUT41	4	00000132	00000001	I			223	215B								
R	4	00000004	FFFFFFFF	A	A		1040	225M	250	410	419M	545M	706	723	728M	
RASPB	1	000000D0		U			1655	990								
RASPT	1	000000C8		U			1651	988	994M							
RE	4	00000008	FFFFFFFF	A	A		1041	588M								
RECOI	1	000008B9	00000001	X	X		912	326	328M	420M	658	660M	729M			
RECPG	1	000008B8	00000001	X	X		911	138	140M	260M	489	491M	609M			
R0	1	00000000		U			1716	200M	201M	203	207	537M	538M	540	542	560M 777M
								792M	822M	883M	884M					
R1	1	00000001		U			1717	170M	186M	187	234	510	523M	524	561M	589M 592
								784	785	786	799	800	805M	806M	807	829 830M
								831	882M	884						
R10	1	0000000A		U			1726	212M	213M	214	217	219	221	370	550M	551M 552
								555	557	560	685	992				
R12	1	0000000C		U			1728	132M	134	161	189	195	211	233M	249M	272M 320M
								322	361M	382M	391	406	422M	482M	485	516 526
								532	549	591M	606M	652M	654	681M	697M	719 731M
								772	775	784	805	819	820	869	1008	1009 1011
								1013	1015	1017	1019	1021	1024	1025	1027	1028 1030
								1032	1035	1036						
R13	1	0000000D		U			1729	121	122M	131	133M	232M	233	237M	240	247M 249
								271M	272	274M	308	309M	315	319	321M	360M 361
								368M	379M	381	382	421M	422	424M	472	473M 483
								484M	590M	591	594M	597	605M	606	608M	641 642M
								648	653M	679M	681	683M	694M	696	697	730M 731
								733M	769	770M	819M	833M	867	868M	905M	1008M 1011M
								1015M	1019M	1024M	1027M	1030M	1035M			
R14	1	0000000E		U			1730	163M	181M	197M	233M	249M	272M	275B	361M	381M 422M
								518M	534M	591M	606M	610B	681M	696M	731M	
R15	1	0000000F		U			1731	113U	117	128D	129	161M	162M	163B	180M	181B 195M
								196M	197B	236U	238D	240M	246U	248D	273U	279D 329
								331	333	335	337	339	345	351	354	371M 373U
								380D	426	441M	442	443	464U	468	479D	480 516M
								517M	518B	532M	533M	534B	593U	595D	597M	604U 607U
								613D	661	664	666	680	686M	688U	695D	735 744M
								745	746	766	865	993				
R2	1	00000002		U			1718	167M	168M	169	187M	191	194	200	216M	217 391M
								392	411M	412M	413	524M	528	531	537	554M 555
								771M	774	775M	785M	788	790	841M	842M	844 847M
								848								
R3	1	00000003		U			1719	252M	253	255M	256	257	258	259M	266	567M 573
								584	586	587M	588	704M	705M	706	988M	989M 990
								992	993	994						
R4	1	00000004		U			1720	223M	224M	225	250M	251M	253	254M	256	410M 411
								418M	419	543M	544M	545	723M	727M	728	1005 1006
R5	1	00000005		U			1721	134M	135M	137U	160M	164M	322M	323M	325U	485M 486M
								488U	515M	519M	654M	655M	657U	869M	870M	
R6	1	00000006		U			1722	136M	216	324M	487M	554	656M	871M		
R7	1	00000007		U			1723	129M	130U	317M	318U	381M	480M	481U	649M	651U 696M
								766M	767U	865M	866U					
R8	1	00000008		U			1724	144M	145U	156	170	182M	234M	265	300U	304 316D
								317	367U	372D	392	423U	425D	442M	494M	495U 506
								561	572	592M	633U	637	649	650D	682U	687D 732U
								734D	745M	768U	800M	804	813	872M	878	986M 987U
								995M	996D	997B	1005	1006				
R9	1	00000009		U			1725	211M	212	214	382M	395M	398M	403M	408M	412 415M
								416	417M	418	549M	550	552	697M	708M	711M 716M
								721M	724M	725	726M	727	772M	773M	774	786M 787M
								788	789M	790						
S	2	00000018	FFFFFFFF	H	H		1045	207M	219	257	542M	557	584			
SAVEGET	4	0000057C	00000001	F	F		612	483M	484	590						
SAVEIN	4	00000678	00000001	F	F		700	648M	653	679	694	730				
SAVEOI	4	00000904	00000001	F	F		916	308M	309	320	368	424	641M	642	652	683 733
SAVEOP	4	0000094C	00000001	F	F		917	769M	770	833	867M	868	905			
SAVEPG	4	000008BC	00000001	F	F		915	121M	122	132	186	237	274	472M	473	482 523
								589	594	605	608					
SAVEPUT	4	000001C4	00000001	F	F		277	131M	133	232	247	271				
SAVOUTP	4	00000308	00000001	F	F		385	315M	319M	321	360	379	421			
THUNKIN	2	00000726	00000001	I			744	599								
THUNKOUT	2	000003CA	00000001	I			441	242								
TWOP16	4	00000A18	00000001	F	F		999	203	540							
TYP	1	0000001A	FFFFFFFF	C	C		1046	226M	258	343	347	351M	352M	396	401	586M 668
								709	714							
TYPC	1	000008BA	00000001	X	X		913	345M	346M	347	666M	667M	668			



Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.21
FSAAREA	00000120	FFFFFFFFD	1576		PRIMARY INPUT			
IHADCB	0000006C	FFFFFFFE	1058	1	DCBD			
PGCF	0000001C	FFFFFFF	1038		PRIMARY INPUT			

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Stmnt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.21
113		USING	Ordinary	00000001	00000000	00001000	15	008C0	122	IHIGPRPT, R15		
128		DROP					15			R15		
130		USING	Ordinary	00000001	00000000	00001000	7	00A58	271	IHIGPRPT, R7		
137		USING	Ordinary	FFFFFFF	00000000	00001000	5	0001B	259	PGCF, R5		
145		USING	Ordinary	FFFFFFFE	00000000	00001000	8	00058	263	IHADCB, R8		
236		USING	Ordinary	00000001	00000000	00001000	15	008C0	237	IHIGPRPT, R15		
238		DROP					15			R15		
246		USING	Ordinary	00000001	00000164	00001000	15	00060	247	*, R15		
248		DROP					15			R15		
273		USING	Ordinary	00000001	00000000	00001000	15	008C0	274	IHIGPRPT, R15		
279		DROP					15			R15		
300		USING	Ordinary	00000001	00000210	00001000	8	006F8	315	IHIGPROT, R8		
316		DROP					8			R8		
318		USING	Ordinary	00000001	00000210	00001000	7	00848	421	IHIGPROT, R7		
325		USING	Ordinary	FFFFFFF	00000000	00001000	5	0001A	419	PGCF, R5		
367		USING	Ordinary	00000001	00000210	00001000	8	007E4	371	IHIGPROT, R8		
372		DROP					8			R8		
373		USING	Ordinary	00000001	000002F0	00001000	15	00018	379	*, R15		
380		DROP					15			R15		
423		USING	Ordinary	00000001	00000210	00001000	8	006F8	424	IHIGPROT, R8		
425		DROP					8			R8		
464		USING	Ordinary	00000001	000003E4	00001000	15	004DC	473	*, R15		
479		DROP					15			R15		
481		USING	Ordinary	00000001	000003E4	00001000	7	00674	590	IHIGPRGT, R7		
488		USING	Ordinary	FFFFFFF	00000000	00001000	5	0001B	588	PGCF, R5		
495		USING	Ordinary	FFFFFFFE	00000000	00001000	8	00058	579	IHADCB, R8		
593		USING	Ordinary	00000001	000003E4	00001000	15	004DC	594	IHIGPRGT, R15		
595		DROP					15			R15		
604		USING	Ordinary	00000001	00000568	00001000	15	00354	605	*, R15		
607		USING	Ordinary	00000001	000003E4	00001000	15	004DC	609	IHIGPRGT, R15		
613		DROP					15			R15		
633		USING	Ordinary	00000001	000005C4	00001000	8	00344	648	IHIGPRIT, R8		
650		DROP					8			R8		
651		USING	Ordinary	00000001	000005C4	00001000	7	00494	730	IHIGPRIT, R7		
657		USING	Ordinary	FFFFFFF	00000000	00001000	5	0001B	901	PGCF, R5		
682		USING	Ordinary	00000001	000005C4	00001000	8	00430	686	IHIGPRIT, R8		
687		DROP					8			R8		
688		USING	Ordinary	00000001	00000660	00001000	15	00018	694	*, R15		
695		DROP					15			R15		
732		USING	Ordinary	00000001	000005C4	00001000	8	00344	733	IHIGPRIT, R8		
734		DROP					8			R8		
767		USING	Ordinary	00000001	00000740	00001000	7	00254	845	IHIGPROP, R7		
768		USING	Ordinary	FFFFFFFE	00000000	00001000	8	0003E	848	IHADCB, R8		
866		USING	Ordinary	00000001	00000830	00001000	7	00120	905	IHIGPRCL, R7		
987		USING	Ordinary	00000001	000009F6	00001000	8	00050	995	*, R8		
996		DROP					8			R8		

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The following statements were flagged -

SYSD.ALGOLFRT.ASM(IHIGPR)  
236(218), 246(228), 273(248), 300(275), 367(334), 373(340), 423(390), 464(431), 593(534), 604(545), 607(548),  
633(574), 682(615), 688(621), 732(665), 987(824)

16 statements flagged in this assembly, 4 was the highest severity code.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHIGPR PROCSTEP: X390

Primary input: lines 1 to 906 of SYSD.ALGOLFRT.ASM(IHIGPR)

SYSLIB library records read: 6015

SYSUT1 work file size: 129876 bytes

SYSUT2 work file size: 556768 bytes

SYSUT3 work file size: 72480 bytes

SYSLIN file records written: 53

TXA000I Return code 4, elapsed time 1.96 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIGPRTN 000A5E 2

**IHIIAR**

**LEVEL**

**V2.M01**



TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIAR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00138
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	ASSIGN NUMBERS TO ARRAY INDICATED BY SECOND ACTUAL		00008001
				9 *	PARAMETER BY CALLING INREAL OR ININTEGER REPEATEDLY		00009001
				10 *			00010001
				11 *	ENTRY POINTS -		00011001
				12 *	IHIIARRY -	FROM GENERATED OBJECT MODULE	00012001
				13 *		INARRAY LA R1,PARMLIST	00013001
				14 *	IHIIARRT -	FROM GENERATED OBJECT MODULE	00014001
				15 *		INTARRAY BALR R14,R15	00015001
				16 *	DATA PASSED BY NAME		00016001
				17 *			00017001
				18 *	INPUT -	N/A	00018001
				19 *			00019001
				20 *	OUTPUT -	N/A	00020001
				21 *			00021001
				22 *	EXTERNAL ROUTINES -		00022001
				23 *	IHIOR -	EVALUATE DATA SET NUMBER	00023001
				24 *	IHIIDE -	INREAL OR ININTEGER	00024001
				25 *			00025001
				26 *	EXIT -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00026001
				27 *			00027001
				28 *	EXIT -	ERROR - N/A	00028001
				29 *			00029001
				30 *	TABLES/WORK AREAS -	N/A	00030001
				31 *			00031001
				32 *	R1	-> PARAMETER LIST	00032001
				33 *	R7	TRANSFER DESTADR	00033001
				34 *	R10	TRANSFER FLAGBYTE	00034001
				35 *	R12	-> FSA	00035001
				36 *			00036001
000000		00000	000B8	37	IHIIARTN	CSECT	00037001
				38 *			00038001
				39	ENTRY	IHIIARRT	00039001
				40	ENTRY	IHIIARRY	00040001
				41 *			00041001
				42	IHIIARRT	SAVE (14,12),,'IHIIARRT LEVEL 2.1 &SYSDATE &SYSTIME'	00042001
000000	47F0 F026		00026	43+	IHIIARRT	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			44+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C9C1D9D9E3			45+	DC	CL32'IHIIARRT LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			46+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	47+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				48 *			00043001
	R:F 00000			49	USING	IHIIARRT,R15	00044001
00002A	18CD			50	LR	R12,R13 R12 -> FSA	00045001
00002C	4190 F03C		0003C	51	LA	R9,IHIIARRY R9 -> IHGIARRY	00046001
				52	DROP	R15	00047001
	R:9 0003C			53	USING	IHIIARRY,R9	00048001
000030	41D0 D048		00048	54	LA	R13,ASAVE(,R13) R13 -> SECOND SAVEAREA IN FSA	00049001
000034	41A0 0004		00004	55	LA	R10,4 FLAGBYTE INTARRAY	00050001
000038	47F0 9034		00070	56	B	INAR1	00051001
				57 *			00052001
				58	IHIIARRY	SAVE (14,12),,'IHIIARRY LEVEL 2.1 &SYSDATE &SYSTIME'	00053001
00003C	47F0 F026		00026	59+	IHIIARRY	B 38(0,15) BRANCH AROUND ID	01-SAVE
000040	21			60+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000041	C9C8C9C9C1D9D9E8			61+	DC	CL32'IHIIARRY LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000061	F1			62+	DC	CL1'1' IDENTIFIER	01-SAVE
000062	90EC D00C		0000C	63+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				64 *			00054001
000066	189F			65	LR	R9,R15	00055001
000068	18CD			66	LR	R12,R13 R12 -> FSA	00056001
00006A	41D0 D048		00048	67	LA	R13,ASAVE(,R13) R13 -> SECOND SAVEAREA IN FSA	00057001
00006E	1BAA			68	SR	R10,R10 FLAGBYTE INARRAY	00058001
				69 *			00059001
				70 *	EVALUATE	DATASET NUMBER	00060001
				71 *			00061001
000070	58F0 9074		000B0	72	INAR1	L R15,VIOREV	00062001
000074	05EF			73	BALR	R14,R15	00063001
				74 *			00064001
				75 *	EVALUATE	DEST ADDR	00065001
				76 *			00066001
000076	5810 1004		00004	77	L	R1,4(,R1) R1 -> SECOND PARAMETER	00067001
00007A	5880 100C		0000C	78	L	R8,12(,R1) R8 -> DESTEND+1	00068001
00007E	5870 1008		00008	79	L	R7,8(,R1) R7 -> STARTDEST	00069001
				80 *			00070001
				81 *	CALL	ROUTINE INREAL - ININTEGER	00071001
				82 *			00072001
000082	58F0 9078		000B4	83	INAR2	L R15,VIDEAI R15 -> IHIIDEAI	00073001
000086	05EF			84	BALR	R14,R15 CALL IHIIDEAI	00074001
000088	12AA			85	LTR	R10,R10	00075001
00008A	4720 9062		0009E	86	BP	INAR3	00076001
00008E	9120 C0C2		000C2	87	TM	OPTSW(R12),X'20' LONG OR SHORT PREC ?	00077001
000092	4710 9062		0009E	88	BO	INAR3	00078001
000096	4170 7008		00008	89	LA	R7,8(,R7) INCREASE DEST ADDR INARRAY	00079001
00009A	47F0 9066		000A2	90	B	INAR3A	00080001
				91 *			00081001
00009E	4170 7004		00004	92	INAR3	LA R7,4(,R7) INCREASE DEST ADDR INTARRAY	00082001
0000A2	1978			93	INAR3A	CR R7,R8	00083001
0000A4	4740 9046		00082	94	BL	INAR2	00084001
0000A8	18DC			95	LR	R13,R12	00085001
				96 *			00086001
				97	RETURN	(14,12) RESTORE REGS AND RETURN	00087001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000AA	98EC D00C		0000C	98+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
0000AE	07FE			99+	BR	14	01-RETUR
				100 *			00088001
				101 *	EXTERNAL	ADDRS	00089001
				102 *			00090001
0000B0	00000000			103	VIOREV	DC V(IHIIOREV)	00091001
0000B4	00000000			104	VIDEAI	DC V(IHIIDEAI)	00092001
				105 *			00093001
000000		00000	00120	106	FAS	DSECT	00094001
				107 *			00095001
				108		COPY FSAREA	00096001
				109=*			00001001
				110=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				111=*			00003001
				112=*		STATUS - LEVEL 2.1	00004001
				113=*			00005001
				114=*		*****	00006001
				115=*			00007001
				116=*		COMMON DATA AREA	00008001
				117=*			00009001
				118=*		FSAREA	00010001
				119=*			00011001
				120=*		*****	00012001
				121=*			00013001
				122=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				123=*		MODULES DURING THE EXECUTION	00015001
				124=*			00016001
				125=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				126=*		SUBROUTINES) BY R12	00018001
				127=*			00019001
		00000		128=FSAREA	EQU	*	00020001
				129=*			00021001
				130=*		SAVE AREAS	00022001
				131=*			00023001
000000				132=	DS	18F	00024001
		00048		133=ASAVE	EQU	*-FSAREA	00025001
000048				134=	DS	18F	00026001
				135=*			00027001
				136=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				137=*			00029001
		00090		138=FCTVALST	EQU	*-FSAREA	00030001
000090				139=	DS	D	00031001
		00098		140=ASTLOC	EQU	*-FSAREA	00032001
000098	00000090			141=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		142=BRRST	EQU	*-FSAREA	00034001
		0009C		143=HW	EQU	BRRST	00035001
00009C				144=	DS	F	00036001
		000A0		145=PROLREG	EQU	*-FSAREA	00037001
0000A0				146=	DS	2A	00038001
				147=*			00039001
				148=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				149=*			00041001
0000A8				150=	DS	0H	00042001
0000A8	00			151=	DC	X'00'	00043001
		000A9		152=PROLPBN	EQU	*-FSAREA	00044001
0000A9	00			153=	DC	X'00'	00045001
		000AA		154=EIGHT	EQU	*-FSAREA	00046001
0000AA	0008			155=	DC	H'8'	00047001
				156=*			00048001
0000AC				157=	DS	0F	00049001
		000AC		158=ADSTAB	EQU	*-FSAREA	00050001
0000AC				159=	DS	A	00051001
		000B0		160=ANOTTAB	EQU	*-FSAREA	00052001
0000B0				161=	DS	A	00053001
				162=*			00054001
		000B4		163=IHIFSAST	EQU	*	00055001
		000B4		164=PGOPSW	EQU	*-FSAREA	00056001
0000B4				165=	DS	2F	00057001
		000BC		166=FSAPICA	EQU	*-FSAREA	00058001
0000BC	00000000			167=	DC	F'0'	00059001
		000C0		168=SCRCS	EQU	*-FSAREA	00060001
0000C0				169=	DS	H	00061001
		000C2		170=DTSW	EQU	*-FSAREA	00062001
		000C2		171=OPTSW	EQU	DTSW	00063001
0000C2	00			172=	DC	X'00'	00064001
		000C3		173=FSACRCD	EQU	*-FSAREA	00065001
0000C3				174=	DS	C	00066001
				175=*			00067001
				176=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				177=*			00069001
0000C4				178=	DS	0F	00070001
		000C4		179=IHIFSARS	EQU	*	00071001
		000C4		180=RASSTART	EQU	*-FSAREA	00072001
0000C4				181=	DS	F	00073001
		000C8		182=RASPT	EQU	*-FSAREA	00074001
0000C8				183=	DS	F	00075001
		000CC		184=RASEND	EQU	*-FSAREA	00076001
0000CC				185=	DS	F	00077001
		000D0		186=RASPB	EQU	*-FSAREA	00078001
0000D0				187=	DS	F	00079001
				188=*			00080001
				189=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				190=*			00082001
0000D4				191=BRLIST	DS	0F	00083001
		000D4		192=CAP1	EQU	*-FSAREA	00084001
0000D4	4700 0000		00000	193=	NOP	0	00085001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000D8	4700 0000	000D8	00000	194=CAP2	EQU	*-FSAREA	SECOND PART CAPS 00086001
			00000	195=	NOP	0	00087001
		000DC		196=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY 00088001
		000DC		197=PROLOGFP	EQU	PROLOGP	00089001
0000DC	4700 0000		00000	198=	NOP	0	00090001
		000E0		199=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY 00091001
0000E0	4700 0000		00000	200=	NOP	0	00092001
		000E4		201=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM 00093001
0000E4	4700 0000		00000	202=	NOP	0	00094001
		000E8		203=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY 00095001
0000E8	4700 0000		00000	204=	NOP	0	00096001
		000EC		205=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY 00097001
0000EC	4700 0000		00000	206=	NOP	0	00098001
		000F0		207=EPILP3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3 00099001
0000F0	4700 0000		00000	208=	NOP	0	00100001
		000F4		209=CSWE1	EQU	*-FSAREA	FIRST PART CSWES 00101001
0000F4	4700 0000		00000	210=	NOP	0	00102001
		000F8		211=CSWE2	EQU	*-FSAREA	SECOND PART CSWES 00103001
0000F8	4700 0000		00000	212=	NOP	0	00104001
		000FC		213=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE 00105001
0000FC	4700 0000		00000	214=	NOP	0	00106001
		00100		215=TRACE	EQU	*-FSAREA	00107001
000100	D200 0000 0000	00000	00000	216=	MVC	0(0),0	00108001
000106	4700 0000		00000	217=	NOP	0	00109001
00010A	4700 0000		00000	218=	NOP	0	00110001
		0010E		219=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT 00111001
00010E	4700 0000		00000	220=	NOP	0	00112001
		00112		221=BCR	EQU	*-FSAREA	00113001
000112	0700			222=	BCR	0,0	VARIABLE CONDITIONAL BRANCH 00114001
		00114		223=GETMSTO	EQU	*-FSAREA	00115001
000114	4700 0000		00000	224=	NOP	0	00116001
				225=*			00117001
		00118		226=VALUCALL	EQU	*-FSAREA	00118001
000118	4700 0000		00000	227=	NOP	0	00119001
		0011C		228=IORLST	EQU	*-FSAREA	00120001
00011C	4700 0000		00000	229=	NOP	0	00121001
				230=*			00122001
		001CC		231=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST 00123001
				232=*			00124001
				233=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				234=*			00126001
		0020C		235=OUTOFB	EQU	FSAERR+4*16	00127001
00218				236=NUMBIND	EQU	FSAERR+4*19	00128001
00208				237=ARRAYBD	EQU	FSAERR+4*15	00129001
0026C				238=ERROR40	EQU	FSAERR+4*40	00130001
00224				239=OERR22	EQU	FSAERR+4*22	00131001
00210				240=ENDLESL	EQU	FSAERR+4*17	00132001
00220				241=OERR21	EQU	FSAERR+4*21	00133001
				242=*			00134001
				243 *			00097001
				244 *		REGISTER EQUATES	00098001
				245 *			00099001
				246		IEZREGS	00100001
		00000		247+R0	EQU	0	01-IEZRE
00001				248+R1	EQU	1	01-IEZRE
00002				249+R2	EQU	2	01-IEZRE
00003				250+R3	EQU	3	01-IEZRE
00004				251+R4	EQU	4	01-IEZRE
00005				252+R5	EQU	5	01-IEZRE
00006				253+R6	EQU	6	01-IEZRE
00007				254+R7	EQU	7	01-IEZRE
00008				255+R8	EQU	8	01-IEZRE
00009				256+R9	EQU	9	01-IEZRE
0000A				257+R10	EQU	10	01-IEZRE
0000B				258+R11	EQU	11	01-IEZRE
0000C				259+R12	EQU	12	01-IEZRE
0000D				260+R13	EQU	13	01-IEZRE
0000E				261+R14	EQU	14	01-IEZRE
0000F				262+R15	EQU	15	01-IEZRE
				263 *			00101001
				264		END	00102001

[illegible]

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.21

0(0)	47	63	98M																
1(1)	47	63	77M	78	79	98M													
2(2)	47	63	98M																
3(3)	47	63	98M																
4(4)	47	63	98M																
5(5)	47	63	98M																
6(6)	47	63	98M																
7(7)	47	63	79M	89M	92M	93	98M												
8(8)	47	63	78M	93	98M														
9(9)	47	51M	53U	63	65M	98M													
10(A)	47	55M	63	68M	85M	98M													
11(B)	47	63	98M																
12(C)	47	50M	63	66M	87	95	98M												
13(D)	47	50	54M	63	66	67M	95M	98											
14(E)	47	63	73M	84M	98M	99B													
15(F)	43B	47	49U	52D	59B	63	65	72M	73B	83M	84B	98M							

IAR	Dsect Cross Reference					PAGE	7
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17 13.21
FAS	00000120	FFFFFFFF	106		PRIMARY INPUT		

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		FSAREA	
5	SYS1.AMODGEN		



Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.21
49		USING	Ordinary	00000001	00000000	00001000	15	0003C	51	IHIIARRT, R15				
52		DROP					15			R15				
53		USING	Ordinary	00000001	0000003C	00001000	9	00078	94	IHIIARRY, R9				

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHIIAR PROCSTEP: X390

Primary input: lines 1 to 102 of SYSD.ALGOLFRT.ASM(IHIIAR)

SYSLIB library records read: 295

SYSUT1 work file size: 24261 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 8160 bytes

SYSLIN file records written: 8

TXA000I Return code 0, elapsed time 0.19 seconds.

No uninitialized areas found

**IHIIBA**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIIBA)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00142
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	ASSIGN BOOLEAN VALUE TO ARRAY INDICATED BY SECOND ACTUAL		00008001
				9 *	PARAMETER BY CALLING INBOOLEAN REPEATEDLY		00009001
				10 *			00010001
				11 *	ENTRY POINT -		00011001
				12 *	IHIIBARR -	FROM GENERATED OBJECT MODULE	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *		DATA PASSED BY NAME	00015001
				16 *			00016001
				17 *	INPUT -	N/A	00017001
				18 *			00018001
				19 *	OUTPUT -	N/A	00019001
				20 *			00020001
				21 *	EXTERNAL ROUTINES -		00021001
				22 *	IHIOR -	EVALUATE DATA SET NUMBER	00022001
				23 *	IHIIBO -	INBOOLEAN	00023001
				24 *			00024001
				25 *	EXIT -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00025001
				26 *			00026001
				27 *	EXIT -	ERROR - N/A	00027001
				28 *			00028001
				29 *	TABLES/WORK AREAS -	N/A	00029001
				30 *			00030001
000000		00000	00064	31	IHIIBARR	CSECT	00031001
				32 *			00032001
				33 *	R1	-> PARAMETER LIST	00033001
				34 *	R12 12	-> FSA	00034001
				35 *			00035001
				36	SAVE	(14,12),, 'IHIIBARR LEVEL 2.1 &SYSDATE &SYSTIME'	00036001
000000	47F0 F026		00026	37+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			38+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C9C2C1D9D9			39+	DC	CL32'IHIIBARR LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			40+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	41+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				42 *			00037001
00002A	187F			43	LR	R7,R15	00038001
		R:7	00000	44	USING	IHIIBARR,R7	00039001
00002C	18CD			45	LR	R12,R13 R12 -> FSA	00040001
00002E	41D0 D048		00048	46	LA	R13,ASAVE(,R13) R13 -> SECOND SAVEAREA IN FSA	00041001
				47 *			00042001
				48 *	EVALUTE DATASET NUMBER		00043001
				49 *			00044001
000032	58F0 705C		0005C	50	L	R15,VIOREV	00045001
000036	05EF			51	BALR	R14,R15	00046001
				52 *			00047001
				53 *	EVALUTE DESTINATION ADDR		00048001
				54 *			00049001
000038	5810 1004		00004	55	L	R1,4(,R1)	00050001
00003C	5830 100C		0000C	56	L	R3,12(,R1) R3 -> DESTEND+1	00051001
000040	5820 1008		00008	57	L	R2,8(,R1) R2 -> START DEST	00052001
				58 *			00053001
				59 *	CALL FOR ROUTINE INBOOLEAN		00054001
				60 *			00055001
000044	58F0 7060		00060	61	INBARRY1	L R15,VIBOAR	00056001
000048	05EF			62	BALR	R14,R15	00057001
00004A	4120 2001		00001	63	LA	R2,1(,R2) INCR ADEST	00058001
00004E	1923			64	CR	R2,R3	00059001
000050	4740 7044		00044	65	BL	INBARRY1 MORE VALUE TO BE READ	00060001
000054	18DC			66	LR	R13,R12	00061001
				67 *			00062001
				68	RETURN	(14,12)	00063001
000056	98EC D00C		0000C	69+	LM	14,12,12(13) RESTORE THE REGISTERS	01-RETUR
00005A	07FE			70+	BR	14 RETURN	01-RETUR
				71 *			00064001
				72 *	EXTERNAL ADDR		00065001
				73 *			00066001
00005C	00000000			74	VIOREV	DC V(IHIIOREV) EVALUATE DATASET NUMBER	00067001
000060	00000000			75	VIBOAR	DC V(IHIIBOAR) INBOOLEAN	00068001
				76 *			00069001
000000		00000	00120	77	FAS	DSECT	00070001
				78 *			00071001
				79	COPY	FSAREA	00072001
				80=*			00001001
				81=*	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00002001
				82=*			00003001
				83=*	STATUS -	LEVEL 2.1	00004001
				84=*			00005001
				85=*	*****		00006001
				86=*			00007001
				87=*	COMMON DATA AREA		00008001
				88=*			00009001
				89=*	FSAREA		00010001
				90=*			00011001
				91=*	*****		00012001
				92=*			00013001
				93=*	DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL		00014001
				94=*	MODULES DURING THE EXECUTION		00015001
				95=*			00016001
				96=*	ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY		00017001
				97=*	SUBROUTINES) BY R12		00018001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				98=*			00019001
		00000		99=FSAREA	EQU *		00020001
				100=*			00021001
				101=*	SAVE AREAS		00022001
				102=*			00023001
000000				103=	DS	18F STANDARD SAVE AREA	00024001
		00048		104=ASAVE	EQU *-FSAREA	ALTERNATE SAVE AREA USED BY	00025001
000048				105=	DS	18F CERTAIN SUBROUTINES	00026001
				106=*			00027001
				107=*	MISCELLANEOUS WORK AREAS AND CONSTANTS		00028001
				108=*			00029001
		00090		109=FCTVALST	EQU *-FSAREA	TEMPORARY STORAGE FOR	00030001
000090				110=	DS	D FUNCTION VALUES	00031001
		00098		111=ASTLOC	EQU *-FSAREA	DISPL FOR ADDR OF STAND LOCTN	00032001
000098	00000090			112=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		113=BRRST	EQU *-FSAREA	TEMPORARY SAVE REG BRR	00034001
		0009C		114=HW	EQU	BRRST TEMPORARY HALFWORD STORAGE	00035001
00009C				115=	DS	F	00036001
		000A0		116=PROLREG	EQU *-FSAREA	STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				117=	DS	2A A PROCEDURE IS FORMAL PARAM	00038001
				118=*			00039001
				119=*	HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE		00040001
				120=*			00041001
0000A8				121=	DS	0H	00042001
0000A8	00			122=	DC	X'00'	00043001
		000A9		123=PROLPBN	EQU *-FSAREA	STORAGE FOR CALLED PBN	00044001
0000A9	00			124=	DC	X'00'	00045001
		000AA		125=EIGHT	EQU *-FSAREA	CONST FOR REDUCING RAS	00046001
0000AA	0008			126=	DC	H'8'	00047001
				127=*			00048001
0000AC				128=	DS	0F	00049001
		000AC		129=ADSTAB	EQU *-FSAREA	ADDR OF DSTABLE	00050001
0000AC				130=	DS	A IN THE OBJECT PROGRAM	00051001
		000B0		131=ANOTTAB	EQU *-FSAREA	ADDR OF NOTE TABLE	00052001
0000B0				132=	DS	A (INSERTED BY THE OPEN ROUTINE)	00053001
				133=*			00054001
		000B4		134=IHIFSAST	EQU *		00055001
		000B4		135=PGOPSW	EQU *-FSAREA	PROGRAM CHECK OLD PSW	00056001
0000B4				136=	DS	2F	00057001
		000BC		137=FSAPICA	EQU *-FSAREA	OLD PICA ADDR	00058001
0000BC	00000000			138=	DC	F'0'	00059001
		000C0		139=SCRCs	EQU *-FSAREA	SEMICOLON NUMBER	00060001
0000C0				140=	DS	H	00061001
		000C2		141=DTSW	EQU *-FSAREA	OPTION SWITCHES	00062001
		000C2		142=OPTSW	EQU	DTSW	00063001
0000C2	00			143=	DC	X'00'	00064001
		000C3		144=FSAERCOD	EQU *-FSAREA	ERROR CODE FOR ERROR ROUTINE	00065001
0000C3				145=	DS	C	00066001
				146=*			00067001
				147=*	RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER		00068001
				148=*			00069001
0000C4				149=	DS	0F	00070001
		000C4		150=IHIFSARS	EQU *		00071001
		000C4		151=RASSTART	EQU *-FSAREA	ADDR OF FIRST ENTRY IN RAS-8	00072001
0000C4				152=	DS	F	00073001
		000C8		153=RASPT	EQU *-FSAREA	RAS POINTER FROM TOP	00074001
0000C8				154=	DS	F	00075001
		000CC		155=RASEND	EQU *-FSAREA	ADDR OF LAST ENTRY IN RAS+8	00076001
0000CC				156=	DS	F	00077001
		000D0		157=RASPB	EQU *-FSAREA	RAS POINTER FROM BOTTOM	00078001
0000D0				158=	DS	F	00079001
				159=*			00080001
				160=*	LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES		00081001
				161=*			00082001
0000D4				162=BRLIST	DS	0F	00083001
		000D4		163=CAP1	EQU *-FSAREA	FIRST PART CAPS	00084001
0000D4	4700 0000	00000		164=	NOP	0	00085001
		000D8		165=CAP2	EQU *-FSAREA	SECOND PART CAPS	00086001
0000D8	4700 0000	00000		166=	NOP	0	00087001
		000DC		167=PROLOGP	EQU *-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY	00088001
		000DC		168=PROLOGFP	EQU	PROLOGP	00089001
0000DC	4700 0000	00000		169=	NOP	0	00090001
		000E0		170=PROLOG	EQU *-FSAREA	PROLOGUE PROGRAM USUAL ENTRY	00091001
0000E0	4700 0000	00000		171=	NOP	0	00092001
		000E4		172=RETPROG	EQU *-FSAREA	DISPLACEMENT RETURN PROGRAM	00093001
0000E4	4700 0000	00000		173=	NOP	0	00094001
		000E8		174=EPILOGP	EQU *-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY	00095001
0000E8	4700 0000	00000		175=	NOP	0	00096001
		000EC		176=EPILOGB	EQU *-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY	00097001
0000EC	4700 0000	00000		177=	NOP	0	00098001
		000F0		178=EPIPR3	EQU *-FSAREA	EPILOGUE PROGRAM ENTRY 3	00099001
0000F0	4700 0000	00000		179=	NOP	0	00100001
		000F4		180=CSWE1	EQU *-FSAREA	FIRST PART CSWES	00101001
0000F4	4700 0000	00000		181=	NOP	0	00102001
		000F8		182=CSWE2	EQU *-FSAREA	SECOND PART CSWES	00103001
0000F8	4700 0000	00000		183=	NOP	0	00104001
		000FC		184=LOADPP	EQU *-FSAREA	LOAD PRECOMPILED PROC ROUTINE	00105001
0000FC	4700 0000	00000		185=	NOP	0	00106001
		00100		186=TRACE	EQU *-FSAREA		00107001
000100	D200 0000 0000	00000		187=	MVC	0(0),0	00108001
000106	4700 0000	00000		188=	NOP	0	00109001
00010A	4700 0000	00000		189=	NOP	0	00110001
		0010E		190=TERMNTE	EQU *-FSAREA	NORMAL TERMINATION EXIT	00111001
00010E	4700 0000	00000		191=	NOP	0	00112001
		00112		192=BCR	EQU *-FSAREA		00113001
000112	0700			193=	BCR	0,0	00114001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
		00114		194=GETMSTO	EQU	*-FSAREA	00115001
000114	4700 0000		00000	195=	NOP	0	00116001
				196=*			00117001
		00118		197=VALUCALL	EQU	*-FSAREA	00118001
000118	4700 0000		00000	198=	NOP	0	00119001
		0011C		199=IORLST	EQU	*-FSAREA	00120001
00011C	4700 0000		00000	200=	NOP	0	00121001
				201=*			00122001
		001CC		202=FSAERR	EQU	X'1CC' DISPL FOR ERROR LIST	00123001
				203=*			00124001
				204=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				205=*			00126001
		0020C		206=OUTOFB	EQU	FSAERR+4*16	00127001
		00218		207=NUMBIND	EQU	FSAERR+4*19	00128001
		00208		208=ARRAYBD	EQU	FSAERR+4*15	00129001
		0026C		209=ERROR40	EQU	FSAERR+4*40	00130001
		00224		210=OERR22	EQU	FSAERR+4*22	00131001
		00210		211=ENDLESL	EQU	FSAERR+4*17	00132001
		00220		212=OERR21	EQU	FSAERR+4*21	00133001
				213=*			00134001
				214 *			00073001
				215 *	REGISTER EQUATES		00074001
				216 *			00075001
				217	IEZREGS		00076001
		00000		218+R0	EQU	0	01-IEZRE
		00001		219+R1	EQU	1	01-IEZRE
		00002		220+R2	EQU	2	01-IEZRE
		00003		221+R3	EQU	3	01-IEZRE
		00004		222+R4	EQU	4	01-IEZRE
		00005		223+R5	EQU	5	01-IEZRE
		00006		224+R6	EQU	6	01-IEZRE
		00007		225+R7	EQU	7	01-IEZRE
		00008		226+R8	EQU	8	01-IEZRE
		00009		227+R9	EQU	9	01-IEZRE
		0000A		228+R10	EQU	10	01-IEZRE
		0000B		229+R11	EQU	11	01-IEZRE
		0000C		230+R12	EQU	12	01-IEZRE
		0000D		231+R13	EQU	13	01-IEZRE
		0000E		232+R14	EQU	14	01-IEZRE
		0000F		233+R15	EQU	15	01-IEZRE
				234 *			00077001
				235	END		00078001



[illegible]

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.21

0(0)	41	69M							
1(1)	41	55M	56	57	69M				
2(2)	41	57M	63M	64	69M				
3(3)	41	56M	64	69M					
4(4)	41	69M							
5(5)	41	69M							
6(6)	41	69M							
7(7)	41	43M	44U	69M					
8(8)	41	69M							
9(9)	41	69M							
10(A)	41	69M							
11(B)	41	69M							
12(C)	41	45M	66	69M					
13(D)	41	45	46M	66M	69				
14(E)	41	51M	62M	69M	70B				
15(F)	37B	41	43	50M	51B	61M	62B	69M	

IBA		Dsect Cross Reference					PAGE		7
Dsect	Length	Id	Defn	Con	Member		X390 3.1.04	2012/08/17	13.21
FAS	00000120	FFFFFFFF	77		PRIMARY INPUT				

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		FSAREA	
5	SYS1.AMODGEN		

IBA				USING Map								PAGE		9
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21	
44		USING	Ordinary	00000001	00000000	00001000	7	00060	65	IHIIBARR,R7				

X390 3.1.04 2012/08/17 13.21

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIIBA      PROCSTEP: X390

Primary input: lines      1 to      78 of SYSD.ALGOLFRT.ASM(IHIIBA)

SYSLIB library records read: 295

SYSUT1 work file size: 21100 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 6240 bytes

SYSLIN file records written: 5

TXA000I Return code 0, elapsed time 0.18 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIIBARR 000064 4

**IHIIBO**

**LEVEL**

**V2.M01**



TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYS1.ALGOLFRT.ASM(IHIIB0)
SYSLIB	SYS1.MACLIB
	SYS1.TOOLS.MACLIB
	SYS1.ALGOLFRT.ASM
	SYS1.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00146
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17	13.21
				2 *					00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY			00003001
				4 *					00004001
				5 *	STATUS -	LEVEL 2.1			00005001
				6 *					00006001
				7 *	FUNCTION/OPERATION -				00007001
				8 *	SCAN INPUT BUFFER UNTIL A BOOLEAN VALUE IS FOUND				00008001
				9 *	TRANSFER IF 'TRUE' 1 IF 'FALSE' 0 TO BOOLEAN IDENTIFIER,				00009001
				10 *	THE SECOND PARAMETER				00010001
				11 *					00011001
				12 *	ENTRY POINTS -				00012001
				13 *	IHIIBOOL -	FROM GENERATED OBJECT MODULE			00013001
				14 *	LA	R1,PARMLIST			00014001
				15 *	BALR	R14,R15			00015001
				16 *	DATA	PASSED BY NAME			00016001
				17 *	IHIIBOAR -	FROM ARRAY MODULE IHIIBA			00017001
				18 *	L	R2,A(DESTINATION)			00018001
				19 *	BALR	R14,R15			00019001
				20 *	DATA	PASSED BY NAME			00020001
				21 *					00021001
				22 *	INPUT -	N/A			00022001
				23 *					00023001
				24 *	OUTPUT -	N/A			00024001
				25 *					00025001
				26 *	EXTERNAL ROUTINES -				00026001
				27 *	IHIIOR -	EVALUATE DATASET NUMBER			00027001
				28 *	-	OPEN DATA SET			00028001
				29 *	-	CHANGE TO NEXT INPUT RECORD			00029001
				30 *					00030001
				31 *	EXITS -	NORMAL - RELOAD REGISTERS AND EXIT VIA R14			00031001
				32 *					00032001
				33 *	EXITS -	ERROR - INPUT REQUEST BEYOND END OF DATASET			00033001
				34 *	BRANCH TO	IHIFSA			00034001
				35 *	L	R13,IHIFSA			00035001
				36 *	B	FSAERR+XX*4(R13) XX ERROR NO 5			00036001
				37 *					00037001
				38 *	TABLES/WORK AREAS -	N/A			00038001
				39 *					00039001
000000		00000	00282	40	IHIIBOOL	CSECT			00040001
				41 *					00041001
				42	ENTRY	IHIIBOAR			00042001
	R:5	00000		43	USING	DSTABLE,R5			00043001
				44 *					00044001
				45 *	R5	-> DSTABLE ENTRY			00045001
				46 *	R6	= DATASET NUMBER			00046001
				47 *					00047001
				48 *	DISPLACEMENTS IN	ADRLST IN IHIFSA			00048001
				49 *					00049001
		00000		50	CI	EQU 0 DISPLACEMENT FOR -	IHIIORCI		00050001
		00004		51	CL	EQU 4	IHIIORCL		00051001
		00008		52	EV	EQU 8	IHIIOREV		00052001
		0000C		53	NX	EQU 12	IHIIORNX		00053001
		00010		54	OP	EQU 16	IHIIOROP		00054001
		00014		55	OQ	EQU 20	IHIIOROQ		00055001
				56 *					00056001
				57	SAVE	(14,12),, 'IHIIBOOL LEVEL 2.1 &SYSDATE &SYSTIME'			00057001
000000	47F0 F026		00026	58+	B	38(0,15) BRANCH AROUND ID			01-SAVE
000004	21			59+	DC	AL1(33) LENGTH OF IDENTIFIER			01-SAVE
000005	C9C8C9C9C2D6D6D3			60+	DC	CL32 'IHIIBOOL LEVEL 2.1 08/17/12 13.2' IDENTIFIER			01-SAVE
000025	F1			61+	DC	CL1 '1' IDENTIFIER			01-SAVE
000026	90EC D00C		0000C	62+	STM	14,12,12(13) SAVE REGISTERS			01-SAVE
				63 *					00058001
		R:F	00000	64	USING	IHIIBOOL,R15			00059001
00002A	4170 F08E		0008E	65	LA	R7,COMMON			00060001
				66	DROP	R15			00061001
		R:7	0008E	67	USING	COMMON,R7			00062001
00002E	18CD			68	LR	R12,R13 R12 -> FSA			00063001
000030	50D0 71AE		0023C	69	ST	R13,SAVEAREA+4 CHAIN SAVE AREAS			00064001
000034	41D0 71AA		00238	70	LA	R13,SAVEAREA			00065001
000038	50D0 C008		00008	71	ST	R13,8(,R12)			00066001
				72 *					00067001
				73 *	EVALUATE DATA SET NUMBER				00068001
				74 *					00069001
00003C	58F0 C11C		0011C	75	L	R15,IORLST(,R12)			00070001
000040	58F0 F008		00008	76	L	R15,EV(,R15)			00071001
000044	05EF			77	BALR	R14,R15			00072001
000046	47F0 7000		0008E	78	B	INBOOL1			00073001
				79 *					00074001
				80	DROP	R7			00075001
				81 *					00076001
				82	IHIIBOAR	SAVE (14,12),, 'IHIIBOAR LEVEL 2.1 &SYSDATE &SYSTIME'			00077001
00004A	47F0 F026		00026	83+	IHIIBOAR	B 38(0,15) BRANCH AROUND ID			01-SAVE
00004E	21			84+	DC	AL1(33) LENGTH OF IDENTIFIER			01-SAVE
00004F	C9C8C9C9C2D6C1D9			85+	DC	CL32 'IHIIBOAR LEVEL 2.1 08/17/12 13.2' IDENTIFIER			01-SAVE
00006F	F1			86+	DC	CL1 '1' IDENTIFIER			01-SAVE
000070	90EC D00C		0000C	87+	STM	14,12,12(13) SAVE REGISTERS			01-SAVE
				88 *					00078001
		R:F	0004A	89	USING	IHIIBOAR,R15			00079001
000074	4170 F044		0008E	90	LA	R7,COMMON			00080001
				91	DROP	R15			00081001
		R:7	0008E	92	USING	COMMON,R7			00082001
000078	18CD			93	LR	R12,R13 R12 -> FSA			00083001
00007A	50D0 71AE		0023C	94	ST	R13,SAVEAREA+4 CHAIN SAVE AREAS			00084001
00007E	41D0 71AA		00238	95	LA	R13,SAVEAREA			00085001
000082	50D0 C008		00008	96	ST	R13,8(,R12)			00086001
000086	5020 719A		00228	97	ST	R2,ADEST STORE DESTINATION ADDR			00087001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00008A	47F0 7008		00096	98	B	INBOOLOP	00088001
				99	*		00089001
		0008E		100	COMMON	EQU *	COMMON CODE POINT
00008E	5810 1004		00004	101	INBOOL1	L R1,4(,R1)	00090001
000092	5010 719A		00228	102		ST R1,ADEST	00091001
000096	94DF 501B	0001B		103	INBOOLOP	NI DSF+1,255-DS10	00092001
00009A	91FF 5019	00019		104		TM Q,X'FF'	00093001
00009E	4770 7180		0020E	105	BNZ	ERROR2	00094001
0000A2	4960 71F2		00280	106	CH	R6,=H'1'	00095001
0000A6	4780 7180		0020E	107	BE	ERROR2	00096001
0000AA	9180 501A	0001A		108	TM	DSF,DS0	00097001
0000AE	4710 7036		000C4	109	BO	INBOOL2	00098001
0000B2	94FD 501A	0001A		110	NI	DSF,255-DS6	00099001
0000B6	58F0 C11C		0011C	111	L	R15,IORLST(,R12)	00100001
0000BA	58F0 F010		00010	112	L	R15,OP(,R15)	00101001
0000BE	05EF			113	BALR	R14,R15	00102001
0000C0	47F0 7052		000E0	114	B	INBOOL3	00103001
				115	*		00104001
0000C4	9120 501A	0001A		116	INBOOL2	TM DSF,DS2	00105001
0000C8	4710 7186		00214	117	BO	ERROR3	00106001
0000CC	9102 501A	0001A		118	TM	DSF,DS6	00107001
0000D0	4780 7052		000E0	119	BZ	INBOOL3	00108001
0000D4	9101 501A	0001A		120	TM	DSF,DS7	00109001
0000D8	4710 718C		0021A	121	BO	ERROR5	00110001
0000DC	47F0 7180		0020E	122	B	ERROR2	00111001
				123	*		00112001
0000E0	5880 5004		00004	124	INBOOL3	L R8,R	00113001
0000E4	0680			125	BCTR	R8,0	00114001
0000E6	5080 5004		00004	126	ST	R8,R	00115001
0000EA	9200 7192	00220		127	INBOOL4	MVI FLAGS,0	00116001
0000EE	41A0 7193		00221	128	INBOOL5	LA R10,MB	00117001
0000F2	1B99			129	SR	R9,R9	00118001
0000F4	9101 501A	0001A		130	TM	DSF,DS7	00119001
0000F8	4710 718C		0021A	131	BO	ERROR5	00120001
0000FC	5830 5008		00008	132	INBOOL6	L R3,RE	00121001
000100	0630			133	BCTR	R3,0	00122001
000102	5880 5004		00004	134	L	R8,R	00123001
000106	1983			135	CR	R8,R3	00124001
000108	4770 708C	0011A		136	BNE	INBOOL7	00125001
00010C	58F0 C11C	0011C		137	L	R15,IORLST(,R12)	00126001
000110	58F0 F00C	0000C		138	L	R15,NX(,R15)	00127001
000114	05EF			139	BALR	R14,R15	00128001
000116	47F0 7052		000E0	140	B	INBOOL3	00129001
				141	*		00130001
00011A	4180 8001		00001	142	INBOOL7	LA R8,1(,R8)	00131001
00011E	5080 5004		00004	143	ST	R8,R	00132001
000122	957D 8000	00000		144	CLI	0(R8),C''''	00133001
000126	4780 70DA		00168	145	BE	INBOOL9	00134001
00012A	91FF 7192	00220		146	TM	FLAGS,X'FF'	00135001
00012E	4780 706E		000FC	147	BZ	INBOOL6	00136001
000132	9540 8000	00000		148	CLI	0(R8),C' '	00137001
000136	4770 70C0		0014E	149	BNE	INBOOL8	00138001
00013A	4190 9001		00001	150	LA	R9,1(,R9)	00139001
00013E	1B44			151	SR	R4,R4	00140001
000140	4340 5018	00018		152	IC	R4,K	00141001
000144	1949			153	CR	R4,R9	00142001
000146	4780 705C	000EA		154	BE	INBOOL4	00143001
00014A	4770 706E	000FC		155	BNE	INBOOL6	00144001
00014E	1B99			156	INBOOL8	SR R9,R9	00145001
000150	41B0 7198	00226		157	LA	R11,MB+5	00146001
000154	19AB			158	CR	R10,R11	00147001
000156	4780 705C	000EA		159	BNL	INBOOL4	00148001
				160	*		00149001
00015A	D200 A000 8000 00000	00000		161	MVC	0(1,R10),0(R8)	00150001
000160	41A0 A001		00001	162	LA	R10,1(,R10)	00151001
000164	47F0 706E		000FC	163	B	INBOOL6	00152001
				164	*		00153001
000168	1B99			165	INBOOL9	SR R9,R9	00154001
00016A	91FF 7192	00220		166	TM	FLAGS,X'FF'	00155001
00016E	4770 70EC		0017A	167	BNZ	INBOOL10	00156001
000172	9601 7192	00220		168	OI	FLAGS,X'01'	00157001
000176	47F0 706E		000FC	169	B	INBOOL6	00158001
				170	*		00159001
00017A	4180 7197	00225		171	INBOOL10	LA R11,MB+4	00160001
00017E	19AB			172	CR	R10,R11	00161001
000180	4740 7060	000EE		173	BL	INBOOL5	00162001
000184	4720 7110	0019E		174	BH	INBOOL11	00163001
000188	D503 7193 719E	00221		175	CLC	MB(L'KTRUE),KTRUE	00164001
00018E	4770 7060	000EE		176	BNE	INBOOL5	00165001
000192	5820 719A	00228		177	L	R2,ADEST	00166001
000196	9201 2000	00000		178	MVI	0(R2),X'01'	00167001
00019A	47F0 7122	001B0		179	B	INBOOL12	00168001
				180	*		00169001
00019E	D504 7193 71A2	00221	00230	181	INBOOL11	CLC MB(L'KFALSE),KFALSE	00170001
0001A4	4770 7060	000EE		182	BNE	INBOOL5	00171001
0001A8	5820 719A	00228		183	L	R2,ADEST	00172001
0001AC	9200 2000	00000		184	MVI	0(R2),X'00'	00173001
				185	*		00174001
				186	*	RECOGNITION OF THE LAST DELIMITING CHARACTER	00175001
				187	*		00176001
0001B0	1B99			188	INBOOL12	SR R9,R9	00177001
0001B2	1B11			189	SR	R1,R1	00178001
0001B4	4180 8001	00001		190	INBOOL13	LA R8,1(,R8)	00179001
0001B8	5980 5008	00008		191	C	R8,RE	00180001
0001BC	4780 7172	00200		192	BNL	INBOOLNX	00181001
0001C0	9540 8000	00000		193	CLI	0(R8),C' '	00182001
							00183001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0001C4	4770 7152		001E0	194	BNE	INBOOL14	CHARACTER IS NOT BLANK 00184001
0001C8	4190 9001		00001	195	LA	R9,1(,R9)	CHARACTER IS BLANK INCREASE R9 00185001
0001CC	1B44			196	SR	R4,R4	TEST IF BLANK DELIMITERS DENOTE 00186001
0001CE	4340 5018		00018	197	IC	R4,K	BY K IS ALREADY FOUND 00187001
0001D2	1949			198	CR	R4,R9	00188001
0001D4	4770 7126		001B4	199	BNE	INBOOL13	NOT K BLANK DELIMITERS READ 00189001
0001D8	4110 1001		00001	200	LA	R1,1(,R1)	K BLANK DELIMITERS READ 00190001
0001DC	47F0 7126		001B4	201	B	INBOOL13	00191001
				202	*		00192001
0001E0	1211			203	INBOOL14	LTR R1,R1	CHARACTER NOT EQUAL BLANK FOUND 00193001
0001E2	4720 715C		001EA	204	BP	INBOOLAA	K OR MORE BLANKS FOUND 00194001
0001E6	4180 8001		00001	205	LA	R8,1(,R8)	< K BLANKS FOUND 00195001
0001EA	5980 5008		00008	206	INBOOLAA	C R8,RE	00196001
0001EE	4780 7172		00200	207	BE	INBOOLNX	RECORD END REACHED 00197001
0001F2	5080 5004		00004	208	ST	R8,R	STORE R TO DSTAB 00198001
0001F6	58D0 71AE		0023C	209	INBOOLEX	L R13,SAVEAREA+4	00199001
				210	*		00200001
				211	RETURN	(14,12)	RESTORE CALLERS REGS AND RETURN 00201001
0001FA	98EC D00C		0000C	212+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
0001FE	07FE			213+	BR	14	RETURN 01-RETUR
				214	*		00202001
000200	58F0 C11C		0011C	215	INBOOLNX	L R15,IORLST(,R12)	CALL NEXTREC ROUTINE 00203001
000204	58F0 F00C		0000C	216	L	R15,NX(,R15)	00204001
000208	05EF			217	BALR	R14,R15	00205001
00020A	47F0 7168		001F6	218	B	INBOOLEX	00206001
				219	*		00207001
00020E	18DC			220	ERROR2	LR R13,R12	00208001
000210	47FD 01D4		001D4	221	B	FSAERR+2*4(R13)	INCOMP ACTION ON DATASET 00209001
				222	*		00210001
000214	18DC			223	ERROR3	LR R13,R12	00211001
000216	47FD 01D8		001D8	224	B	FSAERR+3*4(R13)	INPUT BEYOND LAST OUTPUT 00212001
				225	*		00213001
00021A	18DC			226	ERROR5	LR R13,R12	INPUT REQUEST BEYOND END OF 00214001
00021C	47FD 01E0		001E0	227	B	FSAERR+5*4(R13)	DATA SET 00215001
				228	*		00216001
000220	00			229	FLAGS	DC X'00'	FLAG BYTE FOR APOSTROPHE 00217001
000221	40404040404040			230	MB	DC CL6' '	BUFFER 00218001
000227	00						
000228	00000000			231	ADEST	DC A(0)	DESTINATION ADDR 00219001
				232	*		00220001
00022C	E3D9E4C5			233	KTRUE	DC C'TRUE'	BOOLEAN VALUE TRUE 00221001
000230	C6C1D3E2C5			234	KFALSE	DC C'FALSE'	BOOLEAN VALUE FALSE 00222001
				235	*		00223001
000235	000000						
000238	0000000000000000			236	SAVEAREA	DC 18F'0'	SAVE AREA 00224001
				237	*		00225001
000280				238	LTORG		00226001
000280	0001			239		=H'1'	
				240	*		
				241	DSTABLE	DSECT=YES	00227001
000000		00000	00024	242+DSTABLE	DSECT		00228001
				243+	*		01-DSTAB
000000	00000000			244+ADCB	DC	F'0'	01-DSTAB
000004	00000000			245+R	DC	F'0'	01-DSTAB
000008	00000000			246+RE	DC	F'0'	01-DSTAB
00000C	00000000			247+NBB	DC	F'0'	01-DSTAB
000010	00000000			248+BB	DC	F'0'	01-DSTAB
000014	0001			249+S	DC	H'1'	RECORD POINTER 01-DSTAB
000016	0050			250+P	DC	H'80'	RECORD LENGTH 01-DSTAB
000018	02			251+K	DC	X'02'	NUMBER OF BLANK DELIM CHARS 01-DSTAB
000019	00			252+Q	DC	X'00'	NO OF RECORDS PER SECTION 01-DSTAB
00001A	0000			253+DSF	DC	H'00'	DATASET FLAGS 01-DSTAB
				254+	*		01-DSTAB
				255+	*	DATASET FLAGS - DSF	01-DSTAB
				256+	*		01-DSTAB
		00080		257+DS0	EQU	X'80'	DATASET OPEN 01-DSTAB
		00040		258+DS1	EQU	X'40'	01-DSTAB
		00020		259+DS2	EQU	X'20'	LAST I/O OUTPUT 01-DSTAB
		00010		260+DS3	EQU	X'10'	01-DSTAB
		00008		261+DS4	EQU	X'08'	01-DSTAB
		00004		262+DS5	EQU	X'04'	01-DSTAB
		00002		263+DS6	EQU	X'02'	OPEN FOR OUTPUT 01-DSTAB
		00001		264+DS7	EQU	X'01'	END OF FILE 01-DSTAB
				265+	*		01-DSTAB
				266+	*	DATASET FLAGS - DSF+1	01-DSTAB
				267+	*		01-DSTAB
		00080		268+DS8	EQU	X'80'	END OF DATA 01-DSTAB
		00040		269+DS9	EQU	X'40'	01-DSTAB
		00020		270+DS10	EQU	X'20'	OPENED BY SYSACT 12 01-DSTAB
		00010		271+DS11	EQU	X'10'	INDICATE IHIERR-ROUT 01-DSTAB
		00008		272+DSEOD	EQU	X'08'	01-DSTAB
		00004		273+DSIOERR	EQU	X'04'	I/O ERROR 01-DSTAB
		00002		274+DS14	EQU	X'02'	DATASET OPENED 01-DSTAB
		00001		275+DS15	EQU	X'01'	CLOSE FROM IHIERR 01-DSTAB
				276+	*		01-DSTAB
00001C	00000000			277+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			278+BL	DC	H'0'	LRECL+ TWO ARB 01-DSTAB
000022	0000			279+	DC	H'0'	01-DSTAB
				280+	*		01-DSTAB
		00024		281+DSTABLEL	EQU	*-DSTABLE	L'DSTABLE ENTRY 01-DSTAB
				282+	*		01-DSTAB
				283	*		00229001
000000		00000	00120	284 FAS	DSECT		00230001
				285	*		00231001
				286	COPY	FSAREA	00232001
				287=	*		00001001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				288=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				289=*			00003001
				290=*		STATUS - LEVEL 2.1	00004001
				291=*			00005001
				292=*****			00006001
				293=*			00007001
				294=*		COMMON DATA AREA	00008001
				295=*			00009001
				296=*		FSAREA	00010001
				297=*			00011001
				298=*****			00012001
				299=*			00013001
				300=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				301=*		MODULES DURING THE EXECUTION	00015001
				302=*			00016001
				303=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				304=*		SUBROUTINES) BY R12	00018001
				305=*			00019001
		00000		306=FSAREA	EQU *		00020001
				307=*			00021001
				308=*		SAVE AREAS	00022001
				309=*			00023001
000000				310=	DS	18F STANDARD SAVE AREA	00024001
		00048		311=ASAVE	EQU *-FSAREA	ALTERNATE SAVE AREA USED BY	00025001
000048				312=	DS	18F CERTAIN SUBROUTINES	00026001
				313=*			00027001
				314=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				315=*			00029001
		00090		316=FCTVALST	EQU *-FSAREA	TEMPORARY STORAGE FOR	00030001
000090				317=	DS	D FUNCTION VALUES	00031001
		00098		318=ASTLOC	EQU *-FSAREA	DISPL FOR ADDR OF STAND LOCTN	00032001
000098 00000090				319=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		320=BRRST	EQU *-FSAREA	TEMPORARY SAVE REG BRR	00034001
		0009C		321=HW	EQU BRRST	TEMPORARY HALFWORD STORAGE	00035001
00009C				322=	DS	F	00036001
		000A0		323=PROLREG	EQU *-FSAREA	STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				324=	DS	2A A PROCEDURE IS FORMAL PARAM	00038001
				325=*			00039001
				326=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				327=*			00041001
0000A8				328=	DS	0H	00042001
0000A8 00				329=	DC	X'00'	00043001
		000A9		330=PROLPBN	EQU *-FSAREA	STORAGE FOR CALLED PBN	00044001
0000A9 00				331=	DC	X'00'	00045001
		000AA		332=EIGHT	EQU *-FSAREA	CONST FOR REDUCING RAS	00046001
0000AA 0008				333=	DC	H'8'	00047001
				334=*			00048001
0000AC				335=	DS	0F	00049001
		000AC		336=ADSTAB	EQU *-FSAREA	ADDR OF DSTABLE	00050001
0000AC				337=	DS	A IN THE OBJECT PROGRAM	00051001
		000B0		338=ANOTTAB	EQU *-FSAREA	ADDR OF NOTE TABLE	00052001
0000B0				339=	DS	A (INSERTED BY THE OPEN ROUTINE)	00053001
				340=*			00054001
		000B4		341=IHIFSAST	EQU *		00055001
		000B4		342=PGOPSW	EQU *-FSAREA	PROGRAM CHECK OLD PSW	00056001
0000B4				343=	DS	2F	00057001
		000BC		344=FSAPICA	EQU *-FSAREA	OLD PICA ADDR	00058001
0000BC 00000000				345=	DC	F'0'	00059001
		000C0		346=SCRCS	EQU *-FSAREA	SEMICOLON NUMBER	00060001
0000C0				347=	DS	H	00061001
		000C2		348=DTSW	EQU *-FSAREA	OPTION SWITCHES	00062001
		000C2		349=OPTSW	EQU DTSW		00063001
0000C2 00				350=	DC	X'00'	00064001
		000C3		351=FSAERCOD	EQU *-FSAREA	ERROR CODE FOR ERROR ROUTINE	00065001
0000C3				352=	DS	C	00066001
				353=*			00067001
				354=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				355=*			00069001
0000C4				356=	DS	0F	00070001
		000C4		357=IHIFSARS	EQU *		00071001
		000C4		358=RASSTART	EQU *-FSAREA	ADDR OF FIRST ENTRY IN RAS-8	00072001
0000C4				359=	DS	F	00073001
		000C8		360=RASPT	EQU *-FSAREA	RAS POINTER FROM TOP	00074001
0000C8				361=	DS	F	00075001
		000CC		362=RASEND	EQU *-FSAREA	ADDR OF LAST ENTRY IN RAS+8	00076001
0000CC				363=	DS	F	00077001
		000D0		364=RASPB	EQU *-FSAREA	RAS POINTER FROM BOTTOM	00078001
0000D0				365=	DS	F	00079001
				366=*			00080001
				367=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				368=*			00082001
0000D4				369=BRLIST	DS	0F	00083001
		000D4		370=CAP1	EQU *-FSAREA	FIRST PART CAPS	00084001
0000D4 4700 0000			00000	371=	NOP	0	00085001
		000D8		372=CAP2	EQU *-FSAREA	SECOND PART CAPS	00086001
0000D8 4700 0000			00000	373=	NOP	0	00087001
		000DC		374=PROLOGP	EQU *-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY	00088001
		000DC		375=PROLOGFP	EQU PROLOGP		00089001
0000DC 4700 0000			00000	376=	NOP	0	00090001
		000E0		377=PROLOG	EQU *-FSAREA	PROLOGUE PROGRAM USUAL ENTRY	00091001
0000E0 4700 0000			00000	378=	NOP	0	00092001
		000E4		379=RETPROG	EQU *-FSAREA	DISPLACEMENT RETURN PROGRAM	00093001
0000E4 4700 0000			00000	380=	NOP	0	00094001
		000E8		381=EPILOGP	EQU *-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY	00095001
0000E8 4700 0000			00000	382=	NOP	0	00096001
		000EC		383=EPILOGB	EQU *-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY	00097001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000EC	4700 0000		00000	384=	NOP	0	00098001
		000F0		385=EPILPR3	EQU	*-FSAREA	00099001
0000F0	4700 0000		00000	386=	NOP	0	00100001
		000F4		387=CSWE1	EQU	*-FSAREA	00101001
0000F4	4700 0000		00000	388=	NOP	0	00102001
		000F8		389=CSWE2	EQU	*-FSAREA	00103001
0000F8	4700 0000		00000	390=	NOP	0	00104001
		000FC		391=LOADPP	EQU	*-FSAREA	00105001
0000FC	4700 0000		00000	392=	NOP	0	00106001
		00100		393=TRACE	EQU	*-FSAREA	00107001
000100	D200 0000 0000	00000	00000	394=	MVC	0(0),0	00108001
000106	4700 0000		00000	395=	NOP	0	00109001
00010A	4700 0000		00000	396=	NOP	0	00110001
		0010E		397=TERMNTE	EQU	*-FSAREA	00111001
00010E	4700 0000		00000	398=	NOP	0	00112001
		00112		399=BCR	EQU	*-FSAREA	00113001
000112	0700			400=	BCR	0,0	00114001
		00114		401=GETMSTO	EQU	*-FSAREA	00115001
000114	4700 0000		00000	402=	NOP	0	00116001
				403=*			00117001
		00118		404=VALUCALL	EQU	*-FSAREA	00118001
000118	4700 0000		00000	405=	NOP	0	00119001
		0011C		406=IORLST	EQU	*-FSAREA	00120001
00011C	4700 0000		00000	407=	NOP	0	00121001
				408=*			00122001
		001CC		409=FSAERR	EQU	X'1CC'	00123001
				410=*			00124001
				411=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				412=*			00126001
		0020C		413=OUTOFB	EQU	FSAERR+4*16	00127001
00218				414=NUMBIND	EQU	FSAERR+4*19	00128001
00208				415=ARRAYBD	EQU	FSAERR+4*15	00129001
0026C				416=ERROR40	EQU	FSAERR+4*40	00130001
00224				417=OERR22	EQU	FSAERR+4*22	00131001
00210				418=ENDLESL	EQU	FSAERR+4*17	00132001
00220				419=OERR21	EQU	FSAERR+4*21	00133001
				420=*			00134001
				421 *			00233001
				422 *		REGISTER EQUATES	00234001
				423 *			00235001
				424		IEZREGS	00236001
		00000		425+R0	EQU	0	01-IEZRE
00001				426+R1	EQU	1	01-IEZRE
00002				427+R2	EQU	2	01-IEZRE
00003				428+R3	EQU	3	01-IEZRE
00004				429+R4	EQU	4	01-IEZRE
00005				430+R5	EQU	5	01-IEZRE
00006				431+R6	EQU	6	01-IEZRE
00007				432+R7	EQU	7	01-IEZRE
00008				433+R8	EQU	8	01-IEZRE
00009				434+R9	EQU	9	01-IEZRE
0000A				435+R10	EQU	10	01-IEZRE
0000B				436+R11	EQU	11	01-IEZRE
0000C				437+R12	EQU	12	01-IEZRE
0000D				438+R13	EQU	13	01-IEZRE
0000E				439+R14	EQU	14	01-IEZRE
0000F				440+R15	EQU	15	01-IEZRE
				441 *			00237001
				442		END	00238001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21
=H'1'	2	00000280	00000001	H	H		239	106				
ADEST	4	00000228	00000001	A	A		231	97M 102M 177 183				
BRRST	1	0000009C		U			320	321				
COMMON	1	0000008E	00000001	U			100	65 67U 90 92U				
DSF	2	0000001A	FFFFFFFF	H	H		253	103M 108 110M 116 118 120 130				
DSTABLE	1	00000000	FFFFFFFF	J			242	43U 281				
DS0	1	00000080		U			257	108				
DS10	1	00000020		U			270	103				
DS2	1	00000020		U			259	116				
DS6	1	00000002		U			263	110 118				
DS7	1	00000001		U			264	120 130				
DTSW	1	000000C2		U			348	349				
ERROR2	2	0000020E	00000001	I			220	105B 107B 122B				
ERROR3	2	00000214	00000001	I			223	117B				
ERROR5	2	0000021A	00000001	I			226	121B 131B				
EV	1	00000008		U			52	76				
FCTVALST	1	00000090		U			316	319				
FLAGS	1	00000220	00000001	X	X		229	127M 146 166 168M				
FSAERR	1	000001CC		U			409	221B 224B 227B 413 414 415 416 417 418 419				
FSAREA	1	00000000	FFFFFFFFE	U			306	311 316 318 319 320 323 330 332 336 338 342 344				
								346 348 351 358 360 362 364 370 372 374 377 379				
								381 383 385 387 389 391 393 397 399 401 404 406				
IHIIBOAR	4	0000004A	00000001	I			83	42 89U				
IHIIBOOL	1	00000000	00000001	J			40	64U				
INBOOLAA	4	000001EA	00000001	I			206	204B				
INBOOLEX	4	000001F6	00000001	I			209	218B				
INBOOLNX	4	00000200	00000001	I			215	192B 207B				
INBOOLOP	4	00000096	00000001	I			103	98B				
INBOOL1	4	0000008E	00000001	I			101	78B				
INBOOL10	4	0000017A	00000001	I			171	167B				
INBOOL11	6	0000019E	00000001	I			181	174B				
INBOOL12	2	000001B0	00000001	I			188	179B				
INBOOL13	4	000001B4	00000001	I			190	199B 201B				
INBOOL14	2	000001E0	00000001	I			203	194B				
INBOOL2	4	000000C4	00000001	I			116	109B				
INBOOL3	4	000000E0	00000001	I			124	114B 119B 140B				
INBOOL4	4	000000EA	00000001	I			127	154B 159B				
INBOOL5	4	000000EE	00000001	I			128	173B 176B 182B				
INBOOL6	4	000000FC	00000001	I			132	147B 155B 163B 169B				
INBOOL7	4	0000011A	00000001	I			142	136B				
INBOOL8	2	0000014E	00000001	I			156	149B				
INBOOL9	2	00000168	00000001	I			165	145B				
IORLST	1	0000011C		U			406	75 111 137 215				
K	1	00000018	FFFFFFFF	X	X		251	152 197				
KFALSE	5	00000230	00000001	C	C		234	181				
KTRUE	4	0000022C	00000001	C	C		233	175				
MB	6	00000221	00000001	C	C		230	128 157 171 175 181				
NX	1	0000000C		U			53	138 216				
OP	1	00000010		U			54	112				
PROLOGP	1	000000DC		U			374	375				
Q	1	00000019	FFFFFFFF	X	X		252	104				
R	4	00000004	FFFFFFFF	F	F		245	124 126M 134 143M 208M				
RE	4	00000008	FFFFFFFF	F	F		246	132 191 206				
R1	1	00000001		U			426	101M 102 189M 200M 203M				
R10	1	0000000A		U			435	128M 158 161 162M 172				
R11	1	0000000B		U			436	157M 158 171M 172				
R12	1	0000000C		U			437	68M 71 75 93M 96 111 137 215 220 223 226				
R13	1	0000000D		U			438	68 69 70M 71 93 94 95M 96 209M 220M 221 223M				
								224 226M 227				
R14	1	0000000E		U			439	77M 113M 139M 217M				
R15	1	0000000F		U			440	64U 66D 75M 76M 77B 89U 91D 111M 112M 113B 137M 138M				
								139B 215M 216M 217B				
R2	1	00000002		U			427	97 177M 178 183M 184				
R3	1	00000003		U			428	132M 133M 135				
R4	1	00000004		U			429	151M 152M 153 196M 197M 198				
R5	1	00000005		U			430	43U				
R6	1	00000006		U			431	106				
R7	1	00000007		U			432	65M 67U 80D 90M 92U				
R8	1	00000008		U			433	124M 125M 126 134M 135 142M 143 144 148 161 190M 191				
								193 205M 206 208				
R9	1	00000009		U			434	129M 150M 153 156M 165M 188M 195M 198				
SAVEAREA	4	00000238	00000001	F	F		236	69M 70 94M 95 209				

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

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[illegible]



Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.21
DSTABLE	00000024	FFFFFFFF	242	4	DSTABLE			
FAS	00000120	FFFFFFFE	284		PRIMARY INPUT			

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		DSTABLE	FSAREA
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
43		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001B	208	DSTABLE,R5			
64		USING	Ordinary	00000001	00000000	00001000	15	0008E	65	IHIIBOOL,R15			
66		DROP					15			R15			
67		USING	Ordinary	00000001	0000008E	00001000	7	001AE	78	COMMON,R7			
80		DROP					7			R7			
89		USING	Ordinary	00000001	0000004A	00001000	15	00044	90	IHIIBOAR,R15			
91		DROP					15			R15			
92		USING	Ordinary	00000001	0000008E	00001000	7	001F2	218	COMMON,R7			

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIIB0      PROCSTEP: X390

Primary input: lines      1 to      238 of SYSD.ALGOLFRT.ASM(IHIIB0)

SYSLIB library records read: 362

SYSUT1 work file size: 41800 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 19040 bytes

SYSLIN file records written: 14

TXA000I Return code 0, elapsed time 0.28 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIIB00L 000282 6

**IHIIDE**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYS1.ALGOLFRT.ASM(IHIIDE)
SYSLIB	SYS1.MACLIB
	SYS1.TOOLS.MACLIB
	SYS1.ALGOLFRT.ASM
	SYS1.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00150
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	SCAN INPUT BUFFER UNTIL A VALID NUMBER IS FOUND TRANSFER		00008001
				9 *	TO BINARY AND STORE INTO SECOND PARAMETER		00009001
				10 *			00010001
				11 *	ENTRY POINTS -		00011001
				12 *	IHIIDEIR - FROM -	GENERATED OBJECT MODULE - INREAL	00012001
				13 *	IHIIDEII - FROM -	GENERATED OBJECT MODULE - ININTEGER	00013001
				14 *	LA	R1,PARMLIST	00014001
				15 *	BALR	R14,R15	00015001
				16 *	DATA	PASSED BY NAME	00016001
				17 *	IHIIDEAI - FROM -	ARRAY MODULE IHIIR	00017001
				18 *	L	R7,A(DESTINATION)	00018001
				19 *	L	R10,FLAG	00019001
				20 *	BALR	R14,R15	00020001
				21 *	DATA	PASSED BY NAME	00021001
				22 *			00022001
				23 *	INPUT -	N/A	00023001
				24 *			00024001
				25 *	OUTPUT -	N/A	00025001
				26 *			00026001
				27 *	EXTERNAL ROUTINES -		00027001
				28 *	IHIIR -	EVALUATE DATASET NUMBER	00028001
				29 *	-	OPEN DATASET	00029001
				30 *	-	CHANGE TO NEXT INPUT RECORD	00030001
				31 *	-	CONVERT REAL TO INTEGER	00031001
				32 *	IHIFSA -	CNVIRD, INTEGER TO REAL	00032001
				33 *	IHIPTT -	POWER OF TEN TABLE	00033001
				34 *			00034001
				35 *	TABLE/WORK AREAS -		00035001
				36 *	IPTAB -	TO EVALUATE CHARACTER FROM INPUT BUFFER WHEN	00036001
				37 *		SCANNING AND TO BRANCH TO CORRESPONDING SUBPROGRAM	00037001
				38 *	MB -	MANTISSA BUFFER FOR INTERMEDIATE STORING OF VALID	00038001
				39 *		DIGITS	00039001
				40 *			00040001
				41 *	EXITS -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00041001
				42 *			00042001
				43 *	EXITS -	ERROR - INPUT REQUEST BEYOND END OF DATASET NO 5	00043001
				44 *	-	EXP PART OF INPUT NUMBER CONSISTS OF	00044001
				45 *		MORE THAN 2 DIGITS NO 6	00045001
				46 *		BRANCH TO FSA	00046001
				47 *	LA	R13,IHIFSA	00047001
				48 *	B	FSAERR+XX*4(R13) XX CORRESPONDING	00048001
				49 *		ERROR NUMBER	00049001
				50 *			00050001
				51 *	NOTES -	LINKING TO IHIIDEAI DEVIATES FROM STANDARD SEE	00051001
				52 *	ABOVE		00052001
				53 *			00053001
000000		00000	006D2	54	IHIIDECM	CSECT	00054001
				55 *			00055001
				56	ENTRY	IHIIDEIR	00056001
				57	ENTRY	IHIIDEII	00057001
				58	ENTRY	IHIIDEAI	00058001
				59 *			00059001
				60 *	REGISTER CONTENTS ON ENTRY POINT	IHGIDEAI	00060001
				61 *			00061001
				62 *	R7	DESTINATION ADDR	00062001
				63 *	R10	FLAG BYTE	00063001
				64 *			00064001
				65 *	FLOATING POINT	REGISTERS	00065001
				66 *			00066001
		00000		67	FPR0	EQU 0	00067001
				68 *			00068001
				69 *	OTHER GENERAL	REGISTERS	00069001
				70 *			00070001
				71 *	R5	-> DSTABLE ENTRY	00071001
				72 *	R6	DATASET NUMBER	00072001
				73 *	R13	BASE REGISTER FOR	00073001
				74 *	R7	-> DESTINATION	00074001
				75 *	R4	CHARACTER POINTER	00075001
				76 *	R0	INTEGER NUMBER	00076001
				77 *	R8	MANTISSA BUFFER POINTER	00077001
				78 *	R9	EXPONENT BUFFER POINTER	00078001
				79 *	R10	DECIMAL POINT POINTER	00079001
				80 *	R11	EXPONENT LESS EIGHT	00080001
				81 *	R15	-> POWERTEN TABLE LESS EIGHT	00081001
				82 *			00082001
		R:5	00000	83	USING	DSTABLE,R5	00083001
				84 *			00084001
				85 *	DISPLACEMENTS IN	ADRLST IN IHIFSA	00085001
				86 *			00086001
		00000		87	CI	EQU 0 DISPLACEMENT FOR -	00087001
		00004		88	CL	EQU 4 IHIIRCL	00088001
		00008		89	EV	EQU 8 IHIIOREV	00089001
		0000C		90	NX	EQU 12 IHIIORNX	00090001
		00010		91	OP	EQU 16 IHIIOROP	00091001
		00014		92	OQ	EQU 20 IHIIOROQ	00092001
				93 *			00093001
				94	IHIIDEAI	SAVE (14,12),, 'IHIIDEAI LEVEL 2.1 &SYSDATE &SYSTIME'	00094001
000000	47F0	F026	00026	95+	IHIIDEAI	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			96+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C9C4C5C1C9			97+	DC	CL32 'IHIIDEAI LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000025	F1			98+	DC	CL1'1'	IDENTIFIER 01-SAVE
000026	90EC D00C		0000C	99+	STM	14,12,12(13)	SAVE REGISTERS 01-SAVE
		R:F	00000	100 *			00095001
00002A	183D			101	USING	IHIIDEAI,R15	00096001
00002C	41D0 F688		00688	102	LR	R3,R13	00097001
000030	5030 D004		00004	103	LA	R13,SAVEAREA	00098001
000034	50D0 3008		00008	104	ST	R3,4(,R13)	00099001
000038	4130 F0CC		000CC	105	ST	R13,8(,R3)	00100001
				106	LA	R3,COMMON	00101001
				107	DROP	R15	00102001
		R:3	000CC	108	USING	COMMON,R3	00103001
00003C	42A0 3496		00562	109	STC	R10,FKT	STORE FLAG BYTE 00104001
000040	47F0 300E		000DA	110	B	LADDRA	00105001
				111 *			00106001
				112	DROP	R3	00107001
				113 *			00108001
000044	47F0 F026		00026	114	IHIIDEII	SAVE (14,12),, 'IHIIDEII LEVEL 2.1 &SYSDATE &SYSTIME'	00109001
000048	21			115+	IHIIDEII	B 38(0,15)	BRANCH AROUND ID 01-SAVE
000049	C9C8C9C9C4C5C9C9			116+	DC	AL1(33)	LENGTH OF IDENTIFIER 01-SAVE
000069	F1			117+	DC	CL32'IHIIDEII LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
00006A	90EC D00C		0000C	118+	DC	CL1'1'	IDENTIFIER 01-SAVE
				119+	STM	14,12,12(13)	SAVE REGISTERS 01-SAVE
		R:F	00044	120 *			00110001
00006E	18CD			121	USING	IHIIDEII,R15	00111001
000070	41D0 F644		00688	122	LR	R12,R13	00112001
000074	50C0 D004		00004	123	LA	R13,SAVEAREA	CHAIN SAVE AREAS 00113001
000078	50D0 C008		00008	124	ST	R12,4(,R13)	00114001
00007C	4130 F088		000CC	125	ST	R13,8(,R12)	00115001
				126	LA	R3,COMMON	00116001
				127	DROP	R15	00117001
		R:3	000CC	128	USING	COMMON,R3	00118001
000080	9204 3496		00562	129	MVI	FKT,X'04'	FLAG BYTE: ININTEGER 00119001
000084	47F0 3000		000CC	130	B	COMMON	00120001
				131 *			00121001
				132	DROP	R3	00122001
				133 *			00123001
000088	47F0 F026		00026	134	IHIIDEIR	SAVE (14,12),, 'IHIIDEIR LEVEL 2.1 &SYSDATE &SYSTIME'	00124001
00008C	21			135+	IHIIDEIR	B 38(0,15)	BRANCH AROUND ID 01-SAVE
00008D	C9C8C9C9C4C5C9D9			136+	DC	AL1(33)	LENGTH OF IDENTIFIER 01-SAVE
0000AD	F1			137+	DC	CL32'IHIIDEIR LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
0000AE	90EC D00C		0000C	138+	DC	CL1'1'	IDENTIFIER 01-SAVE
				139+	STM	14,12,12(13)	SAVE REGISTERS 01-SAVE
		R:F	00088	140 *			00125001
0000B2	18CD			141	USING	IHIIDEIR,R15	00126001
0000B4	41D0 F600		00688	142	LR	R12,R13	00127001
0000B8	50C0 D004		00004	143	LA	R13,SAVEAREA	CHAIN SAVE AREAS 00128001
0000BC	50D0 C008		00008	144	ST	R12,4(,R13)	00129001
0000C0	4130 F044		000CC	145	ST	R13,8(,R12)	00130001
				146	LA	R3,COMMON	00131001
				147	DROP	R15	00132001
		R:3	000CC	148	USING	COMMON,R3	00133001
0000C4	9200 3496		00562	149	MVI	FKT,X'00'	FLAG BYTE: INREAL 00134001
0000C8	47F0 3000		000CC	150	B	COMMON	00135001
				151 *			00136001
				152 *			00137001
				153 *			00138001
0000CC	58F0 C11C		0011C	154	COMMON	L R15,IORLST(,R12)	00139001
0000D0	58F0 F008		00008	155	L	R15,EV(,R15)	00140001
0000D4	05EF			156	BALR	R14,R15	00141001
				157 *			00142001
0000D6	5870 1004		00004	158	LADDR	L R7,4(,R1)	00143001
0000DA	94D0 501B		0001B	159	LADDR	NI DSF+1,255-DS10	SET DS10 = 0 00144001
0000DE	91FF 5019		00019	160	TM	Q,X'FF'	DATASET SECTIONED ? 00145001
0000E2	4770 343A		00506	161	BNZ	ERROR2	YES, INCOMPATIBLE ACTION 00146001
0000E6	4960 3604		006D0	162	CH	R6,=H'1'	DATASET NO = 1 ? 00147001
0000EA	4780 343A		00506	163	BE	ERROR2	YES, INCOMPATIBLE ACTION 00148001
0000EE	9180 501A		0001A	164	TM	DSF,DS0	DATASET OPEN ? 00149001
0000F2	4710 3036		00102	165	BO	DSOPEN	YES, BRANCH 00150001
0000F6	58F0 C11C		0011C	166	L	R15,IORLST(,R12)	NO, SETUP FOR OPEN REQUEST 00151001
0000FA	58F0 F010		00010	167	L	R15,OP(,R15)	00152001
0000FE	47F0 3056		00122	168	B	REQOPEN	DCB IS CLOSED, BRANCH TO OPEN IT 00153001
				169 *			00154001
000102	9120 501A		0001A	170	DSOPEN	TM DSF,DS2	LAST I/O OUTPUT ? 00155001
000106	4780 3042		0010E	171	BZ	DSOPENA	NO, BRANCH 00156001
00010A	47F0 3440		0050C	172	B	ERROR3	INPUT BEYOND LAST OUTPUT 00157001
				173 *			00158001
00010E	9102 501A		0001A	174	DSOPENA	TM DSF,DS6	OPEN FOR OUTPUT ? 00159001
000112	4780 305C		00128	175	BZ	SCAN	NO, BRANCH 00160001
000116	9101 501A		0001A	176	TM	DSF,DS7	00161001
00011A	4710 3446		00512	177	BO	ERROR5	END OF DATA REACHED 00162001
00011E	47F0 343A		00506	178	B	ERROR2	00163001
000122	94FD 501A		0001A	179	REQOPEN	NI DSF,255-DS6	SET DS6 = 0 00164001
000126	05EF			180	BALR	R14,R15	OPEN DATASET 00165001
000128	5840 5004		00004	181	SCAN	L R4,R	CHARACTER POINTER 00166001
00012C	4180 349B		00567	182	LA	R8,MB+1	MANTISSA BUFFER POINTER 00167001
000130	4190 344D		00579	183	LA	R9,MB+19	EXPONENT BUFFER POINTER 00168001
000134	D213 349B	349A	00567	184	MVC	MB+1(L'MB-1),MB	CLEAR BUFFER 00169001
00013A	0640			185	SCAN1	BCTR R4,0	DECREASE CHARACTER POINTER 00170001
00013C	924E 3498		00564	186	SCAN2	MVI SM,C'+'	MANTISSA SIGN INITIALLY PLUS 00171001
000140	9200 3497		00563	187	SCAN2A	MVI F,0	CLEAR FLAG BYTE F 00172001
000144	924E 3499		00565	188	MVI	SE,C'+'	EXPONENT SIGN INITIALLY PLUS 00173001
000148	4140 4001		00001	189	SCAN3	LA R4,1(,R4)	00174001
00014C	5940 5008		00008	190	C	R4,RE	00175001
000150	4770 30AA		00176	191	BNE	SCAN5	R IS NOT EQUAL RECORD END(RE) 00176001
000154	9182 3497		00563	192	SCAN4	TM F,X'82'	RECORD END IS REACHED (R=RE) ? 00177001
000158	4770 323A		00306	193	BNZ	DELIMIT	A VALID NUMBER HAS BEEN READ 00178001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00015C	58F0 C11C		0011C	194	L	R15,IORLST(,R12)	00179001
000160	58F0 F00C		0000C	195	L	R15,NX(,R15)	00180001
000164	05EF			196	BALR	R14,R15	00181001
000166	5840 5004		00004	197	L	R4,R	00182001
00016A	9101 501A	0001A		198	TM	DSF,DS7	00183001
00016E	4710 3446		00512	199	BO	ERROR5	00184001
000172	47F0 306E		0013A	200	B	SCAN1	00185001
				201	*		00186001
000176	1B22			202	SCAN5	SR R2,R2	00187001
000178	DDFF 4000 34B9 00000	00585		203	TRT	0(256,R4),IPTAB	00188001
00017E	1BFF			204	SR	R15,R15	00189001
000180	47F2 30B4		00180	205	B	*(R2)	00190001
000184	47F0 30D0		0019C	206	BRANCH	B BLANK	+04 00191001
000188	47F0 30F6		001C2	207	B	OTHERS	+08 00192001
00018C	47F0 3102		001CE	208	B	DIGIT	+12 00193001
000190	47F0 3190		0025C	209	B	SIGN	+16 00194001
000194	47F0 31CC		00298	210	B	DECP	+20 00195001
000198	47F0 3208		002D4	211	B	APOSTR	+24 00196001
				212	*		00197001
00019C	41F0 F001		00001	213	BLANK	LA R15,1(,R15)	00198001
0001A0	4140 4001		00001	214	LA	R4,1(,R4)	00199001
0001A4	5940 5008		00008	215	C	R4,RE	00200001
0001A8	4780 3088		00154	216	BE	SCAN4	00201001
0001AC	9540 4000	00000		217	CLI	0(R4),C' '	00202001
0001B0	4780 30D0		0019C	218	BE	BLANK	00203001
0001B4	1B22			219	SR	R2,R2	00204001
0001B6	4320 5018		00018	220	IC	R2,K	00205001
0001BA	19F2			221	CR	R15,R2	00206001
0001BC	4740 30AA		00176	222	BL	SCAN5	< K BLANKS, EVAL NEXT CHARACTER 00207001
0001C0	0640			223	BCTR	R4,0	K BLANKS READ, DECREASE R 00208001
0001C2	9182 3497	00563		224	OTHERS	TM F,X'82'	00209001
0001C6	4780 3070		0013C	225	BZ	SCAN2	NO VALID NUMBER READ, NEW SCAN 00210001
0001CA	47F0 323A		00306	226	B	DELIMIT	A VALID NUMBER AND K BLANKS READ 00211001
				227	*		00212001
0001CE	9108 3497	00563		228	DIGIT	TM F,X'08'	00213001
0001D2	4710 315C		00228	229	BO	DIGIT1	EXPONENT DIGIT 00214001
0001D6	9140 3497	00563		230	TM	F,X'40'	00215001
0001DA	4780 3136		00202	231	BZ	DIGIT2	FIRST MANTISSA DIGIT 00216001
0001DE	1989			232	CR	R8,R9	00217001
0001E0	4740 311C		001E8	233	BL	DIGIT3	< 19 MANTISSA DIGITS 00218001
0001E4	47F0 3122		001EE	234	B	DIGIT3A	00219001
				235	*		00220001
0001E8	D200 8000 4000 00000	00000		236	DIGIT3	MVC 0(1,R8),0(R4)	00221001
0001EE	4180 8001		00001	237	DIGIT3A	LA R8,1(,R8)	00222001
0001F2	9120 3497	00563		238	TM	F,X'20'	00223001
0001F6	4780 307C		00148	239	BZ	SCAN3	NO DEC POINT IS READ, NEXT CHAR 00224001
0001FA	9610 3497	00563		240	OI	F,X'10'	F3 = 1 DIGIT BEHIND DEC PT READ 00225001
0001FE	47F0 307C		00148	241	B	SCAN3	00226001
				242	*		00227001
000202	95F0 4000	00000		243	DIGIT2	CLI 0(R4),C'0'	00228001
000206	4780 3146		00212	244	BE	DIGIT2A	00229001
00020A	96C0 3497	00563		245	OI	F,X'C0'	F0, F1 = 1 MANTISSA DIGIT - 0 00230001
00020E	47F0 311C		001E8	246	B	DIGIT3	00231001
				247	*		00232001
000212	9680 3497	00563		248	DIGIT2A	OI F,X'80'	F0 = 1 LEADING ZERO 00233001
000216	9120 3497	00563		249	TM	F,X'20'	00234001
00021A	4780 307C		00148	250	BZ	SCAN3	00235001
00021E	06A0			251	BCTR	R10,0	00236001
000220	9610 3497	00563		252	OI	F,X'10'	DECR DECIMAL POINT POINTER F3 = 1 DIGIT BEHIND DEC P READ 00237001
000224	47F0 307C		00148	253	B	SCAN3	00238001
				254	*		00239001
000228	9101 3497	00563		255	DIGIT1	TM F,X'01'	00240001
00022C	4780 317C		00248	256	BZ	DIGIT4	NO EXP DIGIT NOT 0 WAS READ 00241001
000230	4120 34AF		0057B	257	LA	R2,MB+21	END OF EXPONENT BUFFER 00242001
000234	1992			258	CR	R9,R2	00243001
000236	4780 344C		00518	259	BNL	ERROR6	00244001
00023A	D200 9000 4000 00000	00000		260	DIGIT5	MVC 0(1,R9),0(R4)	00245001
000240	4190 9001		00001	261	LA	R9,1(,R9)	DIGIT INTO EXPONENT BUFFER INCREASE EXPONENT POINTER 00246001
000244	47F0 307C		00148	262	B	SCAN3	EVALUATE NEXT CHARACTER 00247001
				263	*		00248001
000248	9602 3497	00563		264	DIGIT4	OI F,X'02'	F6 = 1 ANY EXPONENT DIGIT READ 00249001
00024C	95F0 4000	00000		265	CLI	0(R4),C'0'	00250001
000250	4780 307C		00148	266	BE	SCAN3	EVALUATE NEXT CHARACTER 00251001
000254	9601 3497	00563		267	OI	F,X'01'	F7 = 1 EXPONENT DIGIT - 0 READ 00252001
000258	47F0 316E		0023A	268	B	DIGIT5	00253001
				269	*		00254001
00025C	9108 3497	00563		270	SIGN	TM F,X'08'	00255001
000260	4710 31A4		00270	271	BO	SIGN1	SIGN FOLLOWED AN APOSTROPHE 00256001
000264	9180 3497	00563		272	TM	F,X'80'	00257001
000268	4710 323A		00306	273	BO	DELIMIT	SIGN FOLLOWED A MANTISSA DIGIT 00258001
00026C	47F0 31B4		00280	274	B	SIGN2	00259001
				275	*		00260001
000270	9106 3497	00563		276	SIGN1	TM F,X'06'	00261001
000274	4780 31BE		0028A	277	BZ	SIGN2A	EXPONENT SIGN 00262001
000278	9182 3497	00563		278	TM	F,X'82'	00263001
00027C	4770 323A		00306	279	BNZ	DELIMIT	SIGN FOLLOWED A VALID NUMBER 00264001
000280	D200 3498 4000 00000	00564	00000	280	SIGN2	MVC SM,0(R4)	MANTISSA SIGN 00265001
000286	47F0 3074		00140	281	B	SCAN2A	NEW SCAN 00266001
				282	*		00267001
00028A	D200 3499 4000 00565	00000		283	SIGN2A	MVC SE,0(R4)	EXPONENT SIGN 00268001
000290	9604 3497	00563		284	OI	F,X'04'	F5 = 1 EXPONENT SIGN READ 00269001
000294	47F0 307C		00148	285	B	SCAN3	EVALUATE NEXT CHARACTER 00270001
				286	*		00271001
000298	9128 3497	00563		287	DECP	TM F,X'28'	00272001
00029C	4780 31FA		002C6	288	BZ	DECP1	NO DEC POINT OR APOST BEFORE 00273001
0002A0	9182 3497	00563		289	TM	F,X'82'	00274001

Loc	Object	Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21	
0002A4	4770	323A		00306	290	BNZ	DELIMIT	DEC PT FOLLOWED A VALID NUMBER 00275001	
0002A8	9108	3497	00563		291	TM	F,X'08'	00276001	
0002AC	4710	31EC		002B8	292	BO	DECPTA	DEC POINT FOLLOWED APOSTROPHE 00277001	
0002B0	924E	3498	00564		293	MVI	SM,C'+'	MANTISSA SIGN INITIALLY PLUS 00278001	
0002B4	47F0	307C		00148	294	B	SCAN3	NEW SCAN 00279001	
					295	*		00280001	
0002B8	D200	3498	3499	00564	00565	296	DECPTA MVC	EXP SIGN IS ASSIGNED TO MANTSIGN 00281001	
0002BE	924E	3499		00565	297	MVI	SE,C'+'	EXPONENT SIGN INITIALLY PLUS 00282001	
0002C2	9200	3497		00563	298	MVI	F,0	CLEAR FLAG BYTE F 00283001	
0002C6	9620	3497		00563	299	DECPT1 OI	F,X'20'	F2 = 1 DEC POINT WAS READ 00284001	
0002CA	18A8				300	LR	R10,R8	STATE OF MANT POINTER INTO R10 00285001	
0002CC	5040	3464		00530	301	ST	R4,DPI	STATE OF CHAR POINTER INTO DPI 00286001	
0002D0	47F0	307C		00148	302	B	SCAN3	NEXT CHARACTER 00287001	
					303	*		00288001	
0002D4	9108	3497		00563	304	APOSTR TM	F,X'08'	00289001	
0002D8	4710	3218		002E4	305	BO	APOSTRA	AN APOSTROPHE WAS ALREADY READ 00290001	
0002DC	9130	3497		00563	306	TM	F,X'30'	00291001	
0002E0	47B0	322E		002FA	307	BNM	APOSTR1	A VALID NUMBER WAS READ 00292001	
0002E4	9182	3497		00563	308	APOSTRA TM	F,X'82'	APOSTROPHE FOLLOWED DEC POINT 00293001	
0002E8	4770	323A		00306	309	BNZ	DELIMIT	NUMBER BEFORE DEC POINT IS VALID 00294001	
0002EC	D200	3498	3499	00564	00565	310	MVC	SM,SE	EXP SIGN IS ASSIGNED TO MANT SIGN 00295001
0002F2	924E	3499		00565	311	MVI	SE,C'+'	EXPONENT SIGN INITIALLY PLUS 00296001	
0002F6	9200	3497		00563	312	MVI	F,0	CLEAR FLAG BYTE F 00297001	
0002FA	9608	3497		00563	313	APOSTR1 OI	F,X'08'	APOSTROPHE WAS READ F4.=1 00298001	
0002FE	5040	3460		0052C	314	ST	R4,API	STATE OF CHAR POINTER INTO API 00299001	
000302	47F0	307C		00148	315	B	SCAN3	EVALUATE NEXT CHARACTER 00300001	
					316	*		00301001	
000306	9130	3497		00563	317	DELIMIT TM	F,X'30'	00302001	
00030A	47B0	324E		0031A	318	BNM	DELIMIT1	MANTISSA PART IS VALID 00303001	
00030E	5840	3464		00530	319	L	R4,DPI	CHAR POINTER OF DEC POINT INTO R 00304001	
000312	94DF	3497		00563	320	NI	F,X'DF'	F2.=0 NO DEC POINT WAS READ 00305001	
000316	47F0	325E		0032A	321	B	DELIMIT2	00306001	
					322	*		00307001	
00031A	910A	3497		00563	323	DELIMIT1 TM	F,X'0A'	00308001	
00031E	47B0	325E		0032A	324	BNM	DELIMIT2	EXPONENT PART IS VALID 00309001	
000322	5840	3460		0052C	325	L	R4,API	CHAR PTR OF APOSTROPHE INTO R 00310001	
000326	94F3	3497		00563	326	NI	F,X'F3'	00311001	
00032A	5940	5008		00008	327	DELIMIT2 C	R4,RE	00312001	
00032E	4770	327A		00340	328	BNE	DELIMITB	00313001	
000332	58F0	C11C		0011C	329	DELIMITC L	R15,10RLST(,R12)	00314001	
000336	58F0	F00C		0000C	330	L	R15,NX(,R15)	REQUEST NEXT RECORD 00315001	
00033A	05EF				331	BALR	R14,R15	RECORD CHANGE IS PERFORMED 00316001	
00033C	47F0	3284		00350	332	B	DELIMIT3	00317001	
					333	*		00318001	
000340	4140	4001		00001	334	DELIMITB LA	R4,1(,R4)	INCR CHARACTER POINTER 00319001	
000344	5940	5008		00008	335	C	R4,RE	00320001	
000348	47B0	3266		00332	336	BE	DELIMITC	00321001	
00034C	5040	5004		00004	337	ST	R4,R	STORE CHAR POINTER TO DSTABLE 00322001	
000350	9128	3497		00563	338	DELIMIT3 TM	F,X'28'	TEST TYPE OF NUMBER 00323001	
000354	4770	330A		003D6	339	BNZ	TRREAL	REAL TYPE NUMBER 00324001	
000358	9140	3497		00563	340	TM	F,X'40'	00325001	
00035C	4710	329A		00366	341	BO	DELIMITD	NUMBER -= ZERO 00326001	
000360	1B00				342	SR	R0,R0	00327001	
000362	47F0	32D8		003A4	343	B	TRINT1	NUMBER = ZERO 00328001	
					344	*		00329001	
000366	4120	34A5		00571	345	DELIMITD LA	R2,MB+11	00330001	
00036A	1982				346	CR	R8,R2	00331001	
00036C	4720	330A		003D6	347	BH	TRREAL	> 10 DIGITS READ, REAL 00332001	
000370	4740	32B2		0037E	348	BL	DELIMITH	< 10 DIGITS READ, INTEGER 00333001	
000374	D509	349B	34AF	00567	0057B	349	CLC	MB+1(10),DMINT	10 DIGITS WERE READ 00334001
00037A	47B0	330A		003D6	350	BNL	TRREAL	NUMBER GREATER (2**31)-1, REAL 00335001	
00037E	4120	349C		00568	351	DELIMITH LA	R2,MB+2	00336001	
000382	1B82				352	SR	R8,R2	NUMBER OF DIGITS DECR BY ONE 00337001	
000384	4480	3428		004F4	353	EX	R8,PACK	PACK NUMBER 00338001	
000388	954E	3498		00564	354	CLI	SM,C'+'	TEST SIGN OF THE NUMBER 00339001	
00038C	4770	32CC		00398	355	BNE	DELIMITE	00340001	
000390	960F	34AB		00577	356	OI	MB+17,X'0F'	00341001	
000394	47F0	32D4		003A0	357	B	DELIMITF	00342001	
					358	*		00343001	
000398	960D	34AB		00577	359	DELIMITE OI	MB+17,X'0D'	00344001	
00039C	94FD	34AB		00577	360	NI	MB+17,X'FD'	00345001	
0003A0	4F00	34A4		00570	361	DELIMITF CVB	R0,MB+10	00346001	
0003A4	4120	0004		00004	362	TRINT1 LA	R2,4	00347001	
0003A8	9504	3496		00562	363	CLI	FKT,X'04'	00348001	
0003AC	4780	341A		004E6	364	BE	FIN3	CONVERSION NOT REQ, FKT=INTEGER 00349001	
					365	*		00350001	
					366	*	CALL CONVERSION ROUTINE (LOADED IN FSA)	00351001	
					367	*		00352001	
0003B0	90ED	D008		00008	368	STM	R14,R13,8(R13)	ALL REGISTERS INTO SAVEAREA 00353001	
0003B4	182D				369	LR	R2,R13	R2 -> SAVE AREA 00354001	
0003B6	4170	C120		00120	370	LA	R7,ACNVIRD(,R12)	00355001	
0003BA	18E0				371	LR	R14,R0	INTEGER INTO R14 00356001	
0003BC	18DC				372	LR	R13,R12	R13 -> FSA 00357001	
0003BE	0587				373	BALR	R8,R7	00358001	
0003C0	98ED	2008		00008	374	LM	R14,R13,8(R2)	RESTORE REGS 00359001	
0003C4	1B22				375	SR	R2,R2	00360001	
			R:C	00000	376	USING	FSAAREA,R12	00361001	
				000C2	377	TM	OPTSW(R12),X'20'	LONG OR SHORT PRECISION ? 00362001	
0003C6	9120	C0C2			378	BZ	FIN3	LONG PRECISION STATED 00363001	
0003CA	4780	341A		004E6	379	LA	R2,8	00364001	
0003CE	4120	0008		00008	380	B	FIN3	00365001	
0003D2	47F0	341A		004E6	381	*		00366001	
0003D6	2F00				382	TRREAL SWR	FPR0,FPR0	00367001	
0003D8	91C0	3497		00563	383	TM	F,X'C0'	00368001	
0003DC	4710	3322		003EE	384	BO	TRREALA	00369001	
0003E0	4740	33E8		004B4	385	BM	FIN	MANTISSA IS ZERO 00370001	

Active USINGS: FSAAREA,R12 IHIIDECM+X'CC',R3 DSTABLE,R5

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0003E4	1BA4			386	SR	R10,R10	00371001
0003E6	6800 3474		00540	387	LD	FPR0,KFPD1	00372001
0003EA	47F0 3362		0042E	388	B	TRREAL1	00373001
				389	*		00374001
0003EE	9120 3497	00563		390	TRREALA	TM F,X'20'	00375001
0003F2	4710 332C		003F8	391	BO	TRREALB	00376001
0003F6	18A8			392	LR	R10,R8	00377001
0003F8	4120 34A4		00570	393	TRREALB	LA R2,MB+10	00378001
0003FC	1BA2			394	SR	R10,R2	00379001
0003FE	F278 349C 349B	00568	00567	395	TRREAL2	PACK MB+2(8),MB+1(9)	00380001
000404	960F 34A3	0056F		396	OI	MB+9,X'0F'	00381001
000408	4F00 349C		00568	397	CVB	R0,MB+2	00382001
00040C	5000 3488		00554	398	ST	R0,MASK+4	00383001
000410	6A00 3484		00550	399	AD	FPR0,MASK	00384001
000414	1982			400	CR	R8,R2	00385001
000416	47D0 3362		0042E	401	BNH	TRREAL1	00386001
00041A	6C00 347C		00548	402	MD	FPR0,TPNINE	00387001
00041E	5BA0 3458		00524	403	S	R10,KF9	00388001
000422	1B88			404	SR	R8,R8	00389001
000424	F278 349C 34A4	00568	00570	405	PACK	MB+2(8),MB+10(9)	00390001
00042A	47F0 3338		00404	406	B	TRREAL2+6	00391001
				407	*		00392001
00042E	954E 3498	00564		408	TRREAL1	CLI SM,C'+'	00393001
000432	4780 336C		00438	409	BE	TRREAL1A	00394001
000436	2300			410	LCDR	FPR0,FPR0	00395001
000438	1B00			411	TRREAL1A	SR R0,R0	00396001
00043A	9101 3497	00563		412	TM	F,X'01'	00397001
00043E	4780 33A0		0046C	413	BZ	TRREAL3	00398001
000442	940F 34AD	00579		414	NI	MB+19,X'0F'	00399001
000446	4300 34AD		00579	415	IC	R0,MB+19	00400001
00044A	91FF 34AE	0057A		416	TM	MB+20,X'FF'	00401001
00044E	4780 3396		00462	417	BZ	TRREAL3A	00402001
000452	4C00 3494		00560	418	MH	R0,KH10	00403001
000456	1820			419	LR	R2,R0	00404001
000458	940F 34AE	0057A		420	NI	MB+20,X'0F'	00405001
00045C	4300 34AE		0057A	421	IC	R0,MB+20	00406001
000460	1A02			422	AR	R0,R2	00407001
000462	954E 3499	00565		423	TRREAL3A	CLI SE,C'+'	00408001
000466	4780 33A0		0046C	424	BE	TRREAL3	00409001
00046A	1300			425	LCR	R0,R0	00410001
00046C	1AA0			426	TRREAL3	AR R10,R0	00411001
00046E	4780 33E8		004B4	427	BZ	FIN	00412001
000472	58F0 3454		00520	428	L	R15,VPTTAB	00413001
000476	4720 33B2		0047E	429	BP	TRREAL3B	00414001
00047A	41FF 0080		00080	430	LA	R15,128(R15)	00415001
00047E	10AA			431	TRREAL3B	LPR R10,R10	00416001
000480	1BBB			432	SR	R11,R11	00417001
000482	8EA0 0003	00003		433	SRDA	R10,3	00418001
000486	8BA0 0003	00003		434	SLA	R10,3	00419001
00048A	4780 33DA		004A6	435	TRREAL5	BZ TRREAL4A	00420001
00048E	59A0 345C		00528	436	C	R10,KF72	00421001
000492	47D0 33D6		004A2	437	BNH	TRREAL4	00422001
000496	6C00 F080		00080	438	MD	FPR0,128(,R15)	00423001
00049A	5BA0 345C		00528	439	S	R10,KF72	00424001
00049E	47F0 33BE		0048A	440	B	TRREAL5	00425001
				441	*		00426001
0004A2	6C0A F038		00038	442	TRREAL4	MD FPR0,56(R10,R15)	00427001
0004A6	88B0 001A		0001A	443	TRREAL4A	SRL R11,26	00428001
0004AA	12BB			444	LTR	R11,R11	00429001
0004AC	4780 33E8		004B4	445	BZ	FIN	00430001
0004B0	6C0B F000		00000	446	MD	FPR0,0(R11,R15)	00431001
0004B4	1B22			447	FIN	SR R2,R2	00432001
0004B6	9120 C0C2	000C2		448	TM	OPTSW(R12),X'20'	00433001
0004BA	4780 3404		004D0	449	BZ	FIN1	00434001
0004BE	6000 346C		00538	450	STD	FPR0,BUFF	00435001
0004C2	D200 348C 346C	00558		451	MVC	ROUND(1),BUFF	00436001
0004C8	6A00 348C		00558	452	AD	FPR0,ROUND	00437001
0004CC	4120 0008		00008	453	LA	R2,8	00438001
0004D0	9500 3496	00562		454	FIN1	CLI FKT,0	00439001
0004D4	4780 341A		004E6	455	BE	FIN3	00440001
0004D8	4120 0004		00004	456	LA	R2,4	00441001
0004DC	58F0 C11C		0011C	457	L	R15,IORLST(,R12)	00442001
0004E0	58F0 F000		00000	458	L	R15,CI(,R15)	00443001
0004E4	05EF			459	BALR	R14,R15	00444001
0004E6	4402 342E		004FA	460	FIN3	EX 0,STORE(R2)	00445001
0004EA	58D0 35C0		0068C	461	L	R13,SAVEAREA+4	00446001
				462	*		00447001
				463		RETURN (14,12)	00448001
0004EE	98EC D00C		0000C	464+	LM	14,12,12(13)	01-RETUR
0004F2	07FE			465+	BR	14	01-RETUR
				466	*		00449001
0004F4	F270 34A4 349B	00570	00567	467	PACK	PACK MB+10(8),MB+1(0)	00450001
0004FA	6000 7000		00000	468	STORE	STD FPR0,0(,R7)	00451001
0004FE	5000 7000		00000	469	ST	R0,0(,R7)	00452001
000502	7000 7000		00000	470	STE	FPR0,0(,R7)	00453001
				471	*		00454001
000506	18DC			472	ERROR2	LR R13,R12	00455001
000508	47FC 01D4		001D4	473	B	FSAERR+2*4(R12)	00456001
				474	*		00457001
00050C	18DC			475	ERROR3	LR R13,R12	00458001
00050E	47FC 01D8		001D8	476	B	FSAERR+3*4(R12)	00459001
				477	*		00460001
000512	18DC			478	ERROR5	LR R13,R12	00461001
000514	47FC 01E0		001E0	479	B	FSAERR+5*4(R12)	00462001
				480	*		00463001
000518	18DC			481	ERROR6	LR R13,R12	00464001



Active USINGS: FSAAREA,R12 IHIIDECM+X'CC',R3 DSTABLE,R5

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00051A	47FC 01E4		001E4	482	B	FSAERR+6*4(R12)	MORE TH.2DIGITS 00465001
				483 *			00466001
				484 *	EXTERNAL	ADDRS	00467001
				485 *			00468001
00051E	0000						
000520	00000000			486	VPTTAB	DC V(IHIPTTAB)	00469001
				487 *			00470001
		00120		488	ACNVIRD	EQU X'120'	00471001
				489 *			00472001
				490 *	INTERNAL	CONSTANTS AND STORAGE	00473001
				491 *			00474001
000524	00000009			492	KF9	DC F'9'	FOR SHIFT OF DECIMAL POINT 00475001
000528	00000048			493	KF72	DC F'72'	FOR EXPONENT TREATMENT 00476001
00052C	00000000			494	API	DC A(0)	CHARACTER POINTER OF APOSTROPHE 00477001
000530	00000000			495	DPI	DC A(0)	CHARACTER POINTER OF DEC POINT 00478001
000534	00000000						
000538	0000000000000000			496	BUFF	DC D'0'	FOR CONVERSION OF NUMBER 00479001
000540	4110000000000000			497	KFPD1	DC D'1.0'	00480001
000548	483B9ACA00000000			498	TPNINE	DC DE9'1'	10**9 00481001
000550	4E00000000000000			499	MASK	DC FL8556'78'	FLOAT 0 WITH EXPONENT 78 00482001
000558	0000000080000000			500	ROUND	DC X'0000000080000000'	FOR CONVERSION OF NUMBER 00483001
000560	000A			501	KH10	DC H'10'	FOR EXPONENT TREATMENT 00484001
000562	00			502	FKT	DC X'00'	FLAG BYTE 00485001
000563	00			503	F	DC X'00'	FLAG BYTE 00486001
000564	40			504	SM	DC C' '	00487001
000565	40			505	SE	DC C' '	00488001
000566	0000000000000000			506	MB	DC XL21'00'	MANTISSA BUFFER 00489001
00057B	F2F1F4F7F4F8F3F6			507	DMINT	DC C'2147483648'	2**31 00490001
				508 *			00491001
000585	0808080808080808			509	IPTAB	DC 64X'08'	OTHERS 00492001
0005C5	04			510		DC X'04'	BLANK 00493001
0005C6	0808080808080808			511		DC 10X'08'	OTHERS 00494001
0005D0	14			512		DC X'14'	DECIMAL POINT 00495001
0005D1	0808			513		DC 2X'08'	OTHERS 00496001
0005D3	10			514		DC X'10'	SIGN + 00497001
0005D4	0808080808080808			515		DC 17X'08'	OTHERS 00498001
0005E5	10			516		DC X'10'	SIGN - 00499001
0005E6	0808080808080808			517		DC 28X'08'	OTHERS 00500001
000602	18			518		DC X'18'	APOSTROPHE 00501001
000603	0808080808080808			519		DC 114X'08'	OTHERS 00502001
000675	0C0C0C0C0C0C0C0C			520		DC 10X'0C'	DIGITS 0 TO 9 00503001
00067F	08080808080808			521		DC 6X'08'	OTHERS 00504001
				522 *			00505001
000685	000000						
000688	0000000000000000			523	SAVEAREA	DC 18F'0'	00506001
				524 *			00507001
0006D0				525	LTORG		00508001
0006D0	0001			526		=H'1'	
				527 *			
				528	DSTABLE	DSECT=YES	00509001
000000		00000	00024	529+DSTABLE	DSECT		00510001
				530+*			01-DSTAB
000000	00000000			531+ADCB	DC	F'0'	-> DCB 01-DSTAB
000004	00000000			532+R	DC	F'0'	CHARACTER POINTER 01-DSTAB
000008	00000000			533+RE	DC	F'0'	01-DSTAB
00000C	00000000			534+NBB	DC	F'0'	01-DSTAB
000010	00000000			535+BB	DC	F'0'	01-DSTAB
000014	0001			536+S	DC	H'1'	RECORD POINTER 01-DSTAB
000016	0050			537+P	DC	H'80'	RECORD LENGTH 01-DSTAB
000018	02			538+K	DC	X'02'	NUMBER OF BLANK DELIM CHARS 01-DSTAB
000019	00			539+Q	DC	X'00'	NO OF RECORDS PER SECTION 01-DSTAB
00001A	0000			540+DSF	DC	H'00'	DATASET FLAGS 01-DSTAB
				541+*			01-DSTAB
				542+*	DATASET	FLAGS - DSF	01-DSTAB
				543+*			01-DSTAB
		00080		544+DS0	EQU	X'80'	DATASET OPEN 01-DSTAB
		00040		545+DS1	EQU	X'40'	01-DSTAB
		00020		546+DS2	EQU	X'20'	LAST I/O OUTPUT 01-DSTAB
		00010		547+DS3	EQU	X'10'	01-DSTAB
		00008		548+DS4	EQU	X'08'	01-DSTAB
		00004		549+DS5	EQU	X'04'	01-DSTAB
		00002		550+DS6	EQU	X'02'	OPEN FOR OUTPUT 01-DSTAB
		00001		551+DS7	EQU	X'01'	END OF FILE 01-DSTAB
				552+*			01-DSTAB
				553+*	DATASET	FLAGS - DSF+1	01-DSTAB
				554+*			01-DSTAB
		00080		555+DS8	EQU	X'80'	END OF DATA 01-DSTAB
		00040		556+DS9	EQU	X'40'	01-DSTAB
		00020		557+DS10	EQU	X'20'	OPENED BY SYSACT 12 01-DSTAB
		00010		558+DS11	EQU	X'10'	INDICATE IHIERR-ROUT 01-DSTAB
		00008		559+DSEOD	EQU	X'08'	01-DSTAB
		00004		560+DSIOERR	EQU	X'04'	I/O ERROR 01-DSTAB
		00002		561+DS14	EQU	X'02'	DATASET OPENED 01-DSTAB
		00001		562+DS15	EQU	X'01'	CLOSE FROM IHIERR 01-DSTAB
				563+*			01-DSTAB
00001C	00000000			564+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			565+BL	DC	H'0'	LRECL+ TWO ARB 01-DSTAB
000022	0000			566+	DC	H'0'	01-DSTAB
				567+*			01-DSTAB
		00024		568+DSTABLEL	EQU	*-DSTABLE	L'DSTABLE ENTRY 01-DSTAB
				569+*			01-DSTAB
				570 *			00511001
000000		00000	00120	571	FSAAREA	DSECT	00512001
				572 *			00513001
				573	COPY	FSAREA	00514001
				574=*			00001001

D-Loc Object Code Addr1 Addr2 Stmt Source Statement X390 3.1.04 2012/08/17 13.21

				575=*	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				576=*		00003001
				577=*	STATUS - LEVEL 2.1	00004001
				578=*		00005001
				579=*****		00006001
				580=*		00007001
				581=*	COMMON DATA AREA	00008001
				582=*		00009001
				583=*	FSAREA	00010001
				584=*		00011001
				585=*****		00012001
				586=*		00013001
				587=*	DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				588=*	MODULES DURING THE EXECUTION	00015001
				589=*		00016001
				590=*	ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				591=*	SUBROUTINES) BY R12	00018001
				592=*		00019001
	00000			593=FSAREA	EQU *	00020001
				594=*		00021001
				595=*	SAVE AREAS	00022001
				596=*		00023001
000000				597=	DS 18F STANDARD SAVE AREA	00024001
	00048			598=ASAVE	EQU *-FSAREA ALTERNATE SAVE AREA USED BY	00025001
000048				599=	DS 18F CERTAIN SUBROUTINES	00026001
				600=*		00027001
				601=*	MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				602=*		00029001
	00090			603=FCTVALST	EQU *-FSAREA TEMPORARY STORAGE FOR	00030001
000090				604=	DS D FUNCTION VALUES	00031001
	00098			605=ASTLOC	EQU *-FSAREA DISPL FOR ADDR OF STAND LOCTN	00032001
000098 00000090				606=	DC A(FSAREA+FCTVALST)	00033001
	0009C			607=BRRST	EQU *-FSAREA TEMPORARY SAVE REG BRR	00034001
	0009C			608=HW	EQU BRRST TEMPORARY HALFWORD STORAGE	00035001
00009C				609=	DS F	00036001
	000A0			610=PROLREG	EQU *-FSAREA STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				611=	DS 2A A PROCEDURE IS FORMAL PARAM	00038001
				612=*		00039001
				613=*	HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				614=*		00041001
0000A8				615=	DS 0H	00042001
0000A8 00				616=	DC X'00'	00043001
	000A9			617=PROLPBN	EQU *-FSAREA STORAGE FOR CALLED PBN	00044001
0000A9 00				618=	DC X'00'	00045001
	000AA			619=EIGHT	EQU *-FSAREA CONST FOR REDUCING RAS	00046001
0000AA 0008				620=	DC H'8'	00047001
				621=*		00048001
0000AC				622=	DS 0F	00049001
	000AC			623=ADSTAB	EQU *-FSAREA ADDR OF DSTABLE	00050001
0000AC				624=	DS A IN THE OBJECT PROGRAM	00051001
	000B0			625=ANOTTAB	EQU *-FSAREA ADDR OF NOTE TABLE	00052001
0000B0				626=	DS A (INSERTED BY THE OPEN ROUTINE)	00053001
				627=*		00054001
	000B4			628=IHIFSAST	EQU *	00055001
	000B4			629=PGOPSW	EQU *-FSAREA PROGRAM CHECK OLD PSW	00056001
0000B4				630=	DS 2F	00057001
	000BC			631=FSAPICA	EQU *-FSAREA OLD PICA ADDR	00058001
0000BC 00000000				632=	DC F'0'	00059001
	000C0			633=SCRCS	EQU *-FSAREA SEMICOLON NUMBER	00060001
0000C0				634=	DS H	00061001
	000C2			635=DTSW	EQU *-FSAREA OPTION SWITCHES	00062001
	000C2			636=OPTSW	EQU DTSW	00063001
0000C2 00				637=	DC X'00'	00064001
	000C3			638=FSAERCOD	EQU *-FSAREA DUMP-80, TRACE-40, SHORT-20	00065001
0000C3				639=	DS C ERROR CODE FOR ERROR ROUTINE	00066001
				640=*		00067001
				641=*	RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				642=*		00069001
0000C4				643=	DS 0F	00070001
	000C4			644=IHIFSARS	EQU *	00071001
	000C4			645=RASSTART	EQU *-FSAREA ADDR OF FIRST ENTRY IN RAS-8	00072001
0000C4				646=	DS F	00073001
	000C8			647=RASPT	EQU *-FSAREA RAS POINTER FROM TOP	00074001
0000C8				648=	DS F	00075001
	000CC			649=RASEND	EQU *-FSAREA ADDR OF LAST ENTRY IN RAS+8	00076001
0000CC				650=	DS F	00077001
	000D0			651=RASPB	EQU *-FSAREA RAS POINTER FROM BOTTOM	00078001
0000D0				652=	DS F	00079001
				653=*		00080001
				654=*	LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				655=*		00082001
0000D4				656=BRLIST	DS 0F	00083001
	000D4			657=CAP1	EQU *-FSAREA FIRST PART CAPS	00084001
0000D4 4700 0000		00000		658=	NOP 0	00085001
	000D8			659=CAP2	EQU *-FSAREA SECOND PART CAPS	00086001
0000D8 4700 0000		00000		660=	NOP 0	00087001
	000DC			661=PROLOGP	EQU *-FSAREA PROLOGUE FORMAL PARAMETER ENTRY	00088001
	000DC			662=PROLOGFP	EQU PROLOGP	00089001
0000DC 4700 0000		00000		663=	NOP 0	00090001
	000E0			664=PROLOG	EQU *-FSAREA PROLOGUE PROGRAM USUAL ENTRY	00091001
0000E0 4700 0000		00000		665=	NOP 0	00092001
	000E4			666=RETPROG	EQU *-FSAREA DISPLACEMENT RETURN PROGRAM	00093001
0000E4 4700 0000		00000		667=	NOP 0	00094001
	000E8			668=EPILOGP	EQU *-FSAREA EPILOGUE PROGRAM,PROCEDURE ENTRY	00095001
0000E8 4700 0000		00000		669=	NOP 0	00096001
	000EC			670=EPILOGB	EQU *-FSAREA EPILOGUE PROGRAM,BETA-BLOCK ENTRY	00097001

Active USINGs: FSAAREA,R12 IHIIDECM+X'CC',R3 DSTABLE,R5

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000EC	4700 0000		00000	671=	NOP	0	00098001
		000F0		672=EPILPR3	EQU	*-FSAREA	00099001
0000F0	4700 0000		00000	673=	NOP	0	00100001
		000F4		674=CSWE1	EQU	*-FSAREA	00101001
0000F4	4700 0000		00000	675=	NOP	0	00102001
		000F8		676=CSWE2	EQU	*-FSAREA	00103001
0000F8	4700 0000		00000	677=	NOP	0	00104001
		000FC		678=LOADPP	EQU	*-FSAREA	00105001
0000FC	4700 0000		00000	679=	NOP	0	00106001
		00100		680=TRACE	EQU	*-FSAREA	00107001
000100	D200 0000 0000	00000	00000	681=	MVC	0(0),0	00108001
000106	4700 0000		00000	682=	NOP	0	00109001
00010A	4700 0000		00000	683=	NOP	0	00110001
		0010E		684=TERMNTE	EQU	*-FSAREA	00111001
00010E	4700 0000		00000	685=	NOP	0	00112001
		00112		686=BCR	EQU	*-FSAREA	00113001
000112	0700			687=	BCR	0,0	00114001
		00114		688=GETMSTO	EQU	*-FSAREA	00115001
000114	4700 0000		00000	689=	NOP	0	00116001
				690=*			00117001
		00118		691=VALUCALL	EQU	*-FSAREA	00118001
000118	4700 0000		00000	692=	NOP	0	00119001
		0011C		693=IORLST	EQU	*-FSAREA	00120001
00011C	4700 0000		00000	694=	NOP	0	00121001
				695=*			00122001
		001CC		696=FSAERR	EQU	X'1CC'	00123001
				697=*			00124001
				698=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				699=*			00126001
		0020C		700=OUTOFB	EQU	FSAERR+4*16	00127001
00218				701=NUMBIND	EQU	FSAERR+4*19	00128001
00208				702=ARRAYBD	EQU	FSAERR+4*15	00129001
0026C				703=ERROR40	EQU	FSAERR+4*40	00130001
00224				704=OERR22	EQU	FSAERR+4*22	00131001
00210				705=ENDLESL	EQU	FSAERR+4*17	00132001
00220				706=OERR21	EQU	FSAERR+4*21	00133001
				707=*			00134001
				708 *			00515001
				709 *		REGISTER EQUATES	00516001
				710 *			00517001
				711		IEZREGS	00518001
		00000		712+R0	EQU	0	01-IEZRE
00001				713+R1	EQU	1	01-IEZRE
00002				714+R2	EQU	2	01-IEZRE
00003				715+R3	EQU	3	01-IEZRE
00004				716+R4	EQU	4	01-IEZRE
00005				717+R5	EQU	5	01-IEZRE
00006				718+R6	EQU	6	01-IEZRE
00007				719+R7	EQU	7	01-IEZRE
00008				720+R8	EQU	8	01-IEZRE
00009				721+R9	EQU	9	01-IEZRE
0000A				722+R10	EQU	10	01-IEZRE
0000B				723+R11	EQU	11	01-IEZRE
0000C				724+R12	EQU	12	01-IEZRE
0000D				725+R13	EQU	13	01-IEZRE
0000E				726+R14	EQU	14	01-IEZRE
0000F				727+R15	EQU	15	01-IEZRE
				728 *			00519001
				729		END	00520001

IDE	Symbol Cross Reference												PAGE	10
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21		
=H'1'	2	000006D0	00000001	H	H		526	162						
ACNVIRD	1	00000120		U			488	370						
API	4	0000052C	00000001	A	A		494	314M 325						
APOSTR	4	000002D4	00000001	I			304	211B						
APOSTRA	4	000002E4	00000001	I			308	305B						
APOSTR1	4	000002FA	00000001	I			313	307B						
BLANK	4	0000019C	00000001	I			213	206B 218B						
BRNST	1	0000009C		U			607	608						
BUFF	8	00000538	00000001	D	D		496	450M 451						
CI	1	00000000		U			87	458						
COMMON	4	000000CC	00000001	I			154	106 108U 126 128U 130B 146 148U 150B						
DECPT	4	00000298	00000001	I			287	210B						
DECPTA	6	000002B8	00000001	I			296	292B						
DECPT1	4	000002C6	00000001	I			299	288B						
DELIMIT	4	00000306	00000001	I			317	193B 226B 273B 279B 290B 309B						
DELIMITB	4	00000340	00000001	I			334	328B						
DELIMITC	4	00000332	00000001	I			329	336B						
DELIMITD	4	00000366	00000001	I			345	341B						
DELIMITE	4	00000398	00000001	I			359	355B						
DELIMITF	4	000003A0	00000001	I			361	357B						
DELIMITH	4	0000037E	00000001	I			351	348B						
DELIMIT1	4	0000031A	00000001	I			323	318B						
DELIMIT2	4	0000032A	00000001	I			327	321B 324B						
DELIMIT3	4	00000350	00000001	I			338	332B						
DIGIT	4	000001CE	00000001	I			228	208B						
DIGIT1	4	00000228	00000001	I			255	229B						
DIGIT2	4	00000202	00000001	I			243	231B						
DIGIT2A	4	00000212	00000001	I			248	244B						
DIGIT3	6	000001E8	00000001	I			236	233B 246B						
DIGIT3A	4	000001EE	00000001	I			237	234B						
DIGIT4	4	00000248	00000001	I			264	256B						
DIGIT5	6	0000023A	00000001	I			260	268B						
DMINT	10	0000057B	00000001	C	C		507	349						
DPI	4	00000530	00000001	A	A		495	301M 319						
DSF	2	0000001A	FFFFFFFF	H	H		540	159M 164 170 174 176 179M 198						
DSOPEN	4	00000102	00000001	I			170	165B						
DSOPENA	4	0000010E	00000001	I			174	171B						
DSTABLE	1	00000000	FFFFFFFF	J			529	83U 568						
DS0	1	00000080		U			544	164						
DS10	1	00000020		U			557	159						
DS2	1	00000020		U			546	170						
DS6	1	00000002		U			550	174 179						
DS7	1	00000001		U			551	176 198						
DTSW	1	000000C2		U			635	636						
ERROR2	2	00000506	00000001	I			472	161B 163B 178B						
ERROR3	2	0000050C	00000001	I			475	172B						
ERROR5	2	00000512	00000001	I			478	177B 199B						
ERROR6	2	00000518	00000001	I			481	259B						
EV	1	00000008		U			89	155						
F	1	00000563	00000001	X	X		503	187M 192 224 228 230 238 240M 245M 248M 249 252M 255						
								264M 267M 270 272 276 278 284M 287 289 291 298M 299M						
								304 306 308 312M 313M 317 320M 323 326M 338 340 383						
								390 412						
FCTVALST	1	00000090		U			603	606						
FIN	2	000004B4	00000001	I			447	385B 427B 445B						
FIN1	4	000004D0	00000001	I			454	449B						
FIN3	4	000004E6	00000001	I			460	364B 378B 380B 455B						
FKT	1	00000562	00000001	X	X		502	109M 129M 149M 363 454						
FPR0	1	00000000		U			67	382M 387M 399M 402M 410M 438M 442M 446M 450 452M 468 470						
FSAAREA	1	00000000	FFFFFFFFE	J			571	376U						
FSAERR	1	000001CC		U			696	473B 476B 479B 482B 700 701 702 703 704 705 706						
FSAREA	1	00000000	FFFFFFFFE	U			593	598 603 605 606 607 610 617 619 623 625 629 631						
								633 635 638 645 647 649 651 657 659 661 664 666						
								668 670 672 674 676 678 680 684 686 688 691 693						
IHIIDEAI	4	00000000	00000001	I			95	58 101U						
IHIIDEII	4	00000044	00000001	I			115	57 121U						
IHIIDEIR	4	00000088	00000001	I			135	56 141U						
IHIPTTAB	1	00000000	00000002	T			486	486						
IORLST	1	0000011C		U			693	154 166 194 329 457						
IPTAB	1	00000585	00000001	X	X		509	203						
K	1	00000018	FFFFFFFF	X	X		538	220						
KFPD1	8	00000540	00000001	D	D		497	387						
KF72	4	00000528	00000001	F	F		493	436 439						
KF9	4	00000524	00000001	F	F		492	403						
KH10	2	00000560	00000001	H	H		501	418						
LADDRA	4	000000DA	00000001	I			159	110B						
MASK	8	00000550	00000001	G	F		499	398M 399						
MB	21	00000566	00000001	X	X		506	182 183 184M 257 345 349 351 356M 359M 360M 361 393						
								395M 396M 397 405M 414M 415 416 420M 421 467M						
NX	1	0000000C		U			90	195 330						
OP	1	00000010		U			91	167						
OPTSW	1	000000C2		U			636	377 448						
OTHERS	4	000001C2	00000001	I			224	207B						
PACK	6	000004F4	00000001	I			467	353X						
PROLOGP	1	000000DC		U			661	662						
Q	1	00000019	FFFFFFFF	X	X		539	160						
R	4	00000004	FFFFFFFF	F	F		532	181 197 337M						
RE	4	00000008	FFFFFFFF	F	F		533	190 215 327 335						
REQOPEN	4	00000122	00000001	I			179	168B						
ROUND	8	00000558	00000001	X	X		500	451M 452						
R0	1	00000000		U			712	342M 361M 371 397M 398 411M 415M 418M 419 421M 422M 425M						
								426 469						
R1	1	00000001		U			713	158						
R10	1	0000000A		U			722	109 251M 300M 386M 392M 394M 403M 426M 431M 433M 434M 436						
								439M 442						
R11	1	0000000B		U			723	432M 443M 444M 446						
R12	1	0000000C		U			724	122M 124 125 142M 144 145 154 166 194 329 370 372						





Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)																			X390 3.1.04	2012/08/17	13.21
0(0)	99	119	139	342M	361M	368	371	374M	397M	398	411M	415M	418M	419	421M	422M	425M	426	464M	469		
1(1)	99	119	139	158	203M	368	374M	464M														
2(2)	99	119	139	202M	203M	205N	219M	220M	221	257M	258	345M	346	351M	352	362M	368	369M	374M	375M	379M	393M
	394	400	419M	422	447M	453M	456M	460N	464M													
3(3)	99	102M	104	105	106M	108U	112D	119	126M	128U	132D	139	146M	148U	368	374M	464M					
4(4)	99	119	139	181M	185M	189M	190	197M	203	214M	215	217	223M	236	243	260	265	280	283	301	314	319M
	325M	327	334M	335	337	368	374M	464M														
5(5)	83U	99	119	139	368	374M	464M															
6(6)	99	119	139	162	368	374M	464M															
7(7)	99	119	139	158M	368	370M	373B	374M	464M	468	469	470										
8(8)	99	119	139	182M	232	236	237M	300	346	352M	353	368	373M	374M	392	400	404M	464M				
9(9)	99	119	139	183M	232	258	260	261M	368	374M	464M											
10(A)	99	109	119	139	251M	300M	368	374M	386M	392M	394M	403M	426M	431M	433M	434M	436	439M	442N	464M		
11(B)	99	119	139	368	374M	432M	433M	443M	444M	446N	464M											
12(C)	99	119	122M	124	125	139	142M	144	145	154	166	194	329	368	370	372	374M	376U	377	448	457	464M
	472	473N	475	476N	478	479N	481	482N														
13(D)	99	102	103M	104	105	119	122	123M	124	125	139	142	143M	144	145	368	369	372M	374M	461M	464	472M
	475M	478M	481M																			
14(E)	99	119	139	156M	180M	196M	331M	368	371M	374M	459M	464M	465B									
15(F)	95B	99	101U	107D	115B	119	121U	127D	135B	139	141U	147D	154M	155M	156B	166M	167M	180B	194M	195M	196B	204M
	213M	221	329M	330M	331B	368	374M	428M	430M	430N	438	442	446	457M	458M	459B	464M					

IDE		Dsect Cross Reference					PAGE 13	
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17 13.21	
DSTABLE	00000024	FFFFFFFF	529	4	DSTABLE			
FSAAREA	00000120	FFFFFFFE	571		PRIMARY INPUT			

Con	Source	Members
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X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		DSTABLE	FSAREA
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
83		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001B	337	DSTABLE,R5			
101		USING	Ordinary	00000001	00000000	00001000	15	00688	106	IHIIDEAI,R15			
107		DROP					15			R15			
108		USING	Ordinary	00000001	000000CC	00001000	3	00496	110	COMMON,R3			
112		DROP					3			R3			
121		USING	Ordinary	00000001	00000044	00001000	15	00644	126	IHIIDEII,R15			
127		DROP					15			R15			
128		USING	Ordinary	00000001	000000CC	00001000	3	00496	130	COMMON,R3			
132		DROP					3			R3			
141		USING	Ordinary	00000001	00000088	00001000	15	00600	146	IHIIDEIR,R15			
147		DROP					15			R15			
148		USING	Ordinary	00000001	000000CC	00001000	3	00604	467	COMMON,R3			
376		USING	Ordinary	FFFFFFFFE	00000000	00001000	12			FSAAREA,R12			

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHIIDE PROCSTEP: X390

Primary input: lines 1 to 520 of SYSD.ALGOLFRT.ASM(IHIIDE)

SYSLIB library records read: 362

SYSUT1 work file size: 71621 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 41600 bytes

SYSLIN file records written: 36

TXA000I Return code 0, elapsed time 0.39 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIIIDECM 0006D2 6

**IHIIOR**

**LEVEL**

**V2.M01**



TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIOR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00154
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmnt	Source Statement	X390 3.1.04 2012/08/17 13.21
2	*					00002001
3	*				COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
4	*					00004001
5	*				THE CODE HAS BEEN UPDATED -	00005001
6	*					00006001
7	*				1. ALL HARDCODED LENGTH CALCULATIONS FOR GETMAINED	00007001
8	*				AREAS USED FOR DCB, DECB ETC ARE NOW CALCULATED	00008001
9	*				2. ALL REFERENCES TO VARIOUS DCB FIELDS UTILIZE THE	00009001
10	*				MAPPING SYMBOLS PROVIDED BY DCBD	00010001
11	*				3. ALL REFERENCES TO VARIOUS JFCB FIELDS UTILIZE THE	00011001
12	*				MAPPING SYMBOLS PROVIDED BY IEFJFCBN	00012001
13	*				4. THE DCBS FOR SYSIN, SYSPRINT AND ALGLIB01 ARE OPENED	00013001
14	*				WITH OPEN OPTIONS SUITABLE FOR JES2/3 DATASETS	00014001
15	*				THIS WILL PREVENT 013-BC ABENDS THAT OCCURRED WITH THE	00015001
16	*				PREVIOUS RELEASE	00016001
17	*				5. ALL NUMERIC BRANCH CONDITIONS ARE RATIONALIZED TO USE	00017001
18	*				STANDARD ASSEMBLER MNEMONICS	00018001
19	*				6. MINOR CODE AND COMMENT CHANGES FOR IMPROVED READABILITY	00019001
20	*					00020001
21	*				FUNCTION/OPERATION -	00021001
22	*				THIS MODULE CONTAINS A SET OF SERVICE ROUTINES USED BY	00022001
23	*				OTHER I/O MODULES AS SUBROUTINES	00023001
24	*				THEY PERFORM THE FOLLOWING -	00024001
25	*				OPEN DATASET	00025001
26	*				CHANGE TO NEXT RECORD	00026001
27	*				CLOSE DATASET	00027001
28	*				CLOSE ALL DATASETS	00028001
29	*				CLEAR NOTTAB	00029001
30	*				ENTRY NOTTAB	00030001
31	*				EVALUATE DATASET NUMBER	00031001
32	*				END OF DATA HANDLING	00032001
33	*				SYNCHRONOUS ERROR HANDLING	00033001
34	*				CONVERT REAL TO INTEGER.	00034001
35	*				MORE DETAIL BEFORE EACH ROUTINE	00035001
36	*					00036001
37	*				ENTRY POINTS -	00037001
38	*				IHIOROP	00038001
39	*				IHIORQ	00039001
40	*				IHIORN	00040001
41	*				IHIORCL	00041001
42	*				IHIORCP	00042001
43	*				IHIORCN	00043001
44	*				IHIOREN	00044001
45	*				IHIOREV	00045001
46	*				IHIORCI	00046001
47	*				IHIORED	00047001
48	*				IHIORER	00048001
49	*				ALL INVOKED BY BALR R14,R15	00049001
50	*				DIFFERENCE EXPLAINED BEFORE EACH ROUTINE	00050001
51	*					00051001
52	*				INPUT - SEE EACH ROUTINE	00052001
53	*					00053001
54	*				OUTPUT - SEE EACH ROUTINE	00054001
55	*					00055001
56	*				EXTERNAL ROUTINES - IHIGPR - CLOSE DATASET FOR PUT/GET	00056001
57	*					00057001
58	*				EXITS - NORMAL - ALL ROUTINES EXCEPT END OF DATA AND	00058001
59	*				SYNAD RELOAD REGISTERS AND BR 14	00059001
60	*				- ERROR - NO EXPLANATION	00060001
61	*				0 DATASET NUMBER OUT OF RANGE	00061001
62	*				1 REAL NUMBER TO BE CONVERTED OUT OF	00062001
63	*				INTEGER RANGE	00063001
64	*				2 INCOMPATIBLE ACTIONS ON SAME DATASET	00064001
65	*				3 INPUT BEYOND LAST OUTPUT	00065001
66	*				4 OVERFLOW OF NOTTAB	00066001
67	*				5 INPUT REQUEST BEYOND END OF DATASET	00067001
68	*				7 DATA SECTIONED AND NO CTRL CHARACTER	00068001
69	*				SPECIFIED	00069001
70	*				32 UNRECOVERABLE I/O ERROR	00070001
71	*				37 BLOCKSIZE NOT A MULTIPLE OF RECORD	00071001
72	*				LENGTH	00072001
73	*				41 DDCARD INCORRECT OR MISSING	00073001
74	*				- ACTION - BRANCH TO IHGFSA	00074001
75	*				LA 13,IHGFSA	00075001
76	*				B FSAERR+XX*4(13) XX ERROR NUMBER	00076001
77	*					00077001
78	*				TABLES/WORK AREAS -	00078001
79	*				NOTTAB, FOR STORING OF RECORD IDENTIFICATION USING WHEN	00079001
80	*				REPOSITIONING, IS CREATED DYNAMICALLY WHEN OPEN A DATASET	00080001
81	*				WITH UNBLOCKED RECORD FORMAT SIZE OF 1024 BYTES	00081001
82	*					00082001
83	*				ATTRIBUTES - SERIALY REUSABLE	00083001
84	*					00084001
85	*				NOTES -	00085001
86	*				THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A	00086001
87	*				SPECIAL INTERNAL REPRESENTATION OF THE EXTERNAL	00087001
88	*				CHARACTER SET	00088001
89	*					00089001
90	*				REGISTER USAGE	00090001
91	*					00091001
92	*				R5 -> RELEVANT ENTRY IN DSTAB	00092001
93	*				R6 DATASET NUMBER	00093001
94	*				R7 PROGRAM BASE REGISTER	00094001
95	*				R8 -> DCB AND DECB'S	00095001
96	*				R12 -> FSA	00096001
97	*				R13 -> SAVE AREA	00097001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				98 *		R14 -> RETURN	00098001
				99 *		R15 -> ROUTINE	00099001
				100 *			00100001
000000		00000	00D6A	101	IHIIORTN	CSECT	00101001
				102 *			00102001
				103	ENTRY	IHIIOROP	00103001
				104	ENTRY	IHIIOROP	00104001
				105	ENTRY	IHIIORNX	00105001
				106	ENTRY	IHIIORCL	00106001
				107	ENTRY	IHIIORCP	00107001
				108	ENTRY	IHIIORGP	00108001
				109	ENTRY	IHIIORCN	00109001
				110	ENTRY	IHIIOREN	00110001
				111	ENTRY	IHIIOREV	00111001
				112	ENTRY	IHIIORED	00112001
				113	ENTRY	IHIIORCI	00113001
				114	ENTRY	IHIIORER	00114001
				115 *			00115001
				116 *		DISPLACEMENT IN FSA	00116001
				117 *			00117001
		000AC		118	ADSTAB	EQU X'AC'	00118001
		000B0		119	ANOTTAB	EQU X'B0'	00119001
		000C2		120	OPTSW	EQU X'C2'	00120001
		001CC		121	FSAERR	EQU X'1CC'	00121001
				122 *			00122001
				123 *			00123001
				124 *			00124001
				125 *			00125001
				126 *		OPEN A DATASET	00126001
				127 *			00127001
				128 *			00128001
				129 *		FUNCTION/OPERATION -	00129001
				130 *		RESERVE STORAGE FOR AND COMPLETE A DCB AND TWO I/O BUFFERS	00130001
				131 *			00131001
				132 *		COMPLETE DSTAB FIELDS IN GENERATED OBJECT MODULE	00132001
				133 *			00133001
				134 *		STAB HAS AN ENTRY AND INDICATOR STATUS FOR EVERY DATASET	00134001
				135 *		USED IN THE PROGRAM	00135001
				136 *			00136001
				137 *		INPUT -	00137001
				138 *		IF DATASET SHOULD PERFORM ONLY INPUT OR OUTPUT BLOCKED	00138001
				139 *		RECORD FORMAT IS USED ELSE UNBLOCKED FORMAT - ACCESS	00139001
				140 *		METHOD BSAM.	00140001
				141 *		IN CASE OF INPUT TWO RECORDS OR BLOCKS READ TO I/O	00141001
				142 *		BUFFERS. BLOCKED RECORD FORMAT IS USED ONLY WHEN	00142001
				143 *		BLOCKING FACTOR > 1	00143001
				144 *			00144001
				145 *		OUTPUT - N/A	00145001
				146 *			00146001
				147 *		NOTES -	00147001
				148 *		ADDR OF THE DCB IS LOADED IN R8 AND KEPT THROUGH ALL	00148001
				149 *		I/O MODULES	00149001
				150 *			00150001
				151 *		ROUTINE IHIIOROP IS ENTERED FROM SYSACT 12	00151001
				152 *			00152001
				153	IHIIOROP	SAVE (14,12),, 'IHIIOROP LEVEL 2.1 &SYSDATE &SYSTIME'	00153001
000000	47F0 F026		00026	154+	IHIIOROP	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			155+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C9D6D9D6D8			156+	DC	CL32' IHIIOROP LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			157+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	158+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				159 *			00154001
00002A	184F			160	LR	R4,R15	00155001
		R:4	00000	161	USING	IHIIOROP, R4	00156001
00002C	4170 40E6		000E6	162	LA	R7, IHIIOROP	00157001
		R:7	000E6	163	USING	IHIIOROP, R7	00158001
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 158 in SYSD.ALGOLFRT.ASM(IHIIOR)							
000030	50D0 7C0E		00CF4	164	ST	R13,SAVAR+4	00159001
000034	41D0 7C0A		00CF0	165	LA	R13,SAVAR	00160001
		R:5	00000	166	USING	DSTABLE, R5	00161001
000038	4960 7C72		00D58	167	CH	R6,=H'1'	DSTABLE NUMBER 0 OR 1 ?
00003C	47D0 7034		0011A	168	BNH	OPEN00	YES, BRANCH TO IHIIOROP
000040	94FD 501A		0001A	169	NI	DSF,255-DS6	00164001
000044	9102 501B		0001B	170	TM	DSF+1,DS14	DATASET BEEN OPEN BEFORE ?
000048	4710 7034		0011A	171	BO	OPEN00	YES
				172 *			00166001
				173 *		OPEN DATASET FOR THE FIRST TIME	00167001
				174 *			00168001
				175 *		GETMAIN AREA FOR DCB, DECB AND JFCB	00169001
				176 *		EXAMINE THE DISP PARAMETER IN JFCB IF NEW OPEN THE	00170001
				177 *		DATASET FOR OUTIN ELSE FOR INOUT	00171001
				178 *			00172001
				179	GETMAIN	R,LV=DCBAREAL	00173001
				180+	OS/VS2	RELEASE 4 VERSION -- 10/21/75	00174001
00004C				181+	CNOP	0,4	01-GETMA
00004C	4510 4054		00054	182+	BAL	1,*+8	01-GETMA
000050	00000120			183+	DC	A(DCBAREAL)	01-GETMA
000054	5800 1000		00000	184+	L	0,0(0,1)	01-GETMA
000058	0A0A			185+	SVC	10	01-GETMA
				186 *			00175001
00005A	5010 5000		00000	187	ST	R1,ADCB	SAVE DCB ADDR IN DSTABLE
00005E	1881			188	LR	R8,R1	00176001
		R:8	00000	189	USING	IHADCB, R8	00177001
000060	D257 8000 7BA2 00000 00C88			190	MVC	0(DCBMODLN, R8),DCBMODEL	MOVE DCBMODEL INTO GETMAIN AREA
				191 *			00178001

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
				192 *	CONVERT BINARY DATASET NUMBER INTO CHARACTER TO	00181001
				193 *	MOVE INTO THE DDNAME	00182001
				194 *		00183001
000066	4E60 7C02		00CE8	195	CVD R6,DWORD	00184001
00006A	F311 7C02 7C08	00CE8	00CEE	196	UNPK D(WORD(2),DWORD+6(2))	00185001
000070	96F0 7C03	00CE9		197	OI D(WORD+1,X'F0')	00186001
000074	D201 802E 7C02	0002E	00CE8	198	MVC DCBDDNAM+6(2),DWORD	00187001
00007A	4130 8070		00070	199	LA R3,JFCB	00188001
00007E	BE37 7BFF		00CE5	200	STCM R3,B'0111',ADCBEXIT+5	00189001
				201 *		00190001
				202	RDJFCB ((R8))	00191001
000082	0700			203+	CNOP 0,4	02-OPEN
000084	4510 408C		0008C	204+	BAL 1,*+8	ALIGN LIST TO FULLWORD
000088	00000000			205+	DC A(0)	LOAD REG1 W/LIST ADDR.
00008C	5081 0000		00000	206+	ST R8,0(1,0)	OPT BYTE AND DCB ADDR.
000090	9280 1000		00000	207+	MVI 0(1),128	STORE INTO LIST
000094	0A40			208+	SVC 64	MOVE IN OPTION BYTE
				209 *		01-RDJFCB
000096	9120 80A4		000A4	210	TM JFCBTSMD,JFCSDS	ISSUE RDJFCB SVC
00009A	4780 40BE		000BE	211	BZ ROQA	00192001
				212 *		00193001
				213 *	SUBSYSTEM DATASET	00194001
				214 *		00195001
00009E	9180 80C7		000C7	215	TM JFCBIND2,JFCMOD	00196001
0000A2	4710 40B0		000B0	216	BO ROQB	00197001
0000A6	D201 802A 7C74	0002A	00D5A	217	MVC DCBMACRF,=AL1(DCBMRD,0)	NEW OR MOD DATASET ?
0000AC	47F0 40CA		000CA	218	B ROQD	YES, MUST BE SYSOUT
				219 *		NO POINT OPTION FOR SUBSYS DS
0000B0	D201 802A 7C76	0002A	00D5C	220	ROQB MVC DCBMACRF,=AL1(0,DCBMRWT)	00200001
0000B6	9602 501A		0001A	221	OI DSF,DS6	00201001
0000BA	47F0 40CA		000CA	222	B ROQD	00202001
				223 *		00203001
0000BE	9180 80C7		000C7	224	ROQA TM JFCBIND2,JFCMOD	00204001
0000C2	4780 40CA		000CA	225	BZ ROQD	00205001
0000C6	9602 501A		0001A	226	OI DSF,DS6	00206001
0000CA	4110 8070		00070	227	ROQD LA R1,JFCB	00207001
				228 *		00208001
				229 *	FREE UP THE JFCB AREA ON THE END OF DCBAREA AS ITS NO	00209001
				230 *	LONGER NEEDED	00210001
				231 *		00211001
				232	FREEMAIN R,LV=JFCB_LEN,A=(1)	00212001
				233+	OS/VS2 RELEASE 3 VERSION -- 10/25/74	00213001
0000CE	0700			234+	CNOP 0,4	00214001
0000D0	47F0 40D8		000D8	235+	B *+8	00215001
0000D4	000000B0			236+	DC A(JFCB_LEN)	01-FREEM
0000D8	5800 40D4		000D4	237+	L 0,*-4	01-FREEM
0000DC	4110 1000		00000	238+	LA 1,0(0,1)	01-FREEM
0000E0	0A0A			239+	SVC 10	01-FREEM
				240 *		00216001
0000E2	47F0 70EE		001D4	241	B OPEN20	00217001
				242 *		00218001
0000E6	47F0 F026		00026	243	IHIOROP SAVE (14,12),, 'IHIOROP LEVEL 2.1 &SYSDATE &SYSTIME'	00219001
0000EA	21			244+	IHIOROP B 38(0,15)	01-SAVE
0000EB	C9C8C9C9D6D9D6D7			245+	DC AL1(33)	01-SAVE
00010B	F1			246+	DC CL32 'IHIOROP LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
00010C	90EC D00C		0000C	247+	DC CL1 '1'	01-SAVE
				248+	STM 14,12,12(13)	01-SAVE
				249 *		00220001
000110	187F			250	LR R7,R15	00221001
000112	50D0 7C0E		00CF4	251	ST R13,SAVAR+4	00222001
000116	41D0 7C0A		00CF0	252	LA R13,SAVAR	00223001
00011A	4960 7C72		00D58	253	OPEN00 CH R6,=H'1'	00224001
00011E	4770 704E		00134	254	BNE OPEN01	00225001
				255 *		00226001
				256 *	DATASET NUMBER = 1	00227001
				257 *	IF DATASET HAS BEEN OPENED BEFORE (DS14=1)	00228001
				258 *	SET DS0 = 1 AND GO BACK. IF NOT OPEN THE DATASET	00229001
				259 *		00230001
000122	9102 501B		0001B	260	TM DSF+1,DS14	PREVIOUSLY OPENED ?
000126	4780 704E		00134	261	BZ OPEN01	NO, BRANCH
00012A	9680 501A		0001A	262	OI DSF,DS0	00232001
00012E	47F0 7280		00366	263	B OPEN51	00233001
				264 *		00234001
				265 *	GETMAIN FOR DCB AND DECB, NO JFCB	00235001
				266 *		00236001
				267	OPEN01 GETMAIN R,LV=DCBAREAL-JFCB_LEN	00237001
				268+	OS/VS2 RELEASE 4 VERSION -- 10/21/75	00238001
000132	0700			269+	CNOP 0,4	01-GETMA
000134	4510 7056		0013C	270+	OPEN01 BAL 1,*+8	01-GETMA
000138	00000070			271+	DC A(DCBAREAL-JFCB_LEN)	01-GETMA
00013C	5800 1000		00000	272+	L 0,0(0,1)	01-GETMA
000140	0A0A			273+	SVC 10	01-GETMA
				274 *		00239001
000142	5010 5000		00000	275	ST R1,ADCB	00240001
000146	1881			276	LR R8,R1	00241001
000148	D257 8000 7BA2	00000	00C88	277	MVC 0(DCBMODLN,R8),DCBMODEL	MOVE IN MODEL DCB
00014E	4960 7C72		00D58	278	CH R6,=H'1'	00242001
000152	4740 708C		00172	279	BL DSIN	00243001
000156	4780 70B0		00196	280	BE DSPRINT	00244001
				281 *		00245001
				282 *	CONVERT BINARY DSNUMBER TO CHAR	00246001
				283 *		00247001
00015A	4E60 7C02		00CE8	284	CVD R6,DWORD	00248001
00015E	F311 7C02 7C08	00CE8	00CEE	285	UNPK D(WORD(2),DWORD+6(2))	DATASET NUMBER TO DDNAME
000164	96F0 7C03	00CE9		286	OI D(WORD+1,X'F0')	EXTRACT LAST TWO DIGITS
000168	D201 802E 7C02	0002E	00CE8	287	MVC DCBDDNAM+6(2),DWORD	MOVE IN DCB DDNAME NUMBER
						00250001
						00251001
						00252001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00016E	47F0 70E8		001CE	288	B	OPEN2	00253001
				289 *			00254001
000172	D207 8028 7C62 00028	00D48		290	DSIN	MVC DCBDDNAM,=CL8'SYSIN '	00255001
000178	D201 8032 7C74 00032	00D5A		291	MVC	DCBMACR,=AL1(DCBMRD,0) NO POINT OPTION FOR SYSIN	00256001
				292 *			00257001
				293	OPEN	((R8),(INPUT)) INPUT ONLY FOR SYSIN	00258001
00017E	0700			294+	CNOP	0,4	ALIGN LIST TO FULLWORD 01-OPEN
000180	4510 70A2		00188	295+	BAL	1,*+8	LOAD REG1 W/LIST ADDR. 01-OPEN
000184	00000000			296+	DC	A(0)	OPT BYTE AND DCB ADDR. 01-OPEN
000188	5081 0000		00000	297+	ST	R8,0(1,0)	STORE INTO LIST 01-OPEN
00018C	9280 1000		00000	298+	MVI	0(1),128	MOVE IN OPTION BYTE 01-OPEN
000190	0A13			299+	SVC	19	ISSUE OPEN SVC 01-OPEN
				300 *			00259001
000192	47F0 7134		0021A	301	B	OPEN300	00260001
				302 *			00261001
				303 *	IF DS11 = 0	OPEN DATASET SYSPRINT	00262001
				304 *	IF DS11 = 1	OPEN DATASET ALGLDD01	00263001
				305 *			00264001
000196	9110 501B		0001B	306	DSPRINT	TM DSF+1,DS11	00265001
00019A	4710 70C6		001AC	307	BO	DSPR2	00266001
00019E	D201 802E 7C78 0002E	00D5E		308	MVC	DCBDDNAM+6(2),=CL2'01' LAST 2 CHARS OF DDNAME	00267001
0001A4	9602 501B		0001B	309	OI	DSF+1,DS14	00268001
0001A8	47F0 70CC		001B2	310	B	DSPR2A	00269001
				311 *			00270001
0001AC	D207 8028 7C6A 00028	00D50		312	DSPR2	MVC DCBDDNAM,=CL8'SYSPRINT'	00271001
0001B2	D201 8032 7C76 00032	00D5C		313	DSPR2A	MVC DCBMACR(2),=AL1(0,DCBMRWT) NO POINT OPT FOR SYSPRINT	00272001
				314 *			00273001
				315	OPEN	((R8),(OUTPUT)) OUTPUT ONLY FOR SUBSYS SYSOUT	00274001
0001B8				316+	CNOP	0,4	ALIGN LIST TO FULLWORD 01-OPEN
0001B8	4510 70DA		001C0	317+	BAL	1,*+8	LOAD REG1 W/LIST ADDR. 01-OPEN
0001BC	00000000			318+	DC	A(0)	OPT BYTE AND DCB ADDR. 01-OPEN
0001C0	5081 0000		00000	319+	ST	R8,0(1,0)	STORE INTO LIST 01-OPEN
0001C4	928F 1000		00000	320+	MVI	0(1),143	MOVE IN OPTION BYTE 01-OPEN
0001C8	0A13			321+	SVC	19	ISSUE OPEN SVC 01-OPEN
				322 *			00275001
0001CA	47F0 7134		0021A	323	B	OPEN300	00276001
				324 *		SET MACRF=(RP,WP)	00277001
0001CE	D201 8032 7C7A 00032	00D60		325	OPEN2	MVC DCBMACR,=AL1(DCBMRD+DCBMRPT1,DCBMRWT+DCBMRPT2)	00278001
0001D4	BF2F C0B0		000B0	326	OPEN20	ICM R2,B'1111',ANOTTAB(R12)	00279001
0001D8	4770 7118		001FE	327	BNZ	OPEN3	00280001
				328 *			00281001
				329	GETMAIN	R,LV=1024 GET AREA FOR NOTE TABLE	00282001
				330+*	OS/VS2	RELEASE 4 VERSION -- 10/21/75	01-GETMA
0001DC	4100 0400		00400	331+	LA	0,1024(0,0)	LOAD LENGTH 01-GETMA
0001E0	4510 70FE		001E4	332+	BAL	1,*+4	INDICATE GETMAIN 01-GETMA
0001E4	0A0A			333+	SVC	10	ISSUE GETMAIN SVC 01-GETMA
				334 *			00283001
0001E6	501C 00B0		000B0	335	ST	R1,ANOTTAB(R12)	00284001
0001EA	1821			336	LR	R2,R1	ANOTTAB TO R2 00285001
0001EC	1832			337	LR	R3,R2	ANOTTAB TO R3 00286001
0001EE	4130 3008		00008	338	LA	R3,8(R3)	00287001
0001F2	5030 2000		00000	339	ST	R3,0(R2)	STORE POINTER NXE IN NOTTAB 00288001
0001F6	4130 33F8		003F8	340	LA	R3,1016(R3)	00289001
0001FA	5030 2004		00004	341	ST	R3,4(R2)	STORE POINTER NEXEF IN NOTTAB 00290001
0001FE	9102 501A		0001A	342	OPEN3	TM DSF,DS6	OUTPUT POSSIBLE ? 00291001
000202	4710 7146		0022C	343	BO	OPEN30	YES 00292001
				344 *			00293001
				345	OPEN	((R8),(INOUT))	00294001
000206	0700			346+	CNOP	0,4	ALIGN LIST TO FULLWORD 01-OPEN
000208	4510 712A		00210	347+	BAL	1,*+8	LOAD REG1 W/LIST ADDR. 01-OPEN
00020C	00000000			348+	DC	A(0)	OPT BYTE AND DCB ADDR. 01-OPEN
000210	5081 0000		00000	349+	ST	R8,0(1,0)	STORE INTO LIST 01-OPEN
000214	9283 1000		00000	350+	MVI	0(1),131	MOVE IN OPTION BYTE 01-OPEN
000218	0A13			351+	SVC	19	ISSUE OPEN SVC 01-OPEN
				352 *			00295001
00021A	9110 8030		00030	353	OPEN300	TM DCBOFLGS,DCBOFOPN	OPEN SUCCESSFUL ? 00296001
00021E	4710 715C		00242	354	BO	OPEN355	YES, BRANCH 00297001
000222	94FD 501B		0001B	355	NI	DSF+1,255-DS14	NO, SET DS14 = 0 00298001
000226	18DC			356	LR	R13,R12	DDCARD INCORRECT OR MISSING 00299001
000228	47FC 0270		00270	357	B	FSAERR+41*4(R12)	00300001
				358 *			00301001
				359	OPEN30	OPEN ((R8),(OUTIN))	00302001
00022C				360+	CNOP	0,4	ALIGN LIST TO FULLWORD 01-OPEN
00022C	4510 714E		00234	361+	OPEN30	BAL 1,*+8	LOAD REG1 W/LIST ADDR. 01-OPEN
000230	00000000			362+	DC	A(0)	OPT BYTE AND DCB ADDR. 01-OPEN
000234	5081 0000		00000	363+	ST	R8,0(1,0)	STORE INTO LIST 01-OPEN
000238	9287 1000		00000	364+	MVI	0(1),135	MOVE IN OPTION BYTE 01-OPEN
00023C	0A13			365+	SVC	19	ISSUE OPEN SVC 01-OPEN
				366 *			00303001
00023E	47F0 7134		0021A	367	B	OPEN300	CONTINUE 00304001
				368 *			00305001
000242	9111 7C52		00D38	369	OPEN355	TM EXERFLAG,X'11'	ERROR IN DCBEXIT ? 00306001
000246	4780 71A6		0028C	370	BZ	OPEN301	00307001
				371 *			00308001
				372 *	CLOSE	DATASET AND FREEMAIN FOR DCB AND DECB ONLY	00309001
				373 *			00310001
				374	CLOSE	((R8),REREAD)	00311001
00024A	0700			375+	CNOP	0,4	ALIGN LIST TO FULLWORD 01-CLOSE
00024C	4510 716E		00254	376+	BAL	1,*+8	LOAD REG1 W/LIST ADDR. 01-CLOSE
000250	00000000			377+	DC	A(0)	OPTION AND DCB ADDRESS 01-CLOSE
000254	5081 0000		00000	378+	ST	R8,0(1,0)	STORE DCB ADDRESS 01-CLOSE
000258	9290 1000		00000	379+	MVI	0(1),144	MOVE IN OPTION BYTE 01-CLOSE
00025C	0A14			380+	SVC	20	ISSUE CLOSE SVC 01-CLOSE
				381 *			00312001
				382	FREEMAIN	R,LV=DCBAREAL-JFCB_LEN,A=ADCB	00313001
				383+*	OS/VS2	RELEASE 3 VERSION -- 10/25/74	01-FREEM

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00025E	0700			384+	CNOP	0,4	01-FREEM
000260	47F0 7182		00268	385+	B	*+8	01-FREEM
000264	00000070			386+	DC	A(DCBAREAL-JFCB_LEN)	BRANCH AROUND LENGTH
000268	5800 717E		00264	387+	L	0,*-4	LENGTH
00026C	5810 5000		00000	388+	L	1,ADCB	LOAD SP AND LV
000270	4110 1000		00000	389+	LA	1,0(0,1)	LOAD AREA ADDRESS
000274	0A0A			390+	SVC	10	CLEAR HI ORDER BYTE
				391 *			ISSUE FREEMAIN SVC
000276	18DC			392	LR	R13,R12	01-FREEM
000278	9101 7C52	00D38		393	TM	EXERFLAG,X'01'	00314001
00027C	9200 7C52	00D38		394	MVI	EXERFLAG,X'00'	00315001
000280	4780 71A2		00288	395	BZ	OPEN350	00316001
000284	47FC 01E8		001E8	396	B	FSAERR+7*4(R12)	00317001
				397 *			00318001
000288	47FC 0260		00260	398	OPEN350 B	FSAERR+37*4(R12)	00319001
				399 *			00320001
00028C	9680 501A	0001A		400	OPEN301	OI DSF,DS0	00321001
000290	4960 7C72		00D58	401	CH	R6,=H'1'	00322001
000294	47D0 71B6		0029C	402	BNH	OPEN301A	00323001
000298	9602 5023	00023		403	OI	BL+3,DS14	00324001
00029C	4800 5020		00020	404	OPEN301A LH	R0,BL	00325001
0002A0	1A00			405	AR	R0,R0	00326001
				406 *			00327001
				407	GETMAIN R,LV=(0)	GET AREA FOR TWO BUFFERS	00328001
				408+*	OS/VS2 RELEASE 4 VERSION -- 10/21/75		00329001
0002A2	4510 71C0		002A6	409+	BAL	1,*+4	00330001
0002A6	0A0A			410+	SVC	10	01-GETMA
				411 *			01-GETMA
0002A8	5010 5010		00010	412	ST	R1,BB	00331001
0002AC	1821			413	LR	R2,R1	00332001
0002AE	4A10 5020		00020	414	AH	R1,BL	00333001
0002B2	5010 500C		0000C	415	ST	R1,NBB	00334001
0002B6	9102 501A	0001A		416	TM	DSF,DS6	00335001
0002BA	4710 7262		00348	417	BO	OPEN4	00336001
0002BE	9608 501B	0001B		418	OPEN31	OI DSF+1,DSEOD	00337001
0002C2	4140 8058		00058	419	LA	R4,DECB	00338001
0002C6	5830 4008		00008	420	L	R3,8(,R4)	00339001
0002CA	1938			421	CR	R3,R8	00340001
0002CC	4770 71F8		002DE	422	BNE	OPEN311	00341001
				423 *			00342001
				424	CHECK	DECB	00343001
0002D0	4110 8058		00058	425+	LA	1,DECB	00344001
0002D4	58E0 1008		00008	426+	L	14,8(0,1)	02-IHBRD
0002D8	58F0 E034		00034	427+	L	15,52(0,14)	02-IHBRD
0002DC	05EF			428+	BALR	14,15	02-IHBRD
				429 *			02-IHBRD
				430	OPEN311	READ DECB,SF,(R8),(R2),MF=E	00345001
0002DE	4110 8058		00058	431+	OPEN311	LA 1,DECB	00346001
0002E2	9280 1005	00005		432+	MVI	5(1),X'80'	02-IHBRD
0002E6	5081 0008		00008	433+	ST	R8,8(1,0)	02-IHBRD
0002EA	5021 000C		0000C	434+	ST	R2,12(1,0)	02-IHBRD
0002EE	58F1 0008		00008	435+	L	15,8(1,0)	02-IHBRD
0002F2	58F0 F030		00030	436+	L	15,48(0,15)	02-IHBRD
0002F6	05EF			437+	BALR	14,15	02-IHBRD
				438 *			00347001
				439	CHECK	DECB	00348001
0002F8	4110 8058		00058	440+	LA	1,DECB	02-IHBRD
0002FC	58E0 1008		00008	441+	L	14,8(0,1)	02-IHBRD
000300	58F0 E034		00034	442+	L	15,52(0,14)	01-CHECK
000304	05EF			443+	BALR	14,15	01-CHECK
				444 *			01-CHECK
000306	94F7 501B	0001B		445	NI	DSF+1,255-DSEOD	00349001
00030A	4810 803E		0003E	446	LH	1,DCBBLKSI	00350001
00030E	5840 8044		00044	447	L	R4,DCBIOBA	00351001
000312	4B14 0016		00016	448	SH	1,22(R4)	00352001
000316	4010 5020		00020	449	STH	1,BL	00353001
				450 *			00354001
				451	NOTE	(R8)	00355001
00031A	1818			452+	LR	1,R8	00356001
00031C	58F0 1054		00054	453+	L	15,84(0,1)	02-IHBRD
000320	05EF			454+	BALR	14,15	01-NOTE
				455 *			01-NOTE
000322	5010 501C		0001C	456	ST	R1,NOTEADR	00357001
000326	5830 500C		0000C	457	OPEN41	L R3,NBB	00358001
				458 *			00359001
				459	READ	DECB,SF,(R8),(R3),MF=E	00360001
00032A	4110 8058		00058	460+	LA	1,DECB	00361001
00032E	9280 1005	00005		461+	MVI	5(1),X'80'	02-IHBRD
000332	5081 0008		00008	462+	ST	R8,8(1,0)	02-IHBRD
000336	5031 000C		0000C	463+	ST	R3,12(1,0)	02-IHBRD
00033A	58F1 0008		00008	464+	L	15,8(1,0)	02-IHBRD
00033E	58F0 F030		00030	465+	L	15,48(0,15)	02-IHBRD
000342	05EF			466+	BALR	14,15	02-IHBRD
				467 *			00362001
000344	47F0 7274		0035A	468	B	OPEN5	00363001
				469 *			00364001
000348	9140 501B	0001B		470	OPEN4	TM DSF+1,DS9	00365001
00034C	4780 7274		0035A	471	BZ	OPEN5	00366001
000350	D200 2000	7C82 00000	00D68	472	MVC	0(1,R2),=C'1'	00367001
000356	4120 2001		00001	473	LA	R2,1(,R2)	00368001
00035A	5020 5004		00004	474	OPEN5	ST R2,R	00369001
00035E	4A20 5016		00016	475	AH	R2,P	00370001
000362	5020 5008		00008	476	ST	R2,RE	00371001
000366	58D0 7C0E		00CF4	477	OPEN51	L R13,SAVAR+4	00372001
				478 *			00373001
				479	RETURN	(14,12)	00374001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00036A	98EC D00C		0000C	480+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
00036E	07FE			481+	BR	14	01-RETUR
				482 *			00375001
				483 *			00376001
				484 *		DCB OPEN EXIT ROUTINE	00377001
				485 *			00378001
				486 *			00379001
000370	9110 501B	0001B		487	IHIORDX TM	DSF+1,DS11	00380001
000374	4780 7332		00418	488	BZ	EXIT3	00381001
				489 *			00382001
				490 *		EXIT ROUTINE FOR PRINTING ERROR MESSAGE	00383001
				491 *			00384001
000378	D200 5019 7C83	00019	00D69	492	MVC	Q(1),=X'32'	RECORD IS SECTIONED Q=50
00037E	D201 5016 7C7C	00016	00D62	493	MVC	P(2),=X'005A'	RECORD LENGTH P=90
				494 *			00386001
				495	MVI	DCBRECFM,DCBRECF+DCBRECBR+DCBRECCA	INSERT RECORD FORMAT=FBA
000384	9294 8024	00024		496	OI	DSF+1,DS9	00388001
000388	9640 501B	0001B		497	LH	R4, P	00389001
00038C	4840 5016		00016	498	LA	R4,1(,R4)	00390001
000390	4140 4001		00001	499	STH	R4,DCBLRECL	P+1 TO LRECL
000394	4040 8052		00052	500 *			00391001
				501 *		EXAMINE DCB BLKSIZE	00392001
				502 *			00393001
000398	4830 803E		0003E	503	LH	R3,DCBBLKSI	00394001
00039C	1B22			504	SR	R2, R2	00395001
00039E	1D24			505	DR	R2, R4	00396001
0003A0	1233			506	LTR	R3, R3	00397001
0003A2	4780 72C4		003AA	507	BZ	EXITA	00398001
0003A6	4630 72D6		003BC	508	BCT	R3, EXITB	00399001
0003AA	4040 803E		0003E	509	STH	R4,DCBBLKSI	BLKSI < LRECL OR BLKSI = 0
0003AE	9640 501A	0001A		510	OI	DSF,DS1	00400001
0003B2	D201 5020 803E	00020	0003E	511	MVC	BL(2),DCBBLKSI	00401001
0003B8	47F0 73CC		004B2	512	B	RETEX	00402001
				513 *			00403001
0003BC	4133 0001		00001	514	LA	R3,1(R3)	00404001
0003C0	4C30 8052		00052	515	MH	R3,DCBLRECL	00405001
0003C4	4030 803E		0003E	516	STH	R3,DCBBLKSI	00406001
0003C8	94BF 501A	0001A		517	NI	DSF,255-DS1	00407001
0003CC	47F0 72CC		003B2	518	B	EXITC	00408001
				519 *			00409001
				520 *		ALGOL USER'S EXIT ROUTINE	00410001
				521 *			00411001
0003D0	91FF 8024	00024		522	EXIT0 TM	DCBRECFM,X'FF'	00412001
0003D4	4780 730A		003F0	523	BZ	EXIT1	RECFM PROVIDED ?
0003D8	9184 8024	00024		524	TM	DCBRECFM,DCBRECF+DCBRECCA	RECFM = 0
0003DC	4710 732A		00410	525	BO	EXIT4	RECFM = FBA OR FBA ?
0003E0	91FF 5019	00019		526	TM	Q,X'FF'	00413001
0003E4	4780 73CC		004B2	527	BZ	RETEX	RECORDS PER SECTION PROVIDED ?
0003E8	9601 7C52	00D38		528	OI	EXERFLAG,X'01'	NO, BRANCH
0003EC	47F0 73CC		004B2	529	B	RETEX	DATASET SPLIT INTO SECTIONS
				530 *			AND NO CTL CHARACTER ERROR NO 7
0003F0	9680 8024	00024		531	EXIT1 OI	DCBRECFM,DCBRECF	00420001
0003F4	9140 501A	0001A		532	TM	DSF,DS1	00421001
0003F8	4710 731A		00400	533	BO	EXIT12	00422001
0003FC	9610 8024	00024		534	OI	DCBRECFM,DCBRECBR	00423001
000400	9140 501B	0001B		535	EXIT12 TM	DSF+1,DS9	00424001
000404	4780 73CC		004B2	536	BZ	RETEX	00425001
000408	9604 8024	00024		537	OI	DCBRECFM,DCBRECCA	00426001
00040C	47F0 73CC		004B2	538	B	RETEX	00427001
				539 *			00428001
000410	9640 501B	0001B		540	EXIT4 OI	DSF+1,DS9	00429001
000414	47F0 73CC		004B2	541	B	RETEX	00430001
				542 *			00431001
				543 *		EXAMINE LRECL	00432001
				544 *			00433001
000418	9640 501A	0001A		545	EXIT3 OI	DSF,DS1	00434001
00041C	91FF 5019	00019		546	TM	Q,X'FF'	00435001
000420	4780 7342		00428	547	BZ	EXIT3A	00436001
000424	9640 501B		0001B	548	OI	DSF+1,DS9	00437001
000428	4840 8052		00052	549	EXIT3A LH	R4,DCBLRECL	00438001
00042C	1244			550	LTR	R4, R4	00439001
00042E	4780 736A		00450	551	BZ	EXIT2	00440001
000432	9140 501B	0001B		552	TM	DSF+1,DS9	00441001
000436	4710 735C	00442		553	BO	EXIT5	00442001
00043A	4040 5016	00016		554	STH	R4, P	00443001
00043E	47F0 738A		00470	555	B	EXIT6	00444001
				556 *			00445001
000442	0640			557	EXIT5 BCTR	R4, 0	00446001
000444	4040 5016		00016	558	STH	R4, P	00447001
000448	4140 4001		00001	559	LA	R4,1(,R4)	00448001
00044C	47F0 738A		00470	560	B	EXIT6	00449001
				561 *			00450001
000450	9140 501B	0001B		562	EXIT2 TM	DSF+1,DS9	00451001
000454	4710 737E		00464	563	BO	EXIT7	00452001
000458	4840 5016		00016	564	LH	R4, P	00453001
00045C	4040 8052	00052		565	STH	R4,DCBLRECL	00454001
000460	47F0 738A		00470	566	B	EXIT6	00455001
				567 *			00456001
000464	4840 5016		00016	568	EXIT7 LH	R4, P	00457001
000468	4140 4001		00001	569	LA	R4,1(,R4)	00458001
00046C	4040 8052		00052	570	STH	R4,DCBLRECL	00459001
				571 *			00460001
				572 *		EXAMINE BLKSIZE	00461001
				573 *			00462001
000470	4820 803E		0003E	574	EXIT6 LH	R2,DCBBLKSI	00463001
000474	1222			575	LTR	R2, R2	00464001
						BLKSIZE = 0 ?	00465001
							00466001
							00467001
							00468001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000476	4780 73C0		004A6	576	BZ	EXIT8	YES, BRANCH 00469001
00047A	4940 803E		0003E	577	CH	R4, DCBBLKSI	DCBBLKSI = DCBLRECL ? 00470001
00047E	4780 73B6		0049C	578	BE	EXIT61A	YES, BRANCH 00471001
000482	4830 803E		0003E	579	LH	R3, DCBBLKSI	00472001
000486	1822			580	SR	R2, R2	00473001
000488	1D24			581	DR	R2, R4	00474001
00048A	1222			582	LTR	R2, R2	00475001
00048C	4780 73B2		00498	583	BZ	EXIT61	00476001
000490	9610 7C52	00D38		584	OI	EXERFLAG, X'10'	BLOCKSIZE NOT A MULTIPLE OF 00477001
000494	47F0 73CC		004B2	585	B	RETEX	LOGICAL RECORD LENGTH ERR NO.37 00478001
				586	*		00479001
000498	94B8 501A	0001A		587	EXIT61	NI DSF, 255-DS1	0 TO DS1 UNBLOCKED FORMAT NESC 00480001
00049C	D201 5020	803E 00020	0003E	588	EXIT61A	MVC BL(2), DCBBLKSI	BLKSI TO BL 00481001
0004A2	47F0 72EA		003D0	589	B	EXIT0	00482001
				590	*		00483001
0004A6	4040 803E		0003E	591	EXIT8	STH R4, DCBBLKSI	00484001
0004AA	4040 5020		00020	592	STH	R4, BL	00485001
0004AE	47F0 72EA		003D0	593	B	EXIT0	00486001
				594	*		00487001
				595	RETEX	RETURN	00488001
0004B2				596+	RETEX	DS 0H	01-RETUR
0004B2	07FE			597+	BR	14	01-RETUR
				598	*		00489001
				599	*		00490001
				600	*	NEXTREC - CHANGE TO NEXT RECORD	00491001
				601	*		00492001
				602	*		00493001
				603	*	INPUT -	00494001
				604	*	IN CASE OF AN IN-MODULE CALLING NEXTREC, LAST I/O	00495001
				605	*	OPERATION IS CHECKED FOR COMPLETION AND ONE BLOCK OR	00496001
				606	*	RECORD IS READ TO THE OTHER I/O BUFFER	00497001
				607	*		00498001
				608	*	OUTPUT -	00499001
				609	*	IN CASE OF AN OUT-MODULE CALLING NEXTREC, LAST I/O	00500001
				610	*	OPERATION IS CHECKED FOR COMPLETION AND ONE BLOCK OR	00501001
				611	*	RECORD IS WRITTEN TO THE DATASET	00502001
				612	*		00503001
				613	*		00504001
				614	IHIIORNX	SAVE (14,12),, 'IHIIORNX LEVEL 2.1 &SYSDATE &SYSTIME'	00505001
0004B4	47F0 F026		00026	615+	IHIIORNX	B 38(0,15)	01-SAVE
0004B8	21			616+	DC	AL1(33)	LENGTH OF IDENTIFIER 01-SAVE
0004B9	C9C8C9C9D6D9D5E7			617+	DC	CL32'IHIIORNX LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
0004D9	F1			618+	DC	CL1'1'	IDENTIFIER 01-SAVE
0004DA	90EC D00C		0000C	619+	STM	14,12,12(13)	SAVE REGISTERS 01-SAVE
				620	*		00506001
0004DE	187F			621	LR	R7, R15	00507001
		R:7 004B4		622	USING	IHIIORNX, R7	00508001
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 508 in SYSD.ALGOLFRT.ASM(IHIIOR)							
0004E0	50D0 7840		00CF4	623	ST	R13, SAVAR+4	00509001
0004E4	41D0 783C		00CF0	624	LA	R13, SAVAR	00510001
0004E8	5880 5000		00000	625	L	R8, ADCB	00511001
				626	*		00512001
				627	*	FLOW CHAR PROGRAM BEGIN	00513001
				628	*		00514001
0004EC	9122 501A		0001A	629	TM	DSF, DS2+DS6	00515001
0004F0	4780 7188		0063C	630	BZ	NXIN1	00516001
0004F4	4710 706A		0051E	631	BO	NXUT1	00517001
				632	*		00518001
				633	*	DS6=0 DS2=1 CURRENT BLOCK WAS READ AND SHOULD BE WRITTEN	00519001
				634	*	BACK	00520001
				635	*		00521001
				636		CHECK DECB	00522001
0004F8	4110 8058		00058	637+	LA	1, DECB	02-IHBIN
0004FC	58E0 1008		00008	638+	L	14, 8(0,1)	PICK UP DCB ADDR 01-CHECK
000500	58F0 E034		00034	639+	L	15, 52(0,14)	LOAD CHECK ROUTINE ADDR 01-CHECK
000504	05EF			640+	BALR	14, 15	LINK TO CHECK ROUTINE 01-CHECK
				641	*		00523001
000506	D201 5020	803E 00020	0003E	642	MVC	BL(2), DCBBLKSI	00524001
00050C	1818			643	LR	R1, R8	00525001
				644	*		00526001
				645		POINT (1), NOTEADR	00527001
00050E	4100 501C		0001C	646+	LA	0, NOTEADR	LOAD PARAMETER REG 0 02-IHBIN
000512	58F0 1054		00054	647+	L	15, 84(0,1)	LOAD POINT RTN ADDR 01-POINT
000516	45EF 0004		00004	648+	BAL	14, 4(15,0)	LINK TO POINT ROUTINE 01-POINT
				649	*		00528001
00051A	9602 501A		0001A	650	OI	DSF, DS6	00529001
				651	*		00530001
				652	*	DS6=1 DS2=1 WRITE BLOCK IF LAST RECORD	00531001
				653	*		00532001
00051E	9140 501A		0001A	654	NXUT1	TM DSF, DS1	00533001
000522	4780 7154		00608	655	BZ	NXUT2	00534001
				656	*		00535001
				657	*	CHANGE BUFFERS	00536001
				658	*		00537001
000526	5820 5010		00010	659	NXUT3	L R2, BB	00538001
00052A	5840 500C		0000C	660	L	R4, NBB	00539001
00052E	5040 5010		00010	661	ST	R4, BB	00540001
000532	5020 500C		0000C	662	ST	R2, NBB	00541001
000536	5040 5004		00004	663	ST	R4, R	00542001
00053A	4A40 5016		00016	664	AH	R4, P	00543001
00053E	5040 5008		00008	665	ST	R4, RE	00544001
000542	94EF 501A		0001A	666	NI	DSF, 255-DS3	00545001
000546	5840 8060		00060	667	NXUT4	L R4, DECB+8	00546001
00054A	1948			668	CR	R4, R8	00547001
00054C	4770 70AA		0055E	669	BNE	NXUT41	00548001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				670 *			00549001
				671	CHECK	DECB	00550001
000550	4110 8058		00058	672+	LA	1,DECB	02-IHBBIN
000554	58E0 1008		00008	673+	L	14,8(0,1)	01-CHECK
000558	58F0 E034		00034	674+	L	15,52(0,14)	01-CHECK
00055C	05EF			675+	BALR	14,15	01-CHECK
				676 *			00551001
				677 NXUT41	WRITE	DECB,SF,(R8),(R2),MF=E	00552001
00055E	4110 8058		00058	678+NXUT41	LA	1,DECB	02-IHBRD
000562	9220 1005	00005		679+	MVI	5(1),X'20'	02-IHBRD
000566	5081 0008		00008	680+	ST	R8,8(1,0)	02-IHBRD
00056A	5021 000C		0000C	681+	ST	R2,12(1,0)	02-IHBRD
00056E	58F1 0008		00008	682+	L	15,8(1,0)	02-IHBRD
000572	58F0 F030		00030	683+	L	15,48(0,15)	02-IHBRD
000576	05EF			684+	BALR	14,15	02-IHBRD
				685 *			00553001
				686 *	CLEAR	NOTTAB IF BACKWARD REPOSITIONING HAS OCCURED	00554001
				687 *			00555001
000578	9104 501A	0001A		688 NXUT5	TM	DSF,DS5	00556001
00057C	4780 70D6		0058A	689	BZ	NXUT6	00557001
000580	58F0 7888		00D3C	690	L	R15,VIORCN	00558001
000584	05EF			691	BALR	R14,R15	00559001
000586	94FB 501A	0001A		692	NI	DSF,255-DS5	00560001
				693 *			00561001
				694 *	INSERT	NOTTAB ENTRY IF REQUESTED	00562001
				695 *			00563001
00058A	9108 501A	0001A		696 NXUT6	TM	DSF,DS4	00564001
00058E	4780 7102		005B6	697	BZ	NXUT7	00565001
				698 *			00566001
				699	CHECK	DECB	00567001
000592	4110 8058		00058	700+	LA	1,DECB	02-IHBBIN
000596	58E0 1008		00008	701+	L	14,8(0,1)	01-CHECK
00059A	58F0 E034		00034	702+	L	15,52(0,14)	01-CHECK
00059E	05EF			703+	BALR	14,15	01-CHECK
				704 *			00568001
				705	NOTE	(R8)	00569001
0005A0	1818			706+	LR	1,R8	02-IHBBIN
0005A2	58F0 1054		00054	707+	L	15,84(0,1)	01-NOTE
0005A6	05EF			708+	BALR	14,15	01-NOTE
				709 *			00570001
0005A8	5010 501C		0001C	710	ST	R1,NOTEADR	00571001
0005AC	58F0 788C		00D40	711	L	R15,VIOREN	00572001
0005B0	05EF			712	BALR	R14,R15	00573001
0005B2	94F7 501A	0001A		713	NI	DSF,255-DS4	00574001
				714 *			00575001
				715 *	INSERT	CONTROL CHARACTER IF SECTIONED	00576001
				716 *			00577001
0005B6	9140 501B	0001B		717 NXUT7	TM	DSF+1,DS9	00578001
0005BA	4780 713A		005EE	718	BZ	NXRET	00579001
0005BE	5840 5004		00004	719	L	R4,R	00580001
0005C2	D500 5015	5019 00015	00019	720	CLC	S+1(1),Q	00581001
0005C8	4740 7126		005DA	721	BL	NXUT8	00582001
0005CC	1B22			722	SR	R2,R2	00583001
0005CE	4020 5014		00014	723	STH	R2,S	00584001
0005D2	92F1 4000		00000	724	MVI	0(R4),C'1'	00585001
0005D6	47F0 712A		005DE	725	B	NXUT9	00586001
				726 *			00587001
0005DA	9240 4000	00000		727 NXUT8	MVI	0(R4),C'1'	00588001
0005DE	4144 0001		00001	728 NXUT9	LA	R4,1(R4)	00589001
0005E2	5040 5004		00004	729	ST	R4,R	00590001
0005E6	4A40 5016		00016	730	AH	R4,P	00591001
0005EA	5040 5008		00008	731	ST	R4,RE	00592001
				732 *			00593001
				733 *	INCREASE	RECORD POINTER AND RETURN	00594001
				734 *			00595001
0005EE	5820 5014		00014	735 NXRET	L	R2,S	00596001
0005F2	8820 0010		00010	736	SRL	R2,16	00597001
0005F6	4122 0001		00001	737	LA	R2,1(R2)	00598001
0005FA	4020 5014		00014	738	STH	R2,S	00599001
0005FE	58D0 7840		00CF4	739	L	R13,SAVAR+4	00600001
				740 *			00601001
				741	RETURN	(14,12)	00602001
000602	98EC D00C		0000C	742+	LM	14,12,12(13)	01-RETUR
000606	07FE			743+	BR	14	01-RETUR
				744 *			00603001
				745 *	BLOCKED	FORMAT	00604001
				746 *	CHECK	IF LAST RECORD IND IF NOTTAB ENTRY REQUIRED	00605001
				747 *			00606001
000608	5820 5010		00010	748 NXUT2	L	R2,BB	00607001
00060C	4A20 5020		00020	749	AH	R2,BL	00608001
000610	5920 5008		00008	750	C	R2,RE	00609001
000614	4780 7072		00526	751	BE	NXUT3	00610001
000618	5840 5008		00008	752	L	R4,RE	00611001
00061C	5040 5004		00004	753	ST	R4,R	00612001
000620	4A40 5016		00016	754	AH	R4,P	00613001
000624	5040 5008		00008	755	ST	R4,RE	00614001
000628	9108 501A	0001A		756	TM	DSF,DS4	00615001
00062C	4780 7102		005B6	757	BZ	NXUT7	00616001
000630	94FD 501A	0001A		758	NI	DSF,255-DS6	00617001
000634	5820 5010		00010	759	L	R2,BB	00618001
000638	47F0 7092		00546	760	B	NXUT4	00619001
				761 *			00620001
				762 *	DS6=0	DS2=0 CHECK IF NOTTAB ENTRY REQUIRED	00621001
				763 *	STORE	ADDR OF LAST BLOCK IN NOTEADR AND READ NEXT	00622001
				764 *	BLOCK		00623001
				765 *			00624001

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00063C	9108 501A	0001A		766	NXIN1	TM DSF,DS4	00625001
000640	4780 719E		00652	767		BZ NXIN2	00626001
000644	5810 501C		0001C	768		L R1,NOTEADR	00627001
000648	58F0 788C		00D40	769		L R15,VIOREN	00628001
00064C	05EF			770		BALR R14,R15	00629001
00064E	94F7 501A	0001A		771		NI DSF,255-DS4	00630001
000652	9140 501A	0001A		772	NXIN2	TM DSF,DS1	00631001
000656	4780 7224		006D8	773		BZ NXIN5	00632001
				774	*		00633001
				775	NXIN3	CHECK DECB	00634001
00065A	4110 8058		00058	776+NXIN3	LA 1,DECB	LOAD PARAMETER REG 1	02-IHBN
00065E	58E0 1008		00008	777+	L 14,8(0,1)	PICK UP DCB ADDR	01-CHECK
000662	58F0 E034		00034	778+	L 15,52(0,14)	LOAD CHECK ROUTINE ADDR	01-CHECK
000666	05EF			779+	BALR 14,15	LINK TO CHECK ROUTINE	01-CHECK
				780	*		00635001
000668	9101 501A	0001A		781		TM DSF,DS7	00636001
00066C	4780 71CA		0067E	782		BZ NXIN7	00637001
000670	9602 501A	0001A		783		OI DSF,DS6	00638001
000674	D201 5020	803E 00020	0003E	784		MVC BL(2),DCBBLKSI	00639001
00067A	47F0 7204		006B8	785		B NXIN6	00640001
				786	*		00641001
00067E	4810 803E		0003E	787	NXIN7	LH 1,DCBBLKSI	00642001
000682	5840 8044		00044	788		L R4,DCBIOBA	00643001
000686	4814 0016		00016	789		SH 1,22(R4)	00644001
00068A	4010 5020		00020	790		STH 1,BL	00645001
				791	*		00646001
				792		NOTE (R8)	00647001
00068E	1818			793+		LR 1,R8	02-IHBN
000690	58F0 1054		00054	794+		L 15,84(0,1)	01-NOTE
000694	05EF			795+		BALR 14,15	01-NOTE
				796	*		00648001
000696	5010 501C		0001C	797		ST R1,NOTEADR	00649001
00069A	5820 5010		00010	798		L R2,BB	00650001
				799	*		00651001
				800		READ DECB,SF,(R8),(R2),MF=E	00652001
00069E	4110 8058		00058	801+		LA 1,DECB	02-IHBRD
0006A2	9280 1005	00005		802+		MVI 5(1),X'80'	02-IHBRD
0006A6	5081 0008		00008	803+		ST R8,8(1,0)	02-IHBRD
0006AA	5021 000C		0000C	804+		ST R2,12(1,0)	02-IHBRD
0006AE	58F1 0008		00008	805+		L 15,8(1,0)	02-IHBRD
0006B2	58F0 F030		00030	806+		L 15,48(0,15)	02-IHBRD
0006B6	05EF			807+		BALR 14,15	02-IHBRD
				808	*		00653001
				809	*	CHANGE BUFFERS	00654001
				810	*		00655001
0006B8	5820 5010		00010	811	NXIN6	L R2,BB	00656001
0006BC	5840 500C		0000C	812		L R4,NBB	00657001
0006C0	5040 5010		00010	813		ST R4,BB	00658001
0006C4	5040 5004		00004	814		ST R4,R	00659001
0006C8	4A40 5016		00016	815		AH R4,P	00660001
0006CC	5040 5008		00008	816		ST R4,RE	00661001
0006D0	5020 500C		0000C	817		ST R2,NBB	00662001
0006D4	47F0 713A		005EE	818		B NXRET	00663001
				819	*		00664001
				820	*	BLOCKED FORMAT	00665001
				821	*		00666001
0006D8	5820 5010		00010	822	NXIN5	L R2,BB	00667001
0006DC	4A20 5020		00020	823		AH R2,BL	00668001
0006E0	5920 5008		00008	824		C R2,RE	00669001
0006E4	4780 71A6		0065A	825		BE NXIN3	00670001
0006E8	5840 5008		00008	826		L R4,RE	00671001
0006EC	5040 5004		00004	827		ST R4,R	00672001
0006F0	4A40 5016		00016	828		AH R4,P	00673001
0006F4	5040 5008		00008	829		ST R4,RE	00674001
0006F8	47F0 713A		005EE	830		B NXRET	00675001
				831	*		00676001
				832	*		00677001
				833	*	CLOSE DATASET	00678001
				834	*		00679001
				835	*		00680001
				836	*	FUNCTION/OPERATION -	00681001
				837	*	CLOSE A DATASET, RELEASE STORAGE FOR I/O BUFFERS AND DCB	00682001
				838	*	CALL FOR ROUTINE CLEAR NOTTAB	00683001
				839	*		00684001
				840	*	OUTPUT -	00685001
				841	*	IN CASE OF OUTPUT WRITE LAST BLOCK TO DATASET	00686001
				842	*		00687001
				843	IHIORCL	SAVE (14,12),,'IHIORCL LEVEL 2.1 &SYSDATE &SYSTIME'	00688001
0006FC	47F0 F026	00026		844+IHIORCL	B 38(0,15)	BRANCH AROUND ID	01-SAVE
000700	21			845+	DC AL1(33)	LENGTH OF IDENTIFIER	01-SAVE
000701	C9C8C9C9D6D9C3D3			846+	DC CL32'IHIORCL LEVEL 2.1 08/17/12 13.2'	IDENTIFIER	01-SAVE
000721	F1			847+	DC CL1'1'	IDENTIFIER	01-SAVE
000722	90EC D00C	0000C		848+	STM 14,12,12(13)	SAVE REGISTERS	01-SAVE
				849	*		00689001
000726	187F			850		LR R7,R15	00690001
		R:7 006FC		851		USING IHIORCL,R7	00691001
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 691 in SYSD.ALGOFLRT.ASM(IHIOR)							
000728	50D0 75F8		00CF4	852		ST R13,SAVAR+4	00692001
00072C	41D0 75F4		00CF0	853		LA R13,SAVAR	00693001
000730	5880 5000		00000	854		L R8,ADCB	00694001
				855	*		00695001
				856	*	DATASET 1 IS TO BE CLOSED ONLY IF DS15=1	00696001
				857	*		00697001
				858	*	IF DS15 = 0 FILL CURRENT BLOCK WITH BLANKS AND BRANCH	00698001
				859	*	TO ROUTINE IHIORNX TO WRITE THE BLOCK AND RETURN	00699001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000734	4960 765C		00D58	860 *			00700001
000738	4770 7084		00780	861	CH	R6,=H'1'	00701001
00073C	9101 501B	0001B		862	BNE	CLOSE01	00702001
000740	4710 7084		00780	863	TM	DSF+1,DS15	00703001
000744	9622 501A	0001A		864	BO	CLOSE01	00704001
000748	947F 501A	0001A		865	OI	DSF,DS2+DS6	00705001
00074C	4820 5020		00020	866	NI	DSF,255-DS0	00706001
000750	5A20 5010		00010	867	LH	R2,BL	00707001
000754	5830 5004		00004	868	A	R2,BB	00708001
000758	5020 5004		00004	869	L	R3,R	00709001
00075C	1B23			870	ST	R2,R	00710001
00075E	4780 7072		0076E	871	SR	R2,R3	00711001
000762	9240 3000	00000		872	BZ	CLOSE02	00712001
000766	4133 0001		00001	873	MVI	0(R3),C'	00713001
00076A	4620 7066		00762	874	LA	R3,1(R3)	00714001
00076E	9400 5014	00014		875	BCT	R2,CLOSE03	00715001
000772	D200 5015	5019 00015	00019	876	NI	S,X'00'	00716001
000778	5870 7648		00D44	877	MVC	S+1(1),Q	00717001
00077C	47F0 700E		0000E	878	L	R7,VIORNX	00718001
				879	B	14(,R7)	00719001
				880 *			00720001
000780	9101 501A	0001A		881	CLOSE01	TM DSF,DS7	00721001
000784	4710 712C		00828	882	BO	CLOSE1	00722001
000788	9104 501B	0001B		883	TM	DSF+1,DSIOERR	00723001
00078C	4710 712C		00828	884	BO	CLOSE1	00724001
000790	4140 8058		00058	885	LA	R4,DECB	00725001
000794	5820 4008		00008	886	L	R2,8(,R4)	00726001
000798	1928			887	CR	R2,R8	00727001
00079A	4770 70B4		007B0	888	BNE	CLOSE2	00728001
00079E	9680 501B	0001B		889	OI	DSF+1,DS8	00729001
				890 *			00730001
				891	CLOSE0	CHECK DECB	00731001
0007A2	4110 8058		00058	892+	CLOSE0	LA 1,DECB	02-IHBN
0007A6	58E0 1008		00008	893+	L	14,8(0,1)	01-CHECK
0007AA	58F0 E034		00034	894+	L	15,52(0,14)	01-CHECK
0007AE	05EF			895+	BALR	14,15	01-CHECK
				896 *			00732001
0007B0	9120 501A	0001A		897	CLOSE2	TM DSF,DS2	00733001
0007B4	4780 712C		00828	898	BZ	CLOSE1	00734001
0007B8	9102 501A	0001A		899	TM	DSF,DS6	00735001
0007BC	4710 70D6		007D2	900	BO	WRITE2	00736001
0007C0	1818			901	LR	R1,R8	00737001
				902 *			00738001
				903	POINT	(1),NOTEADR	00739001
0007C2	4100 501C		0001C	904+	LA	0,NOTEADR	02-IHBN
0007C6	58F0 1054		00054	905+	L	15,84(0,1)	01-POINT
0007CA	45EF 0004		00004	906+	BAL	14,4(15,0)	01-POINT
				907 *			00740001
0007CE	47F0 70DE		007DA	908	B	WRITE1	00741001
				909 *			00742001
0007D2	9110 501A	0001A		910	WRITE2	TM DSF,DS3	00743001
0007D6	4780 712C		00828	911	BZ	CLOSE1	00744001
				912 *			00745001
				913 *		OUTPUT HAS OCCURED, FILL BUFFER WITH BLANKS AND WRITE	00746001
				914 *			00747001
0007DA	4820 5020		00020	915	WRITE1	LH R2,BL	00748001
0007DE	5830 5004		00004	916	L	R3,R	00749001
0007E2	5B20 5004		00004	917	S	R2,R	00750001
0007E6	5A20 5010		00010	918	A	R2,BB	00751001
0007EA	4780 70FE		007FA	919	BZ	CLOSE21	00752001
0007EE	9240 3000	00000		920	CLOSE22	MVI 0(R3),C'	00753001
0007F2	4130 3001		00001	921	LA	R3,1(,R3)	00754001
0007F6	4620 70F2		007EE	922	BCT	R2,CLOSE22	00755001
				923 *			00756001
				924 *		WRITE BUFFER	00757001
				925 *			00758001
0007FA	5820 5010		00010	926	CLOSE21	L R2,BB	00759001
				927 *			00760001
				928	CLOSE211	WRITE DECB,SF,(R8),(R2),MF=E	00761001
0007FE	4110 8058		00058	929+	CLOSE211	LA 1,DECB	02-IHBRD
000802	9220 1005	00005		930+	MVI	5(1),X'20'	02-IHBRD
000806	5081 0008		00008	931+	ST	R8,8(1,0)	02-IHBRD
00080A	5021 000C		0000C	932+	ST	R2,12(1,0)	02-IHBRD
00080E	58F1 0008		00008	933+	L	15,8(1,0)	02-IHBRD
000812	58F0 F030		00030	934+	L	15,48(0,15)	02-IHBRD
000816	05EF			935+	BALR	14,15	02-IHBRD
				936 *			00762001
				937	CHECK	DECB	00763001
000818	4110 8058		00058	938+	LA	1,DECB	02-IHBN
00081C	58E0 1008		00008	939+	L	14,8(0,1)	01-CHECK
000820	58F0 E034		00034	940+	L	15,52(0,14)	01-CHECK
000824	05EF			941+	BALR	14,15	01-CHECK
				942 *			00764001
				943 *		CLOSE DATASET	00765001
				944 *			00766001
				945	CLOSE1	CLOSE ((R8),REREAD)	00767001
000826	0700			946+	CNOP	0,4	01-CLOSE
000828	4510 7134		00830	947+	CLOSE1	BAL 1,*+8	01-CLOSE
00082C	00000000			948+	DC	A(0)	01-CLOSE
000830	5081 0000		00000	949+	ST	R8,0(1,0)	01-CLOSE
000834	9290 1000	00000		950+	MVI	0(1),144	01-CLOSE
000838	0A14			951+	SVC	20	01-CLOSE
				952 *			00768001
00083A	5810 5010		00010	953	L	R1,BB	00769001
00083E	5910 500C		0000C	954	C	R1,NBB	00770001
000842	4740 714E		0084A	955	BL	*+8	00771001
						THE LOWEST ADDR TO R1	

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000846	5810 500C		0000C	956	L	R1,NBB	00772001
00084A	4800 5020		00020	957	LH	R0,BL	00773001
00084E	8B00 0001		00001	958	SLA	R0,1	00774001
				959 *			00775001
				960 *		FREEMAIN FOR RECORD BUFFERS	00776001
				961 *			00777001
				962		FREEMAIN R,LV=(0),A=(1)	00778001
				963+*		OS/VS2 RELEASE 3 VERSION -- 10/25/74	01-FREEM
000852	4110 1000		00000	964+	LA	1,0(0,1)	01-FREEM
000856	0A0A			965+	SVC	10	01-FREEM
				966 *			00779001
				967 *		FREEMAIN FOR DCB AND DECB	00780001
				968 *			00781001
				969		FREEMAIN R,LV=DCBAREAL-JFCB_LEN,A=ADCB	00782001
				970+*		OS/VS2 RELEASE 3 VERSION -- 10/25/74	01-FREEM
000858				971+	CNOP	0,4	01-FREEM
000858	47F0 7164		00860	972+	B	*+8	01-FREEM
00085C	00000070			973+	DC	A(DCBAREAL-JFCB_LEN)	01-FREEM
000860	5800 7160		0085C	974+	L	0,*-4	01-FREEM
000864	5810 5000		00000	975+	L	1,ADCB	01-FREEM
000868	4110 1000		00000	976+	LA	1,0(0,1)	01-FREEM
00086C	0A0A			977+	SVC	10	01-FREEM
				978 *			00783001
00086E	1B22			979	SR	R2,R2	00784001
000870	4120 2001		00001	980	LA	R2,1(,R2)	00785001
000874	4020 5014		00014	981	STH	R2,S	00786001
000878	4120 2001		00001	982	LA	R2,1(,R2)	00787001
00087C	D201 5016 7668 00016	00D64		983	MVC	P(2),=H'80'	00788001
000882	1226			984	LTR	R2,R6	00789001
000884	4780 719A		00896	985	BZ	CLOSE3	00790001
000888	4620 7194		00890	986	BCT	R2,CLOSE4	00791001
00088C	47F0 719A		00896	987	B	CLOSE3	00792001
				988 *			00793001
000890	58F0 7640		00D3C	989	CLOSE4	L	00794001
000894	05EF			990	BALR	R14,R15	00795001
000896	D201 501A 5022 0001A	00022		991	CLOSE3	MVC	00796001
00089C	58D0 75F8		00CF4	992	L	R13,SAVAR+4	00797001
				993 *			00798001
				994		RETURN (14,12)	00799001
0008A0	98EC D00C		0000C	995+	LM	14,12,12(13)	01-RETUR
0008A4	07FE			996+	BR	14	01-RETUR
				997 *			00800001
				998 *			00801001
				999 *		CLOSE ALL DATASETS	00802001
				1000 *			00803001
				1001 *			00804001
				1002 *		FUNCTION/OPERATION -	00805001
				1003 *		CALL ROUTINE CLOSE FOR ALL OPEN DATASETS AND ROUTINE	00806001
				1004 *		CLOSEGP IN IHIGPR MODULE	00807001
				1005 *			00808001
				1006 *		THIS ROUTINE IS CALLED FROM IHIFSA AND IHIERR. IN BOTH	00809001
				1007 *		CASES R5 CONTAINS THE ADDR OF THE ENTRY IN DSTABLE	00810001
				1008 *		FOR DATASET ONE IE DSTABLE+40	00811001
				1009 *			00812001
				1010	IHIORCP	SAVE (14,12),, 'IHIORCP LEVEL 2.1 &SYSDATE &SYSTIME'	00813001
0008A6	47F0 F026		00026	1011+IHIORCP	B	38(0,15)	01-SAVE
0008AA	21			1012+	DC	AL1(33)	01-SAVE
0008AB	C9C8C9C9D6D9C3D7			1013+	DC	CL32'IHIORCP LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
0008CB	F1			1014+	DC	CL1'1'	01-SAVE
0008CC	90EC D00C		0000C	1015+	STM	14,12,12(13)	01-SAVE
				1016 *			00814001
0008D0	187F			1017	LR	R7,R15	00815001
		R:7 008A6		1018	USING	IHIORCP,R7	00816001
						SAVE REGISTER	
						** TXA533W USING range overlaps prior USING at statement 161.	
						** TXA301I Record 816 in SYSD.ALGOLFRT.ASM(IHIOR)	
0008D2	50D0 70BA		00960	1019	ST	R13,SAVCLO+4	00817001
0008D6	41D0 70B6		0095C	1020	LA	R13,SAVCLO	00818001
0008DA	1B66			1021	SR	R6,R6	00819001
0008DC	4B50 74C0		00D66	1022	SH	R5,=H'40'	00820001
0008E0	BF2F 5000		00000	1023	ICM	R2,B'1111',0(R5)	00821001
0008E4	4720 7086		0092C	1024	BP	CLOSEPE4	00822001
0008E8	4120 2000		00000	1025	LA	R2,0(,R2)	00823001
0008EC	4150 5004		00004	1026	LA	R5,4(,R5)	00824001
0008F0	1925			1027	CLOSEPE2	CR	00825001
0008F2	4780 7098		0093E	1028	BE	CLOSEPE3	00826001
0008F6	94FD 5023		00023	1029	NI	BL+3,255-DS6	00827001
0008FA	4960 74B2		00D58	1030	CH	R6,=H'1'	00828001
0008FE	4780 707A		00920	1031	BE	CLOSEPE5	00829001
000902	9180 501A		0001A	1032	CLOSEPE7	TM	00830001
000906	4780 706E		00914	1033	BZ	CLOSEPE1	00831001
				1034 *			00832001
				1035 *		CALL FOR ROUTINE CLOSE	00833001
				1036 *			00834001
00090A	5880 5000		00000	1037	CLOSEPE6	L	00835001
00090E	58F0 70FE		009A4	1038	L	R15,ACLOSE	00836001
000912	05EF			1039	BALR	R14,R15	00837001
000914	4150 5024		00024	1040	CLOSEPE1	LA	00838001
000918	4160 6001		00001	1041	LA	R6,1(,R6)	00839001
00091C	47F0 704A		008F0	1042	B	CLOSEPE2	00840001
				1043 *			00841001
000920	9102 501B		0001B	1044	CLOSEPE5	TM	00842001
000924	4780 705C		00902	1045	BZ	CLOSEPE7	00843001
000928	47F0 7064		0090A	1046	B	CLOSEPE6	00844001
				1047 *			00845001
00092C	9180 201B		0001B	1048	CLOSEPE4	TM	00846001
000930	4780 7046		008EC	1049	BZ	CLOSEPE2-4	00847001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000934	58F0 7102		009A8	1050	L	R15,IHIORGP	00848001
000938	05EF			1051	BALR	R14,R15	00849001
00093A	47F0 7046		008EC	1052	B	CLOSEPE2-4	00850001
				1053 *			00851001
				1054 *		ALL DATASETS ARE CLOSED	00852001
				1055 *			00853001
00093E	581C 00B0		000B0	1056	CLOSEPE3	L R1,ANOTTAB(R12)	00854001
000942	1211			1057	LTR	R1,R1	00855001
000944	4780 70AC		00952	1058	BZ	RETCLOSP	00856001
				1059 *			00857001
				1060		FREEMAIN R, LV=1024,A=(1) FREE NOTTAB	00858001
				1061+*		OS/VS2 RELEASE 3 VERSION -- 10/25/74	01-FREEM
000948	4100 0400		00400	1062+	LA	0,1024(0,0)	01-FREEM
00094C	4110 1000		00000	1063+	LA	1,0(0,1)	01-FREEM
000950	0A0A			1064+	SVC	10	01-FREEM
				1065 *			00859001
000952	58D0 70BA		00960	1066	RETCLOSP	L R13,SAVCLO+4	00860001
				1067 *			00861001
				1068		RETURN (14,12)	00862001
000956	98EC D00C		0000C	1069+	LM	14,12,12(13)	01-RETUR
00095A	07FE			1070+	BR	14	01-RETUR
				1071 *			00863001
00095C	0000000000000000			1072	SAVCLO	DC 18F'0'	00864001
				1073 *			00865001
				1074 *		EXTERNAL ADDR	00866001
				1075 *			00867001
0009A4	000006FC			1076	ACLOSE	DC A(IHIORCL)	00868001
				1077 *			00869001
0009A8	00000000			1078	IHIORGP	DC A(0)	00870001
				1079 *			00871001
				1080 *			00872001
				1081 *		CLEAR NOTTAB	00873001
				1082 *			00874001
				1083 *			00875001
				1084 *		FUNCTION/OPERATION -	00876001
				1085 *		ALL ENTRIES IN NOTTAB FOR RECORDS EQUAL OR GREATER THAN	00877001
				1086 *		ACTUAL RECORD COUNTERS ARE CLEARED BY INSERTING INVALID	00878001
				1087 *		FLAG	00879001
				1088 *			00880001
				1089	IHIORCN	SAVE (14,12),,'IHIORCN LEVEL 2.1 &SYSDATE &SYSTIME'	00881001
0009AC	47F0 F026		00026	1090+	IHIORCN	B 38(0,15)	01-SAVE
0009B0	21			1091+	DC	AL1(33)	01-SAVE
0009B1	C9C8C9C9D6D9C3D5			1092+	DC	CL32'IHIORCN LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
0009D1	F1			1093+	DC	CL1'1'	01-SAVE
0009D2	90EC D00C		0000C	1094+	STM	14,12,12(13)	01-SAVE
				1095 *			00882001
0009D6	187F			1096	LR	R7,R15	00883001
		R:7 009AC		1097	USING	IHIORCN,R7	00884001
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 884 in SYSD.ALGOLFRT.ASM(IHIOR)							
0009D8	589C 00B0		000B0	1098	L	R9,ANOTTAB(R12)	00885001
0009DC	1849			1099	LR	R4,R9	00886001
0009DE	4140 4008		00008	1100	CLNOTB1	LA R4,8(,R4)	00887001
0009E2	5940 9000		00000	1101	C	R4,0(,R9)	00888001
0009E6	4780 705A		00A06	1102	BE	RETCLEAR	00889001
0009EA	1826			1103	LR	R2,R6	00890001
0009EC	4920 4000		00000	1104	CH	R2,0(,R4)	00891001
0009F0	4770 7032		009DE	1105	BNE	CLNOTB1	00892001
0009F4	D501 5014	4002 00014	00002	1106	CLC	S(2),2(R4)	00893001
0009FA	4720 7032		009DE	1107	BH	CLNOTB1	00894001
0009FE	9280 4000		00000	1108	MVI	0(R4),X'80'	00895001
000A02	47F0 7032		009DE	1109	B	CLNOTB1	00896001
				1110 *			00897001
				1111	RETCLEAR	RETURN (14,12)	00898001
000A06				1112+	RETCLEAR	DS 0H	01-RETUR
000A06	98EC D00C		0000C	1113+	LM	14,12,12(13)	01-RETUR
000A0A	07FE			1114+	BR	14	01-RETUR
				1115 *			00899001
				1116 *			00900001
				1117 *		CLEAR NOTTAB	00901001
				1118 *			00902001
				1119 *			00903001
				1120 *		FUNCTION/OPERATION -	00904001
				1121 *		AN ENTRY FOR RECORD JUST HANDLED IS MADE IN NOTTAB	00905001
				1122 *			00906001
				1123 *		NOTES - ON ENTRY R1 = NOTEADR FROM DSTABLE	00907001
				1124 *			00908001
				1125 *			00909001
				1126	IHIIOREN	SAVE (14,12),,'IHIIOREN LEVEL 2.1 &SYSDATE &SYSTIME'	00910001
000A0C	47F0 F026		00026	1127+	IHIIOREN	B 38(0,15)	01-SAVE
000A10	21			1128+	DC	AL1(33)	01-SAVE
000A11	C9C8C9C9D6D9C5D5			1129+	DC	CL32'IHIIOREN LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000A31	F1			1130+	DC	CL1'1'	01-SAVE
000A32	90EC D00C		0000C	1131+	STM	14,12,12(13)	01-SAVE
				1132 *			00911001
000A36	187F			1133	LR	R7,R15	00912001
		R:7 00A0C		1134	USING	IHIIOREN,R7	00913001
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 913 in SYSD.ALGOLFRT.ASM(IHIOR)							
000A38	589C 00B0		000B0	1135	L	R9,ANOTTAB(R12)	00914001
000A3C	1849			1136	LR	R4,R9	00915001
000A3E	4140 4008		00008	1137	ENNOTB1	LA R4,8(,R4)	00916001
000A42	5940 9000		00000	1138	C	R4,0(,R9)	00917001
000A46	4770 706C		00A78	1139	BNE	ENNOTB3	00918001
000A4A	5820 9000		00000	1140	L	R2,0(,R9)	00919001
000A4E	4120 2008		00008	1141	LA	R2,8(,R2)	00920001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000A52	5020 9000		00000	1142	ST	R2,0(,R9)	00921001
000A56	5920 9004		00004	1143	C	R2,4(,R9)	00922001
000A5A	4780 7078		00A84	1144	BE	ENNERR4	00923001
000A5E	1826			1145	LR	R2,R6	00924001
000A60	8820 0010		00010	1146	SLA	R2,16	00925001
000A64	5020 4000		00000	1147	ST	R2,0(,R4)	00926001
000A68	D201 4002	5014 00002	00014	1148	MVC	2(2,R4),S	00927001
000A6E	5010 4004		00004	1149	ST	R1,4(,R4)	00928001
				1150	*		00929001
				1151		RETURN (14,12)	00930001
000A72	98EC D00C		0000C	1152+	LM	14,12,12(13)	01-RETUR
000A76	07FE			1153+	BR	14	01-RETUR
				1154	*		00931001
000A78	9180 4000	00000		1155	ENNOTB3	TM 0(R4),X'80'	00932001
000A7C	4710 7052		00A5E	1156	BO	ENNOTB2	00933001
000A80	47F0 7032		00A3E	1157	B	ENNOTB1	00934001
				1158	*		00935001
000A84	18DC			1159	ENNERR4	LR 13,R12	00936001
000A86	47FC 01DC		001DC	1160	B	FSAERR+4*(R12)	00937001
				1161	*		00938001
				1162	*		00939001
				1163	*	EVALUATE DATASET NUMBER	00940001
				1164	*		00941001
				1165	*		00942001
				1166	*	FUNCTION/OPERATION -	00943001
				1167	*	ADDR OF DSTABLE IN GENERATED OBJECT MODULE IS PICKED UP	00944001
				1168	*	FROM FSA	00945001
				1169	*	L R4,ADSTAB(R12)	00946001
				1170	*	ACTUAL DATASET NUMBER LOADED IN BINARY FORM TO R6,	00947001
				1171	*	ADDR OF ACTUAL ENTRY IN DSTABLE TO R5, THESE REGISTERS	00948001
				1172	*	ARE KEPT THROUGH ALL I/O MODULES IN ORDER TO ADDR	00949001
				1173	*	POINTERS AND FLAGS IN DSTAB	00950001
				1174	*		00951001
				1175	*	ENTRY POINT -	00952001
				1176	*	DATA IS PASSED VIA NAME	00953001
				1177	*	LA R1,PARMLIST	00954001
				1178	*	BALR R14,R15	00955001
				1179	*		00956001
				1180	*		00957001
				1181	*		00958001
				1182	IHIIOREV	SAVE (14,12),,'IHIIOREV LEVEL 2.1 &SYSDATE &SYSTIME'	00959001
000A8A	47F0 F026		00026	1183+	IHIIOREV	B 38(0,15)	01-SAVE
000A8E	21			1184+	DC	AL1(33)	01-SAVE
000A8F	C9C8C9C9D6D9C5E5			1185+	DC	CL32'IHIIOREV LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000AAF	F1			1186+	DC	CL1'1'	01-SAVE
000AB0	90EC D00C		0000C	1187+	STM	14,12,12(13)	01-SAVE
				1188	*		00960001
000AB4	187F			1189	LR	R7,R15	00961001
		R:7 00A8A		1190	USING	IHIIOREV,R7	00962001
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 962 in SYSD.ALGOLFRT.ASM(IHIOR)							
000AB6	50D0 726A		00CF4	1191	ST	R13,SAVAR+4	00963001
000ABA	41D0 7266		00CF0	1192	LA	R13,SAVAR	00964001
				1193	*		00965001
				1194	*	PARAMETER LIST ADDR IN R1	00966001
				1195	*		00967001
000ABE	BF5F 1000		00000	1196	ICM	R5,B'1111',0(R1)	00968001
000AC2	4720 705A		00AE4	1197	BP	DSNINT	00969001
000AC6	9120 C0C2	000C2		1198	TM	OPTSW(R12),X'20'	00970001
000ACA	4710 704C		00AD6	1199	BO	EVD1	00971001
000ACE	6800 5000		00000	1200	LD	FPR0,0(,R5)	00972001
000AD2	47F0 7050		00ADA	1201	B	EVD1+4	00973001
				1202	*		00974001
000AD6	7800 5000		00000	1203	EVD1	LE FPR0,0(,R5)	00975001
000ADA	58F0 7092		00B1C	1204	L	R15,VIORCI	00976001
000ADE	05EF			1205	BALR	R14,R15	00977001
000AE0	47F0 705E		00AE8	1206	B	DSNINTA	00978001
				1207	*		00979001
000AE4	5800 5000		00000	1208	DSNINT	L R0,0(,R5)	00980001
000AE8	1850			1209	DSNINTA	LR R5,R0	00981001
000AEA	5400 708E		00B18	1210	N	R0,RANGEDSN	00982001
000AEE	4740 7086		00B10	1211	BM	EVDERR0	00983001
000AF2	1865			1212	LR	R6,R5	00984001
000AF4	4100 0024		00024	1213	LA	R0,DSTABLEL	00985001
000AF8	1C40			1214	MR	R4,R0	00986001
000AFA	584C 00AC		000AC	1215	L	R4,ADSTAB(R12)	00987001
000AFE	4155 4004		00004	1216	LA	R5,4(R5,R4)	00988001
000B02	58D0 726A		00CF4	1217	L	R13,SAVAR+4	00989001
000B06	98E4 D00C		0000C	1218	LM	R14,R4,12(R13)	00990001
000B0A	987C D030		00030	1219	LM	R7,R12,48(R13)	00991001
000B0E	07FE			1220	BR	R14	00992001
				1221	*		00993001
000B10	18DC			1222	EVDERR0	LR R13,R12	00994001
000B12	47FC 01CC		001CC	1223	B	FSAERR(R12)	00995001
				1224	*		00996001
000B16	0000						
000B18	FFFFFFFF0			1225	RANGEDSN	DC F'-16'	00997001
				1226	*		00998001
000B1C	00000000			1227	VIORCI	DC V(IHIORCI)	00999001
				1228	*		01000001
				1229	*		01001001
				1230	*	DCB END OF DATA EXIT	01002001
				1231	*		01003001
				1232	*		01004001
				1233	*	FUNCTION/OPERATION - INVOKED VIA CHECK MACRO	01005001
				1234	*		01006001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				1235 *	EXITS	- NORMAL - CHECK FROM SYSACT4 OR CLOSE RELOAD	01007001
				1236 *		REGISTERS AND RETURN TO CALLING PROGRAM	01008001
				1237 *		VIA BR14	01009001
				1238 *		- CHECK FROM NEXTREC - BLOCKED FORMAT SET FLAG DS7 IN	01010001
				1239 *		DSTABLE AND BRANCH TO END OF NEXTREC	01011001
				1240 *		- UNBLOCKED FORMAT OUTPUT - RETURN TO NEXTREC TO WRITE	01012001
				1241 *		BACK CURRENT RECORD	01013001
				1242 *		- UNBLOCKED FORMAT INPUT - SET FLAG DS7 IN DSTABLE AND	01014001
				1243 *		RETURN TO NEXTREC TO UPDATE PTR IN DSTABLE	01015001
				1244 *		- ERROR - CHECK FROM OPEN	01016001
				1245 *		INPUT REQUEST BEYOND END OF DATASET	01017001
				1246 *			01018001
				1247 *			01019001
				1248	IHIIORED	SAVE (14,12),, 'IHIIORED LEVEL 2.1 &SYSDATE &SYSTIME'	01020001
000B20	47F0 F026		00026	1249+	IHIIORED	B 38(0,15) BRANCH AROUND ID	01-SAVE
000B24	21			1250+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000B25	C9C8C9C9D6D9C5C4			1251+	DC	CL32'IHIIORED LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000B45	F1			1252+	DC	CL1'1' IDENTIFIER	01-SAVE
000B46	90EC D00C		0000C	1253+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				1254 *			01021001
000B4A	0570			1255	BALR	R7,0	01022001
		R:7	00B4C	1256	USING	*,R7	01023001
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 1023 in SYSD.ALGOLFRT.ASM(IHIIOR)							
000B4C	50D0 7068		00BB4	1257	ST	R13,SAVE0D+4	01024001
000B50	41D0 7064		00BB0	1258	LA	R13,SAVE0D	01025001
000B54	5880 5000		00000	1259	L	R8,ADCB	01026001
000B58	9108 501B		0001B	1260	TM	DSF+1,DSE0D CHECK FROM OPEN ?	01027001
000B5C	4780 7020		00B6C	1261	BZ	END00	01028001
000B60	94CD 501A		0001A	1262	NI	DSF,255-(DS2+DS3+DS6) SET FLAGS FOR A CORRECT CLOSE	01029001
000B64	18DC			1263	LR	R13,R12	01030001
000B66	47FC 01E0		001E0	1264	B	FSAERR+5*4(R12) INPUT REQUEST BEYOND END	01031001
				1265 *			01032001
				1266	END00	CLOSE ((R8),LEAVE),TYPE=T	01033001
000B6A	0700			1267+	CNOP	0,4	01-CLOSE
000B6C	4510 7028		00B74	1268+	BAL	1,*+8	01-CLOSE
000B70	00000000			1269+	DC	A(0)	01-CLOSE
000B74	5081 0000		00000	1270+	ST	R8,0(1,0)	01-CLOSE
000B78	92B0 1000		00000	1271+	MVI	0(1),176	01-CLOSE
000B7C	0A17			1272+	SVC	23	01-CLOSE
				1273 *			01034001
000B7E	9180 501B		0001B	1274	TM	DSF+1,DS8	01035001
000B82	4780 7044		00B90	1275	BZ	END02	01036001
000B86	58D0 7068		00BB4	1276	L	R13,SAVE0D+4	01037001
000B8A	98EC D00C		0000C	1277	LM	R14,R12,12(R13)	01038001
000B8E	07FE			1278	BR	R14	01039001
				1279 *		RETURN TO CALLING SYSACT4 OR CLOSE ROUTINE	01040001
000B90	9120 501A		0001A	1280	END02	TM DSF,DS2	01041001
000B94	4780 7050		00B9C	1281	BZ	END03	01042001
000B98	47F0 703A		00B86	1282	B	END11	01043001
				1283 *			01044001
000B9C	9601 501A		0001A	1284	END03	OI DSF,DS7	01045001
000BA0	92FF 8060		00060	1285	MVI	DECB+8,X'FF'	01046001
000BA4	58D0 7068		00BB4	1286	L	R13,SAVE0D+4	01047001
000BA8	98EC D00C		0000C	1287	LM	R14,R12,12(R13)	01048001
000BAC	07FE			1288	BR	R14	01049001
				1289 *		RETURN TO CALLING NEXTREC	01050001
				1290 *		INTERNAL ADDRESSES	01051001
				1291 *			01052001
000BAE	0000						
000BB0	0000000000000000			1292	SAVE0D	DC 18F'0'	01053001
				1293 *			01054001
				1294 *		-----	01055001
				1295 *		CONVERSION TO INTEGER	01056001
				1296 *		-----	01057001
				1297 *			01058001
				1298 *		FUNCTION/OPERATION - CONVERT REAL LONG OR SHORT TO INTEGER	01059001
				1299 *			01060001
				1300 *		NOTES - CALLED BY BALR 14,15	01061001
				1301 *		DATA PASSED BY VALUE IN FPR0	01062001
				1302 *		RESULT IN R0	01063001
				1303 *			01064001
000BF8	9120 C0C2		000C2	1304	IHIORCI	TM OPTSW(R12),X'20' LONG OR SHORT PRECISION ?	01065001
		R:F	00BF8	1305	USING	IHIORCI,R15	01066001
** TXA533W USING range overlaps prior USING at statement 1256.							
** TXA533W USING range overlaps prior USING at statement 161.							
** TXA301I Record 1066 in SYSD.ALGOLFRT.ASM(IHIIOR)							
000BFC	4780 F010		00C08	1306	BZ	LONG	01067001
000C00	7000 F068		00C60	1307	STE	FPR0,BUFF3	01068001
000C04	6800 F068		00C60	1308	LD	FPR0,BUFF3	01069001
				1309 *			01070001
000C08	6A00 F058		00C50	1310	LONG	AD FPR0,CONST2	01071001
000C0C	6000 F078		00C70	1311	STD	FPR0,BUFF4	01072001
000C10	7900 F080		00C78	1312	CE	FPR0,CONST3	01073001
000C14	47B0 F04A		00C42	1313	BNL	ERROR1	01074001
000C18	6E00 F050		00C48	1314	AW	FPR0,CONST1	01075001
000C1C	4720 F032		00C2A	1315	BP	LABEL	01076001
000C20	D507 F078	F070	00C70	00C68	1316	CLC	BUFF4(8),CONST4
000C26	4720 F04A		00C42	1317	BH	ERROR1	01078001
000C2A	6000 F060		00C58	1318	LABEL	STD FPR0,BUFF2	01079001
000C2E	5800 F064		00C5C	1319	L	R0,BUFF2+4	01080001
000C32	5700 F054		00C4C	1320	X	R0,CONST1+4	01081001
000C36	6B00 F050		00C48	1321	SD	FPR0,CONST1	01082001
000C3A	6900 F078		00C70	1322	CD	FPR0,BUFF4	01083001
000C3E	07DE			1323	BNHR	R14	01084001
000C40	060E			1324	BCTR	R0,R14	01085001

Active USINGS: IHIORTN+X'BF8',R15 IHIORTN+X'B4C',R7 IHADCB,R8 DSTABLE,R5 IHIORTN,R4

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17	13.21
000C42	18DC			1325	ERROR1	LR R13,R12			01086001
000C44	47FC 01D0		001D0	1326	B	FSAERR+1*4(R12)			01087001
				1327	*				01088001
				1328	*	INTERNAL CONSTANTS AND STORAGE			01089001
				1329	*				01090001
000C48				1330	DC	0D'0'			01091001
000C48	4E00000080000000			1331	CONST1	DC X'4E00000080000000'			01092001
000C50	4080000000000000			1332	CONST2	DC X'4080000000000000'			01093001
000C58	0000000000000000			1333	BUFF2	DC D'0'			01094001
000C60	0000000000000000			1334	BUFF3	DC D'0'			01095001
000C68	C880000000000000			1335	CONST4	DC X'C880000000000000'			01096001
000C70	0000000000000000			1336	BUFF4	DC D'0'			01097001
000C78	48800000			1337	CONST3	DC X'48800000'			01098001
				1338	*				01099001
				1339	*	DCB SYNAD EXIT			01100001
				1340	*				01101001
				1341	*	EXIT - NORMAL - BRANCH ERROR UNRECOVERABLE I/O ERROR			01102001
				1342	*				01103001
000C7C	187F			1343	IHIORER	LR R7,R15			01104001
	R:7 00C7C			1344	USING	IHIORER,R7			01105001
** TXA533W USING range overlaps prior USING at statement 1305.									
** TXA533W USING range overlaps prior USING at statement 161.									
** TXA301I Record 1105 in SYSD.ALGOLFRT.ASM(IHIOR)									
000C7E	9604 501B		0001B	1345	OI	DSF+1,DSIOERR	SET MARK FOR CORRECT CLOSE		01106001
000C82	18DC			1346	LR	R13,R12			01107001
000C84	47FC 024C		0024C	1347	B	FSAERR+32*4(R12)	I/O ERROR		01108001
				1348	*				01109001
				1349	*				01110001
				1350	DCBMODEL	DCB DSORG=PS,MACRF=(RP,WP),DDNAME=ALGLDD,NCP=1, EODAD=IHIORED, EXLST=ADCBEXIT, SYNAD=IHIORER			X01111001 X01112001 X01113001 01114001
				1352+*		DATA CONTROL BLOCK			01-DCB
				1353+*					01-DCB
000C88				1354+*	DCBMODEL	DC 0F'0'	ORIGIN ON WORD BOUNDARY		01-DCB
				1356+*		DIRECT ACCESS DEVICE INTERFACE			01-DCB
000C88	0000000000000000			1358+	DC	BL16'0'	FDAD,DVTBL		01-DCB
000C98	00000000			1359+	DC	A(0)	KEYLE,DEVT,TRBAL		01-DCB
				1361+*		COMMON ACCESS METHOD INTERFACE			01-DCB
000C9C	00			1363+	DC	AL1(0)	BUFNO		01-DCB
000C9D	000001			1364+	DC	AL3(1)	BUFCB		01-DCB
000CA0	0000			1365+	DC	AL2(0)	BUFL		01-DCB
000CA2	4000			1366+	DC	BL2'0100000000000000'	DSORG		01-DCB
000CA4	0000001			1367+	DC	A(1)	IOBAD		01-DCB
				1369+*		FOUNDATION EXTENSION			01-DCB
000CA8	00			1371+	DC	BL1'00000000'	BFTEK,BFLN,HIARCHY		01-DCB
000CA9	000B20			1372+	DC	AL3(IHIORED)	EODAD		01-DCB
000CAC	00			1373+	DC	BL1'00000000'	RECFM		01-DCB
000CAD	000CE0			1374+	DC	AL3(ADCBEXIT)	EXLST		01-DCB
				1376+*		FOUNDATION BLOCK			01-DCB
000CB0	C1D3C7D3C4C44040			1378+	DC	CL8'ALGLDD'	DDNAME		01-DCB
000CB8	02			1379+	DC	BL1'0000010'	OFLGS		01-DCB
000CB9	00			1380+	DC	BL1'00000000'	IPLG		01-DCB
000CBA	2424			1381+	DC	BL2'001001000100100'	MACR		01-DCB
				1383+*		BSAM-BPAM-QSAM INTERFACE			01-DCB
000CBC	00			1385+	DC	BL1'00000000'		RER1	01-DCB
000CBD	000001			1386+	DC	AL3(1)	CHECK, GERR, PERR		01-DCB
000CC0	0000C7C			1387+	DC	A(IHIORER)	SYNAD		01-DCB
000CC4	0000			1388+	DC	H'0'	CIND1, CIND2		01-DCB
000CC6	0000			1389+	DC	AL2(0)	BLKSIZE		01-DCB
000CC8	00000000			1390+	DC	F'0'	WCPO, WCPL, OFFSR, OFFSW		01-DCB
000CCC	00000001			1391+	DC	A(1)	IOBA		01-DCB
000CD0	01			1392+	DC	AL1(1)	NCP		01-DCB
000CD1	000001			1393+	DC	AL3(1)	EOBR, EOBA		01-DCB
				1395+*		BSAM-BPAM INTERFACE			01-DCB
000CD4	00000001			1397+	DC	A(1)	EOBW		01-DCB
000CD8	0000			1398+	DC	H'0'	DIRECT		01-DCB
000CDA	0000			1399+	DC	AL2(0)	LRECL		01-DCB
000CDC	00000001			1400+	DC	A(1)	CNTRL, NOTE, POINT		01-DCB
				1401	*				01115001
			00058	1402	DCBMODLN	EQU *-DCBMODEL	LENGTH OF DCBMODEL FOR MVC		01116001
				1403	*				01117001
000CE0				1404	DC	0F'0'			01118001
000CE0	05			1405	ADCBEXIT	DC X'05'	DCB OPEN EXIT REQUESTED		01119001
000CE1	000370			1406	DC	AL3(IHIORDX)	OPEN EXIT ROUTINE ADDR		01120001
000CE4	87000000			1407	DC	X'87',AL3(0)	JFCB ADDR UPDATED WHEN GETMAINED		01121001
				1408	*				01122001
000CE8	0000000000000000			1409	DWORD	DC D'0'	WORK AREA FOR DSN		01123001
000CF0	0000000000000000			1410	SAVAR	DC 18F'0'			01124001
000D38	00			1411	EXERFLAG	DC X'00'			01125001
				1412	*				01126001
				1413	*	INTERNAL ADDRS			01127001



Active USINGS: IHIORTN+X'C7C',R7 IHIORTN+X'BF8',R15 IHADCB,R8 DSTABLE,R5 IHIORTN,R4

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				1414 *			01128001
000D39	000000						
000D3C	000009AC			1415 VIORCN	DC	A(IHIORCN)	01129001
000D40	00000A0C			1416 VIOREN	DC	A(IHIOREN)	01130001
000D44	000004B4			1417 VIORNK	DC	A(IHIORNK)	01131001
				1418 *			01132001
000D48				1419		LTORG	01133001
000D48	E2E8E2C9D5404040			1420		=CL8'SYSIN '	
000D50	E2E8E2D7D9C9D5E3			1421		=CL8'SYSPRINT'	
000D58	0001			1422		=H'1'	
000D5A	2000			1423		=AL1(DCBMRD,0)	
000D5C	0020			1424		=AL1(0,DCBMRWRT)	
000D5E	F0F1			1425		=CL2'01'	
000D60	2424			1426		=AL1(DCBMRD+DCBMRPT1,DCBMRWRT+DCBMRPT2)	
000D62	005A			1427		=X'005A'	
000D64	0050			1428		=H'80'	
000D66	0028			1429		=H'40'	
000D68	F1			1430		=C'1'	
000D69	32			1431		=X'32'	
				1432 *			01134001
				1433 *		SEE GC28-6615 ALGOL LANGUAGE P82 FOR A DETAILED DESCRIPTION	01135001
				1434 *		OF THE DSTABLE FIELDS MAINTAINED FOR EACH DATASET	01136001
				1435 *			01137001
				1436		DSTABLE DSECT=YES	01138001
000000		00000	00024	1437+DSTABLE	DSECT		01-DSTAB
				1438+*			01-DSTAB
000000	00000000			1439+ADCB	DC	F'0'	01-DSTAB
000004	00000000			1440+R	DC	F'0'	01-DSTAB
						-> DCB CHARACTER POINTER	
000008	00000000			1441+RE	DC	F'0'	01-DSTAB
00000C	00000000			1442+NBB	DC	F'0'	01-DSTAB
000010	00000000			1443+BB	DC	F'0'	01-DSTAB
000014	0001			1444+S	DC	H'1'	01-DSTAB
						RECORD POINTER	
000016	0050			1445+P	DC	H'80'	01-DSTAB
						RECORD LENGTH	
000018	02			1446+K	DC	X'02'	01-DSTAB
						NUMBER OF BLANK DELIM CHARS	
000019	00			1447+Q	DC	X'00'	01-DSTAB
						NO OF RECORDS PER SECTION	
00001A	0000			1448+DSF	DC	H'00'	01-DSTAB
						DATASET FLAGS	
				1449+*			01-DSTAB
				1450+*		DATASET FLAGS - DSF	01-DSTAB
				1451+*			01-DSTAB
	00080			1452+DS0	EQU	X'80'	01-DSTAB
						DATASET OPEN	
	00040			1453+DS1	EQU	X'40'	01-DSTAB
	00020			1454+DS2	EQU	X'20'	01-DSTAB
						LAST I/O OUTPUT	
	00010			1455+DS3	EQU	X'10'	01-DSTAB
	00008			1456+DS4	EQU	X'08'	01-DSTAB
	00004			1457+DS5	EQU	X'04'	01-DSTAB
	00002			1458+DS6	EQU	X'02'	01-DSTAB
						OPEN FOR OUTPUT	
	00001			1459+DS7	EQU	X'01'	01-DSTAB
						END OF FILE	
				1460+*			01-DSTAB
				1461+*		DATASET FLAGS - DSF+1	01-DSTAB
				1462+*			01-DSTAB
	00080			1463+DS8	EQU	X'80'	01-DSTAB
						END OF DATA	
	00040			1464+DS9	EQU	X'40'	01-DSTAB
	00020			1465+DS10	EQU	X'20'	01-DSTAB
						OPENED BY SYSACT 12	
	00010			1466+DS11	EQU	X'10'	01-DSTAB
						INDICATE IHIERR-ROUT	
	00008			1467+DSEOD	EQU	X'08'	01-DSTAB
	00004			1468+DSIOERR	EQU	X'04'	01-DSTAB
						I/O ERROR	
	00002			1469+DS14	EQU	X'02'	01-DSTAB
						DATASET OPENED	
	00001			1470+DS15	EQU	X'01'	01-DSTAB
						CLOSE FROM IHIERR	
				1471+*			01-DSTAB
00001C	00000000			1472+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			1473+BL	DC	H'0'	01-DSTAB
						LRECL+ TWO ARB	
000022	0000			1474+	DC	H'0'	01-DSTAB
				1475+*			01-DSTAB
		00024		1476+DSTABLE	EQU	*-DSTABLE	01-DSTAB
						L'DSTABLE ENTRY	
				1477+*			01-DSTAB
				1478 *			01139001
				1479 *		SYMBOLIC NAMES FOR DCB	01140001
				1480 *			01141001
				1481		PRINT NOGEN	01142001
				1482 *			01143001
				1483		DCBD DSORG=BS,DEV=DA	01144001
				1990 *			01145001
				1991		PRINT GEN	01146001
				1992 *			01147001
				1993 *		DECB	01148001
				1994 *			01149001
				1995		READ DECB,SF,MF=L	01150001
000058	00000000			1996+DECB	DC	F'0'	02-IHBRD
						EVENT CONTROL BLOCK	
00005C	00			1997+	DC	X'00'	02-IHBRD
						TYPE FIELD	
00005D	80			1998+	DC	X'80'	02-IHBRD
						TYPE FIELD	
00005E	0000			1999+	DC	AL2(0)	02-IHBRD
						LENGTH	
000060	00000000			2000+	DC	A(0)	02-IHBRD
						DCB ADDRESS	
000064	00000000			2001+	DC	A(0)	02-IHBRD
						AREA ADDRESS	
000068	00000000			2002+	DC	A(0)	02-IHBRD
						RECORD POINTER WORD	
				2003 *			01151001
000070				2004 JFCB	DS	22D	01152001
000120		00120	00070	2005	ORG	JFCB	01153001
				2006 *			01154001
				2007		IEFJFCBN ,	01155001
				2008+*%JFCBL1 :		MAP THE JFCB	01-IEFJF
				2009+*			01-IEFJF
				2010+*/		*****	01-IEFJF
				2011+*/			01-IEFJF
				2012+*/		JOB FILE CONTROL BLOCK	01-IEFJF
				2013+*/			01-IEFJF
				2014+*/		OS/VS2 038 PTF	@YA05186*/ 01-IEFJF

Active USINGS: IHIORTN+X'C7C',R7 IHIORTN+X'BF8',R15 IHADCB,R8 DSTABLE,R5 IHIORTN,R4

D-Loc	Object Code	Addr1	Addr2	Stmt	Source Statement		X390 3.1.04 2012/08/17 13.21
				2015+/**		*/ 01-IEFJF	
				2016+/**	METHOD OF ACCESS	*/ 01-IEFJF	
				2017+/**	BAL - A DSECT CARD SHOULD PRECEDE MACRO CALL. USING ON	*/ 01-IEFJF	
				2018+/**	INFMJFCB GIVES ADDRESSABILITY FOR ALL SYMBOLS.	*/ 01-IEFJF	
				2019+/**	PL/S - DCL JFCBPTR PTR	*/ 01-IEFJF	
				2020+/**		*/ 01-IEFJF	
				2021+/**	F.E.'S	*/ 01-IEFJF	
				2022+/**	MICROFICHE LISTING - IEFJFCBN	*/ 01-IEFJF	
				2023+/**		*/ 01-IEFJF	
				2024+/**	DEVELOPERS	*/ 01-IEFJF	
				2025+/**	BAL LISTING - SPECIFY LIST=YES ON MACRO CALL.	*/ 01-IEFJF	
				2026+/**	PL/S LISTING - SPECIFY %IHALIST='YES' BEFORE INCLUDE.	*/ 01-IEFJF	
				2027+/**		*/ 01-IEFJF	
				2028+/**	FOR INTEGRATION A LISTING SHOULD NOT BE REQUESTED.	*/ 01-IEFJF	
				2029+/**		*/ 01-IEFJF	
				2030+/**	CHANGE ACTIVITY = YA05186	@YA05186/ 01-IEFJF	
				2031+/**		*/ 01-IEFJF	
				2032+/**	A - DECLARED STRUCTURE TO THE JFCAMPTR FIELD. THE	@YA05186/ 01-IEFJF	
				2033+/**	STRUCTURE SHOWS THE PLACEMENT OF THE SVA WITHIN	@YA05186/ 01-IEFJF	
				2034+/**	THE 4 CHARACTER FIELD.	@YA05186/ 01-IEFJF	
				2035+/**	*****	*/ 01-IEFJF	
				2036+/**	%GOTO JFCBL2; /*	01-IEFJF	
				2037+	PUSH PRINT	01-IEFJF	
				2038+	PRINT OFF	01-IEFJF	
				2627 *		01156001	
000B0				2628 JFCB_LEN EQU	*-JFCB	01157001	
				2629 *		01158001	
				2630 *	CALCULATE TOTAL GETMAINED AREA FOR DCBAREA WITH DECB AND JFCB	01159001	
				2631 *		01160001	
00120				2632 DCBAREAL EQU	*-IHADCB	01161001	
				2633 *		01162001	
				2634 *	REGISTER EQUATES	01163001	
				2635 *		01164001	
				2636	IEZREGS	01165001	
00000				2637+R0	EQU 0	01-IEZRE	
00001				2638+R1	EQU 1	01-IEZRE	
00002				2639+R2	EQU 2	01-IEZRE	
00003				2640+R3	EQU 3	01-IEZRE	
00004				2641+R4	EQU 4	01-IEZRE	
00005				2642+R5	EQU 5	01-IEZRE	
00006				2643+R6	EQU 6	01-IEZRE	
00007				2644+R7	EQU 7	01-IEZRE	
00008				2645+R8	EQU 8	01-IEZRE	
00009				2646+R9	EQU 9	01-IEZRE	
0000A				2647+R10	EQU 10	01-IEZRE	
0000B				2648+R11	EQU 11	01-IEZRE	
0000C				2649+R12	EQU 12	01-IEZRE	
0000D				2650+R13	EQU 13	01-IEZRE	
0000E				2651+R14	EQU 14	01-IEZRE	
0000F				2652+R15	EQU 15	01-IEZRE	
				2653 *		01166001	
00000				2654 FPR0	EQU 0	01167001	
				2655 *		01168001	
				2656	END	01169001	

IOR		Symbol Cross Reference							PAGE 19				
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21	
=AL1(DCBMRRD+DCBMRPT1,DCBMRWRT+DCBMRPT2)													
	1	00000D60	00000001	R	A		1426	325					
=AL1(DCBMRRD,0)													
	1	00000D5A	00000001	R	A		1423	217	291				
=AL1(0,DCBMRWRT)													
	1	00000D5C	00000001	R	A		1424	220	313				
=C'1'	1	00000D68	00000001	C	C		1430	472					
=CL2'01'	2	00000D5E	00000001	C	C		1425	308					
=CL8'SYSIN													
	8	00000D48	00000001	C	C		1420	290					
=CL8'SYSPRINT'													
	8	00000D50	00000001	C	C		1421	312					
=H'1'	2	00000D58	00000001	H	H		1422	167	253	278	401	861	1030
=H'40'	2	00000D66	00000001	H	H		1429	1022					
=H'80'	2	00000D64	00000001	H	H		1428	983					
=X'005A'	2	00000D62	00000001	X	X		1427	493					
=X'32'	1	00000D69	00000001	X	X		1431	492					
ACLOSE	4	000009A4	00000001	A	A		1076	1038					
ADCB	4	00000000	FFFFFFFF	F	F		1439	187M	275M	388	625	854	975 1037 1259
ADCBEXIT	1	00000CE0	00000001	X	X		1405	200M	1374				
ADSTAB	1	000000AC		U			118	1215					
ANOTTAB	1	000000B0		U			119	326	335M	1056	1098	1135	
BB	4	00000010	FFFFFFFF	F	F		1443	412M	659	661M	748	759	798 811 813M 822 868
								918	926	953			
BL	2	00000020	FFFFFFFF	H	H		1473	403M	404	414	449M	511M	588M 592M 642M 749 784M
								790M	823	867	915	957	991 1029M
BUFF2	8	00000C58	00000001	D	D		1333	1318M	1319				
BUFF3	8	00000C60	00000001	D	D		1334	1307M	1308				
BUFF4	8	00000C70	00000001	D	D		1336	1311M	1316	1322			
CLNOTB1	4	000009DE	00000001	I			1100	1105B	1107B	1109B			
CLOSEPE1	4	00000914	00000001	I			1040	1033B					
CLOSEPE2	2	000008F0	00000001	I			1027	1042B	1049B	1052B			
CLOSEPE3	4	0000093E	00000001	I			1056	1028B					
CLOSEPE4	4	0000092C	00000001	I			1048	1024B					
CLOSEPE5	4	00000920	00000001	I			1044	1031B					
CLOSEPE6	4	0000090A	00000001	I			1037	1046B					
CLOSEPE7	4	00000902	00000001	I			1032	1045B					
CLOSE01	4	00000780	00000001	I			881	862B	864B				
CLOSE02	4	0000076E	00000001	I			876	872B					
CLOSE03	4	00000762	00000001	I			873	875B					
CLOSE1	4	00000828	00000001	I			947	882B	884B	898B	911B		
CLOSE2	4	000007B0	00000001	I			897	888B					
CLOSE21	4	000007FA	00000001	I			926	919B					
CLOSE22	4	000007EE	00000001	I			920	922B					
CLOSE3	6	00000896	00000001	I			991	985B	987B				
CLOSE4	4	00000890	00000001	I			989	986B					
CONST1	8	00000C48	00000001	X	X		1331	1314	1320	1321			
CONST2	8	00000C50	00000001	X	X		1332	1310					
CONST3	4	00000C78	00000001	X	X		1337	1312					
CONST4	8	00000C68	00000001	X	X		1335	1316					
DCBAREAL	1	00000120		U			2632	183	271	386	973		
DCBBIT0	1	00000080		U			1505	1591	1599	1611	1634	1661	1663 1664 1666 1689 1692
								1712	1716	1731	1768	1823	1847 1886 1890 1903
DCBBIT1	1	00000040		U			1506	1592	1600	1613	1635	1636	1645 1661 1663 1665 1666
								1694	1712	1714	1716	1734	1735 1736 1771 1772 1823
								1849	1892	1894	1906	1950	
DCBBIT2	1	00000020		U			1507	1593	1601	1614	1615	1616	1635 1636 1640 1646 1661
								1662	1667	1696	1717	1718	1739 1740 1741 1775 1776
								1824	1854	1895	1911	1953	1956
DCBBIT3	1	00000010		U			1508	1594	1614	1616	1617	1635	1648 1668 1699 1717 1720
								1743	1744	1745	1779	1780	1824 1856 1859 1861 1897
								1912	1953	1957			
DCBBIT4	1	00000008		U			1509	1602	1649	1669	1700	1722	1727 1728 1748 1749 1783
								1784	1786	1787	1825	1864	1913 1953 1958
DCBBIT5	1	00000004		U			1510	1603	1650	1672	1673	1702	1722 1724 1725 1728 1752
								1754	1755	1756	1790	1791	1792 1793 1825 1866 1869
								1899	1915	1948			
DCBBIT6	1	00000002		U			1511	1595	1651	1652	1655	1672	1674 1703 1759 1760 1761
								1762	1796	1797	1798	1799	1826 1872 1917 1959
DCBBIT7	1	00000001		U			1512	1596	1651	1653	1655	1676	1707 1764 1765 1802 1803
								1805	1806	1875	1901	1918	1961
DCBBLKSI	2	0000003E	FFFFFFFFE	H	H		1920	446	503	509M	511	516M	574 577 579 588 591M
								642	784	787			
DCBDDNAM	8	00000028	FFFFFFFFE	C	C		1686	198M	287M	290M	308M	312M	
DCBFDAD	8	00000005	FFFFFFFFE	C	C		1532	1535					
DCBIOBA	4	00000044	FFFFFFFFE	A	A		1928	447	788				
DCBLRECL	2	00000052	FFFFFFFFE	H	H		1985	499M	515	549	565M	570M	
DCBMACR	2	00000032	FFFFFFFFE	B	B		1729	291M	313M	325M			
DCBMACRF	2	0000002A	FFFFFFFFE	B	B		1818	217M	220M				
DCBMODEL	4	00000C88	00000001	F	F		1354	190	277	1402			
DCBMODLN	1	00000058		U			1402	190	277				
DCBMRPT1	1	00000004		U			1754	1426					
DCBMRPT2	1	00000004		U			1791	1426					
DCBMRRD	1	00000020		U			1740	1423	1426				
DCBMRWRT	1	00000020		U			1775	1424	1426				
DCBOFLGS	1	00000030	FFFFFFFFE	B	B		1688	353					
DCBOFOPN	1	00000010		U			1699	353					
DCBRECBR	1	00000010		U			1668	495	534				
DCBRECCA	1	00000004		U			1673	495	524	537			
DCBRECF	1	00000080		U			1664	495	524	531			
DCBRECFM	1	00000024	FFFFFFFFE	B	B		1660	495M	522	524	531M	534M	537M
DECB	4	00000058	FFFFFFFFE	F	F		1996	419	425	431	440	460	637 667 672 678 700
								776	801	885	892	929	938 1285M
DSEOD	1	00000008		U			1467	418	445	1260			
DSF	2	0000001A	FFFFFFFFF	H	H		1448	169M	170	221M	226M	260	262M 306 309M 342 355M
								400M	416	418M	445M	470	487 496M 510M 517M 532
								535	540M	545M	548M	552	562 587M 629 650M 654





Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)										X390 3.1.04 2012/08/17 13.21									
0(0)	158	184M	237M	248	272M	331M	387M	404M	405M	480M	619	646M	742M	848	904M	957M	958M	974M		
	995M	1015	1062M	1069M	1094	1113M	1131	1152M	1187	1208M	1209	1210M	1213M	1214	1218M	1253	1277M	1287M		
	1319M	1320M	1324M																	
1(1)	158	182M	184	187	188	204M	206N	207	227M	238M	248	270M	272	275	276	295M	297N	298		
	317M	319N	320	332M	335	336	347M	349N	350	361M	363N	364	376M	378N	379	388M	389M	409M		
	412	413	414M	415	425M	426	431M	432	433N	434N	435N	440M	441	446M	448M	449	452M	453		
	456	460M	461	462N	463N	464N	480M	619	637M	638	643M	647	672M	673	678M	679	680M	681N		
	682N	700M	701	706M	707	710	742M	768M	776M	777	787M	789M	790	793M	794	797	801M	802		
	803N	804N	805N	848	892M	893	901M	905	929M	930	931N	932N	933N	938M	939	947M	949N	950		
	953M	954	956M	964M	975M	976M	995M	1015	1056M	1057M	1063M	1069M	1094	1113M	1131	1149	1152M	1187		
	1196	1218M	1253	1268M	1270N	1271	1277M	1287M												
	158	248	326M	336M	337	339	341	413M	434	472	473M	474	475M	476	480M	504M	505M	574M		
	575M	580M	581M	582M	619	659M	662	681	722M	723	735M	736M	737M	737N	738	742M	748M	749M		
2(2)	750	759M	798M	804	811M	817	822M	823M	824	848	867M	868M	870	871M	875M	886M	887	915M		
	917M	918M	922M	926M	932	979M	980M	981	982M	984M	986M	995M	1015	1023M	1025M	1027	1048	1069M		
	1094	1103M	1104	1113M	1131	1140M	1141M	1142	1143	1145M	1146M	1147	1152M	1187	1218M	1253	1277M	1287M		
	158	199M	200	248	337M	338M	339	340M	341	420M	421	457M	463	480M	503M	505M	506M	508M		
	514M	514N	515M	516	579M	581M	619	742M	848	869M	871	873	874M	874N	916M	920	921M	995M		
4(4)	1015	1069M	1094	1113M	1131	1152M	1187	1218M	1253	1277M	1287M									
	158	160M	161U	248	419M	420	447M	448N	480M	497M	498M	499	505	509	549M	550M	554	557M		
	558	559M	564M	565	568M	569M	570	577	581	591	592	619	660M	661	663	664M	665	667M		
	668	719M	724	727	728M	728N	729	730M	737	731	742M	752M	753	754M	755	768M	789N	812M	813	
	814	815M	816	826M	827	828M	829	848	885M	886	995M	1015	1069M	109						

Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.21
DSTABLE	00000024	FFFFFFFF	1437	4	DSTABLE			
IHADCB	00000120	FFFFFFFE	1488	1	DCBD			

[illegible]



Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
161		USING	Ordinary	00000001	00000000	00001000	4	000E6	237	IHIIOROQ,R4			
163		USING	Ordinary	00000001	000000E6	00001000	7	00C83	593	IHIIOROP,R7			
166		USING	Ordinary	FFFFFFFF	00000000	00001000	5	00023	1345	DSTABLE,R5			
189		USING	Ordinary	FFFFFFFE	00000000	00001000	8	000C7	1285	IHADCB,R8			
622		USING	Ordinary	00000001	000004B4	00001000	7	0088C	830	IHIIORNX,R7			
851		USING	Ordinary	00000001	000006FC	00001000	7	00668	992	IHIIORCL,R7			
1018		USING	Ordinary	00000001	000008A6	00001000	7	004C0	1066	IHIIORCP,R7			
1097		USING	Ordinary	00000001	000009AC	00001000	7	0005A	1109	IHIIORCN,R7			
1134		USING	Ordinary	00000001	00000A0C	00001000	7	00078	1157	IHIIOREN,R7			
1190		USING	Ordinary	00000001	00000A8A	00001000	7	0026A	1217	IHIIOREV,R7			
1256		USING	Ordinary	00000001	00000B4C	00001000	7	00068	1286	*,R7			
1305		USING	Ordinary	00000001	00000BF8	00001000	15	00080	1322	IHIIORCI,R15			
1344		USING	Ordinary	00000001	00000C7C	00001000	7			IHIIORER,R7			

X390 3.1.04 2012/08/17 13.21

The following statements were flagged -

SYSD.ALGOLFRT.ASM(IHIIR)

163(158), 622(508), 851(691), 1018(816), 1097(884), 1134(913), 1190(962), 1256(1023), 1305(1066), 1344(1105)

10 statements flagged in this assembly, 4 was the highest severity code.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHIIR PROCSTEP: X390

Primary input: lines 1 to 1169 of SYSD.ALGOLFRT.ASM(IHIIR)

SYSLIB library records read: 6531

SYSUT1 work file size: 175394 bytes

SYSUT2 work file size: 622416 bytes

SYSUT3 work file size: 93520 bytes

SYSLIN file records written: 69

TXA000I Return code 4, elapsed time 2.38 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIIORTN 000D6A 6

**IHIISY**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYS1.ALGOLFRT.ASM(IHIISY)
SYSLIB	SYS1.MACLIB
	SYS1.TOOLS.MACLIB
	SYS1.ALGOLFRT.ASM
	SYS1.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00158
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	COMPARE ONE CHARACTER FROM AN INPUT BUFFER WITH AN		00008001
				9 *	INTERNAL STRING AND ASSIGN WHEN CORRESPONDENCE POSITION		00009001
				10 *	NUMBER IN STRING TO THIRD ACTUAL PARAMETER		00010001
				11 *			00011001
				12 *	ENTRY POINT -	IHIISYMB - FROM GENERATED OBJECT MODULE	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *		DATA PASSED BY NAME	00015001
				16 *			00016001
				17 *	INPUT -	N/A	00017001
				18 *			00018001
				19 *	OUTPUT -	N/A	00019001
				20 *			00020001
				21 *	EXTERNAL ROUTINES -		00021001
				22 *	IHIOR -	EVALUATE DATASET NUMBER	00022001
				23 *	-	OPEN DATASET	00023001
				24 *	-	CHANGE TO NEXT INPUT RECORD	00024001
				25 *			00025001
				26 *	EXITS -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00026001
				27 *	-	ERROR - INPUT REQUEST BEYOND END OF DATASET NO 5	00027001
				28 *	BRANCH TO	FSA	00028001
				29 *	LA	R13,IHIFSA	00029001
				30 *	B	FSAERR+XX*4(R13) XX ERROR NUMBER	00030001
				31 *			00031001
				32 *	TABLES/WORK AREAS -	N/A	00032001
				33 *			00033001
000000		00000	00150	34	IHIISYMB	CSECT	00034001
				35 *			00035001
				36 *	GENERAL REGISTER USAGE		00036001
				37 *			00037001
				38 *	R5	-> DSTABLE ENTRY	00038001
				39 *	R6	DATASET NUMBER	00039001
				40 *	R3	-> DESTINATION	00040001
				41 *	R4	-> STRING SYMBOL	00041001
				42 *	R9	-> END OF STRING	00042001
				43 *	R10	CHARACTER POINTER	00043001
				44 *	R8	INCREMENT FOR LOOP	00044001
				45 *	R12	-> FSA	00045001
				46 *			00046001
				47 *	DISPLACEMENTS IN	ADRLST IN IHIFSA	00047001
				48 *			00048001
		00000		49	CI	EQU 0 IHIORCI	00049001
		00004		50	CL	EQU 4 IHIORCL	00050001
		00008		51	EV	EQU 8 IHIIOREV	00051001
		0000C		52	NX	EQU 12 IHIIORNX	00052001
		00010		53	OP	EQU 16 IHIIOROP	00053001
		00014		54	OQ	EQU 20 IHIIOROQ	00054001
				55 *			00055001
				56	SAVE	(14,12),, 'IHIISYMB LEVEL 2.1 &SYSDATE &SYSTIME'	00056001
000000	47F0	F026	00026	57+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			58+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9C9E2E8D4C2			59+	DC	CL32'IHIISYMB LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			60+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC	D00C	0000C	61+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
00002A	187F			62	LR	R7,R15	00057001
		R:7	00000	63	USING	IHIISYMB,R7	00058001
00002C	18CD			64	LR	R12,R13 R12 -> FSA	00059001
00002E	41D0	7104	00104	65	LA	R13,SAVEAREA CHAIN SAVE AREAS	00060001
000032	50C0	7108	00108	66	ST	R12,SAVEAREA+4	00061001
000036	50D0	C008	00008	67	ST	R13,8(,R12)	00062001
				68 *			00063001
				69 *	EVALUATE DATASET NUMBER (EVDSN)		00064001
				70 *			00065001
00003A	58F0	C11C	0011C	71	L	R15,IORLST(,R12)	00066001
00003E	58F0	F008	00008	72	L	R15,EV(,R15)	00067001
000042	05EF			73	BALR	R14,R15 CALL IHIIOREV	00068001
000044	5840	1004	00004	74	L	R4,4(,R1) R4 - STRING	00069001
000048	5830	1008	00008	75	L	R3,8(,R1) R3 -> DESTINATION	00070001
00004C	4180	0001	00001	76	LA	R8,1 INCREMENT	00071001
				77 *			00072001
				78 *	TEST IF DATASET IS OPEN		00073001
				79 *			00074001
		R:5	00000	80	USING	DSTABLE,R5	00075001
000050	94DF	501B	0001B	81	NI	DSF+1,255-DS10 SET DS10 = 0	00076001
000054	9500	5019	00019	82	CLI	Q,0 DATASET SECTIONED ?	00077001
000058	4770	70F0	000F0	83	BNE	ERROR2 INCOMPATIBLE ACTION	00078001
00005C	18A6			84	LR	R10,R6 DATASET NO = 1 ?	00079001
00005E	46A0	7066	00066	85	BCT	R10,SYMBBB NO, BRANCH	00080001
000062	47F0	70F0	000F0	86	B	ERROR2 INCOMPATIBLE ACTION	00081001
				87 *			00082001
000066	9180	501A	0001A	88	SYMBBB	TM DSF,DS0 DATASET OPEN ?	00083001
00006A	4780	708E	0008E	89	BZ	SYMBDD NO, BRANCH	00084001
				90 *			00085001
00006E	9120	501A	0001A	91	SYMBCC	TM DSF,DS2 DATASET IS OPEN	00086001
000072	4780	707A	0007A	92	BZ	SYMBEE LAST I/O OUTPUT ?	00087001
000076	47F0	70F6	000F6	93	B	ERROR3 INPUT BEYOND LAST OUTPUT	00088001
				94 *			00089001
00007A	9102	501A	0001A	95	SYMBEE	TM DSF,DS6 OPEN FOR OUTPUT OR EOD ?	00090001
00007E	4780	709C	0009C	96	BZ	EVSYMB	00091001
000082	9101	501A	0001A	97	TM	DSF,DS7 END OF DATA BEEN REACHED ?	00092001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000086	4710 70FC		000FC	98	BO	ERROR5	INPUT RQUEST BEYOND END OF DATA 00093001
00008A	47F0 70F0		000F0	99	B	ERROR2	00094001
				100 *			00095001
00008E	94FD 501A	0001A		101 SYMBDD	NI	DSF,255-DS6	SET DS6 = 0 00096001
000092	58F0 C11C		0011C	102	L	R15,IORLST(,R12)	00097001
000096	58F0 F010		00010	103	L	R15,OP(,R15)	00098001
00009A	05EF			104	BALR	R14,R15	CALL IHIOROP TO OPEN DATASET 00099001
				105 *			00100001
00009C	4890 4000		00000	106 EVSYMB	LH	R9,0(,R4)	LENGTH OF STRING 00101001
0000A0	0690			107	BCTR	R9,0	00102001
0000A2	1A94			108	AR	R9,R4	STRING-END LESS 1 00103001
0000A4	4140 4002		00002	109	LA	R4,2(,R4)	-> STRING-SYMBOL 00104001
0000A8	58A0 5004		00004	110	L	R10,R	CHARACTER POINTER 00105001
0000AC	D500 A000	4000 00000	00000	111 SYMBLOOP	CLC	0(1,R10),0(R4)	00106001
0000B2	4780 70C0		000C0	112	BE	TERMINBB	00107001
0000B6	8748 70AC		000AC	113	BXLE	R4,R8,SYMBLOOP	00108001
0000BA	1B44			114	SR	R4,R4	ZERO INSERTED R4 00109001
0000BC	47F0 70C6		000C6	115	B	TERMINAA	00110001
				116 *			00111001
0000C0	5B40 1004		00004	117 TERMINBB	S	R4,4(,R1)	00112001
0000C4	0640			118	BCTR	R4,0	00113001
0000C6	5040 3000		00000	119 TERMINAA	ST	R4,0(,R3)	NUMBER OF SYMBOL INSERTED 00114001
				120 *			DESTINATION 00115001
0000CA	41A0 A001		00001	121 TERMIN	LA	R10,1(,R10)	00116001
0000CE	59A0 5008		00008	122	C	R10,RE	00117001
0000D2	47B0 70E2		000E2	123	BNL	NEXTREC	00118001
0000D6	50A0 5004		00004	124	ST	R10,R	00119001
0000DA	18DC			125 TERMINCC	LR	R13,R12	00120001
				126 *			00121001
				127	RETURN	(14,12)	RESTORE CALLERS REGS AND RETURN 00122001
0000DC	98EC D00C		0000C	128+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
0000E0	07FE			129+	BR	14	RETURN 01-RETUR
				130 *			00123001
0000E2	58F0 C11C		0011C	131 NEXTREC	L	R15,IORLST(,R12)	00124001
0000E6	58F0 F00C		0000C	132	L	R15,NX(,R15)	R15 -> IHIORN 00125001
0000EA	05EF			133	BALR	R14,R15	GET NEXT RECORD 00126001
0000EC	47F0 70DA		000DA	134	B	TERMINCC	00127001
				135 *			00128001
0000F0	18DC			136 ERROR2	LR	R13,R12	00129001
0000F2	47FC 01D4		001D4	137	B	FSAERR+2*4(R12)	INCOMPATIBLE ACTION ON DATASET 00130001
				138 *			00131001
0000F6	18DC			139 ERROR3	LR	R13,R12	00132001
0000F8	47FC 01D8		001D8	140	B	FSAERR+3*4(R12)	INPUT BEYOND LAST OUTPUT 00133001
				141 *			00134001
0000FC	18DC			142 ERROR5	LR	R13,R12	00135001
0000FE	47FC 01E0		001E0	143	B	FSAERR+5*4(R12)	INPUT REQUEST BEYOND END OF DATA 00136001
				144 *			00137001
000102	0000						
000104	0000000000000000			145 SAVEAREA	DC	18F'0'	SAVE AREA 00138001
				146 *			00139001
000150				147	LTORG		00140001
				148 *			00141001
				149	DSTABLE	DSECT=YES	00142001
000000		00000 00024		150+DSTABLE	DSECT		01-DSTAB
				151+			01-DSTAB
000000	00000000			152+ADCB	DC	F'0'	-> DCB 01-DSTAB
000004	00000000			153+R	DC	F'0'	CHARACTER POINTER 01-DSTAB
000008	00000000			154+RE	DC	F'0'	01-DSTAB
00000C	00000000			155+NBB	DC	F'0'	01-DSTAB
000010	00000000			156+BB	DC	F'0'	01-DSTAB
000014	0001			157+S	DC	H'1'	RECORD POINTER 01-DSTAB
000016	0050			158+P	DC	H'80'	RECORD LENGTH 01-DSTAB
000018	02			159+K	DC	X'02'	NUMBER OF BLANK DELIM CHARS 01-DSTAB
000019	00			160+Q	DC	X'00'	NO OF RECORDS PER SECTION 01-DSTAB
00001A	0000			161+DSF	DC	H'00'	DATASET FLAGS 01-DSTAB
				162+			01-DSTAB
				163+		DATASET FLAGS - DSF	01-DSTAB
				164+			01-DSTAB
		00080		165+DS0	EQU	X'80'	DATASET OPEN 01-DSTAB
		00040		166+DS1	EQU	X'40'	01-DSTAB
		00020		167+DS2	EQU	X'20'	LAST I/O OUTPUT 01-DSTAB
		00010		168+DS3	EQU	X'10'	01-DSTAB
		00008		169+DS4	EQU	X'08'	01-DSTAB
		00004		170+DS5	EQU	X'04'	01-DSTAB
		00002		171+DS6	EQU	X'02'	OPEN FOR OUTPUT 01-DSTAB
		00001		172+DS7	EQU	X'01'	END OF FILE 01-DSTAB
				173+			01-DSTAB
				174+		DATASET FLAGS - DSF+1	01-DSTAB
				175+			01-DSTAB
		00080		176+DS8	EQU	X'80'	END OF DATA 01-DSTAB
		00040		177+DS9	EQU	X'40'	01-DSTAB
		00020		178+DS10	EQU	X'20'	OPENED BY SYSACT 12 01-DSTAB
		00010		179+DS11	EQU	X'10'	INDICATE IHIERR-ROUT 01-DSTAB
		00008		180+DSEOD	EQU	X'08'	01-DSTAB
		00004		181+DSIOERR	EQU	X'04'	I/O ERROR 01-DSTAB
		00002		182+DS14	EQU	X'02'	DATASET OPENED 01-DSTAB
		00001		183+DS15	EQU	X'01'	CLOSE FROM IHIERR 01-DSTAB
				184+			01-DSTAB
00001C	00000000			185+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			186+BL	DC	H'0'	LRECL+ TWO ARB 01-DSTAB
000022	0000			187+	DC	H'0'	01-DSTAB
				188+			01-DSTAB
		00024		189+DSTABLE	EQU	*-DSTABLE	L'DSTABLE ENTRY 01-DSTAB
				190+			01-DSTAB
				191 *			00143001
000000		00000 00120		192 FAS	DSECT		00144001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				193 *			00145001
				194	COPY	FSAREA	00146001
				195=*			00001001
				196=*	COMPONENT ID - 360S-LM-532	ALGOL F LIBRARY	00002001
				197=*			00003001
				198=*	STATUS - LEVEL 2.1		00004001
				199=*			00005001
				200=*****			00006001
				201=*			00007001
				202=*	COMMON DATA AREA		00008001
				203=*			00009001
				204=*	FSAREA		00010001
				205=*			00011001
				206=*****			00012001
				207=*			00013001
				208=*	DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL		00014001
				209=*	MODULES DURING THE EXECUTION		00015001
				210=*			00016001
				211=*	ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY		00017001
				212=*	SUBROUTINES) BY R12		00018001
				213=*			00019001
		00000		214=FSAREA	EQU *		00020001
				215=*			00021001
				216=*	SAVE AREAS		00022001
				217=*			00023001
000000				218=	DS	18F STANDARD SAVE AREA	00024001
		00048		219=ASAVE	EQU *-FSAREA	ALTERNATE SAVE AREA USED BY	00025001
000048				220=	DS	18F CERTAIN SUBROUTINES	00026001
				221=*			00027001
				222=*	MISCELLANEOUS WORK AREAS AND CONSTANTS		00028001
				223=*			00029001
		00090		224=FCTVALST	EQU *-FSAREA	TEMPORARY STORAGE FOR	00030001
000090				225=	DS	D FUNCTION VALUES	00031001
		00098		226=ASTLOC	EQU *-FSAREA	DISPL FOR ADDR OF STAND LOCTN	00032001
000098	00000090			227=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		228=BRRST	EQU *-FSAREA	TEMPORARY SAVE REG BRR	00034001
		0009C		229=HW	EQU	BRRST TEMPORARY HALFWORD STORAGE	00035001
00009C				230=	DS	F	00036001
		000A0		231=PROLREG	EQU *-FSAREA	STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				232=	DS	2A A PROCEDURE IS FORMAL PARAM	00038001
				233=*			00039001
				234=*	HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE		00040001
				235=*			00041001
0000A8				236=	DS	0H	00042001
0000A8	00			237=	DC	X'00'	00043001
		000A9		238=PROLPBN	EQU *-FSAREA	STORAGE FOR CALLED PBN	00044001
0000A9	00			239=	DC	X'00'	00045001
		000AA		240=EIGHT	EQU *-FSAREA	CONST FOR REDUCING RAS	00046001
0000AA	0008			241=	DC	H'8'	00047001
				242=*			00048001
0000AC				243=	DS	0F	00049001
		000AC		244=ADSTAB	EQU *-FSAREA	ADDR OF DSTABLE	00050001
0000AC				245=	DS	A	00051001
		000B0		246=ANOTTAB	EQU *-FSAREA	ADDR OF NOTE TABLE	00052001
0000B0				247=	DS	A (INSERTED BY THE OPEN ROUTINE)	00053001
				248=*			00054001
		000B4		249=IHIFSAST	EQU *		00055001
		000B4		250=PGOPSW	EQU *-FSAREA	PROGRAM CHECK OLD PSW	00056001
0000B4				251=	DS	2F	00057001
		000BC		252=FSAPICA	EQU *-FSAREA	OLD PICA ADDR	00058001
0000BC	00000000			253=	DC	F'0'	00059001
		000C0		254=SCRC	EQU *-FSAREA	SEMICOLON NUMBER	00060001
0000C0				255=	DS	H	00061001
		000C2		256=DTSW	EQU *-FSAREA	OPTION SWITCHES	00062001
		000C2		257=OPTSW	EQU	DTSW	00063001
0000C2	00			258=	DC	X'00'	00064001
		000C3		259=FSAERCOD	EQU *-FSAREA	ERROR CODE FOR ERROR ROUTINE	00065001
0000C3				260=	DS	C	00066001
				261=*			00067001
				262=*	RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER		00068001
				263=*			00069001
0000C4				264=	DS	0F	00070001
		000C4		265=IHIFSARS	EQU *		00071001
		000C4		266=RASSTART	EQU *-FSAREA	ADDR OF FIRST ENTRY IN RAS-8	00072001
0000C4				267=	DS	F	00073001
		000C8		268=RASPT	EQU *-FSAREA	RAS POINTER FROM TOP	00074001
0000C8				269=	DS	F	00075001
		000CC		270=RASEND	EQU *-FSAREA	ADDR OF LAST ENTRY IN RAS+8	00076001
0000CC				271=	DS	F	00077001
		000D0		272=RASPB	EQU *-FSAREA	RAS POINTER FROM BOTTOM	00078001
0000D0				273=	DS	F	00079001
				274=*			00080001
				275=*	LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES		00081001
				276=*			00082001
0000D4				277=BRLIST	DS	0F	00083001
		000D4		278=CAP1	EQU *-FSAREA	FIRST PART CAPS	00084001
0000D4	4700 0000		00000	279=	NOP	0	00085001
		000D8		280=CAP2	EQU *-FSAREA	SECOND PART CAPS	00086001
0000D8	4700 0000		00000	281=	NOP	0	00087001
		000DC		282=PROLOGP	EQU *-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY	00088001
		000DC		283=PROLOGFP	EQU	PROLOGP	00089001
0000DC	4700 0000		00000	284=	NOP	0	00090001
		000E0		285=PROLOG	EQU *-FSAREA	PROLOGUE PROGRAM USUAL ENTRY	00091001
0000E0	4700 0000		00000	286=	NOP	0	00092001
		000E4		287=RETPROG	EQU *-FSAREA	DISPLACEMENT RETURN PROGRAM	00093001
0000E4	4700 0000		00000	288=	NOP	0	00094001



D-Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000E8	4700 0000	000E8	00000	289=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY 00095001
			00000	290=	NOP	0	00096001
0000EC	4700 0000	000EC	00000	291=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY 00097001
			00000	292=	NOP	0	00098001
0000F0	4700 0000	000F0	00000	293=EPIPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3 00099001
			00000	294=	NOP	0	00100001
0000F4	4700 0000	000F4	00000	295=CSWE1	EQU	*-FSAREA	FIRST PART CSWES 00101001
			00000	296=	NOP	0	00102001
0000F8	4700 0000	000F8	00000	297=CSWE2	EQU	*-FSAREA	SECOND PART CSWES 00103001
			00000	298=	NOP	0	00104001
0000FC	4700 0000	000FC	00000	299=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE 00105001
			00000	300=	NOP	0	00106001
000100	D200 0000 0000	00100	00000	301=TRACE	EQU	*-FSAREA	00107001
000106	4700 0000		00000	302=	MVC	0(0),0	00108001
00010A	4700 0000		00000	303=	NOP	0	00109001
			00000	304=	NOP	0	00110001
00010E	4700 0000	0010E	00000	305=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT 00111001
			00000	306=	NOP	0	00112001
000112	0700	00112		307=BCR	EQU	*-FSAREA	00113001
				308=	BCR	0,0	VARIABLE CONDITIONAL BRANCH 00114001
000114	4700 0000	00114	00000	309=GETMSTO	EQU	*-FSAREA	00115001
			00000	310=	NOP	0	00116001
				311=	*		00117001
000118	4700 0000	00118	00000	312=VALUCALL	EQU	*-FSAREA	00118001
			00000	313=	NOP	0	00119001
00011C	4700 0000	0011C	00000	314=IORLST	EQU	*-FSAREA	00120001
			00000	315=	NOP	0	00121001
				316=	*		00122001
		001CC		317=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST 00123001
				318=	*		00124001
				319=	*	DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				320=	*		00126001
0020C				321=OUTOFB	EQU	FSAERR+4*16	00127001
00218				322=NUMBIND	EQU	FSAERR+4*19	00128001
00208				323=ARRAYBD	EQU	FSAERR+4*15	00129001
0026C				324=ERROR40	EQU	FSAERR+4*40	00130001
00224				325=OERR22	EQU	FSAERR+4*22	00131001
00210				326=ENDLESL	EQU	FSAERR+4*17	00132001
00220				327=OERR21	EQU	FSAERR+4*21	00133001
				328=	*		00134001
				329	*		00147001
				330	*	REGISTER EQUATES	00148001
				331	*		00149001
				332		IEZREGS	00150001
00000				333+R0	EQU	0	01-IEZRE
00001				334+R1	EQU	1	01-IEZRE
00002				335+R2	EQU	2	01-IEZRE
00003				336+R3	EQU	3	01-IEZRE
00004				337+R4	EQU	4	01-IEZRE
00005				338+R5	EQU	5	01-IEZRE
00006				339+R6	EQU	6	01-IEZRE
00007				340+R7	EQU	7	01-IEZRE
00008				341+R8	EQU	8	01-IEZRE
00009				342+R9	EQU	9	01-IEZRE
0000A				343+R10	EQU	10	01-IEZRE
0000B				344+R11	EQU	11	01-IEZRE
0000C				345+R12	EQU	12	01-IEZRE
0000D				346+R13	EQU	13	01-IEZRE
0000E				347+R14	EQU	14	01-IEZRE
0000F				348+R15	EQU	15	01-IEZRE
				349	*		00151001
				350		END	00152001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21							
BRRST	1	0000009C		U			228	229											
DSF	2	0000001A	FFFFFFFF	H	H		161	81M	88	91	95	97	101M						
DSTABLE	1	00000000	FFFFFFFF	J			150	80U	189										
DS0	1	00000080		U			165	88											
DS10	1	00000020		U			178	81											
DS2	1	00000020		U			167	91											
DS6	1	00000002		U			171	95	101										
DS7	1	00000001		U			172	97											
DTSW	1	000000C2		U			256	257											
ERROR2	2	000000F0	00000001	I			136	83B	86B	99B									
ERROR3	2	000000F6	00000001	I			139	93B											
ERROR5	2	000000FC	00000001	I			142	98B											
EV	1	00000008		U			51	72											
EVSymb	4	0000009C	00000001	I			106	96B											
FCTVALST	1	00000090		U			224	227											
FSAERR	1	000001CC		U			317	137B	140B	143B	321	322	323	324	325	326	327		
FSAREA	1	00000000	FFFFFFFFE	U			214	219	224	226	227	228	231	238	240	244	246	250	252
								254	256	259	266	268	270	272	278	280	282	285	287
								289	291	293	295	297	299	301	305	307	309	312	314
IIHISymb	1	00000000	00000001	J			34	63U											
IORLST	1	0000011C		U			314	71	102	131									
NEXTREC	4	000000E2	00000001	I			131	123B											
NX	1	0000000C		U			52	132											
OP	1	00000010		U			53	103											
PROLOGP	1	000000DC		U			282	283											
Q	1	00000019	FFFFFFFF	X	X		160	82											
R	4	00000004	FFFFFFFF	F	F		153	110	124M										
RE	4	00000008	FFFFFFFF	F	F		154	122											
R1	1	00000001		U			334	74	75	117									
R10	1	0000000A		U			343	84M	85M	110M	111	121M	122	124					
R12	1	0000000C		U			345	64M	66	67	71	102	125	131	136	137	139	140	142
								143											
R13	1	0000000D		U			346	64	65M	67	125M	136M	139M	142M					
R14	1	0000000E		U			347	73M	104M	133M									
R15	1	0000000F		U			348	62	71M	72M	73B	102M	103M	104B	131M	132M	133B		
R3	1	00000003		U			336	75M	119										
R4	1	00000004		U			337	74M	106	108	109M	111	113M	114M	117M	118M	119		
R5	1	00000005		U			338	80U											
R6	1	00000006		U			339	84											
R7	1	00000007		U			340	62M	63U										
R8	1	00000008		U			341	76M	113										
R9	1	00000009		U			342	106M	107M	108M									
SAVEAREA	4	00000104	00000001	F	F		145	65	66M										
SYMBBB	4	00000066	00000001	I			88	85B											
SYMBDD	4	0000008E	00000001	I			101	89B											
SYMBEE	4	0000007A	00000001	I			95	92B											
SYMBLOOP	6	000000AC	00000001	I			111	113B											
TERMINAA	4	000000C6	00000001	I			119	115B											
TERMINBB	4	000000C0	00000001	I			117	112B											
TERMINCC	2	000000DA	00000001	I			125	134B											

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

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0(0)	61	128M																		
1(1)	61	74	75	117	128M															
2(2)	61	128M																		
3(3)	61	75M	119	128M																
4(4)	61	74M	106	108	109M	111	113M	114M	117M	118M	119	128M								
5(5)	61	80U	128M																	
6(6)	61	84	128M																	
7(7)	61	62M	63U	128M																
8(8)	61	76M	113	128M																
9(9)	61	106M	107M	108M	113	128M														
10(A)	61	84M	85M	110M	111	121M	122	124	128M											
11(B)	61	128M																		
12(C)	61	64M	66	67	71	102	125	128M	131	136	137N	139	140N	142	143N					
13(D)	61	64	65M	67	125M	128	136M	139M	142M											
14(E)	61	73M	104M	128M	129B	133M														
15(F)	57B	61	62	71M	72M	73B	102M	103M	104B	128M	131M	132M	133B							

ISY		Dsect Cross Reference					PAGE		8
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04 2012/08/17 13.21			
DSTABLE	00000024	FFFFFFFF	150	4	DSTABLE				
FAS	00000120	FFFFFFFE	192		PRIMARY INPUT				

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		DSTABLE	FSAREA
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.21
63		USING	Ordinary	00000001	00000000	00001000	7	00108	134	IHIISYMB,R7		
80		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001B	124	DSTABLE,R5		

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHIISY    PROCSTEP: X390

Primary input: lines    1 to    152 of SYSD.ALGOLFRT.ASM(IHIISY)

SYSLIB library records read: 362

SYSUT1 work file size: 32008 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 12160 bytes

SYSLIN file records written: 8

TXA000I Return code 0, elapsed time 0.23 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHII SYMB 00014C 4



**IHILAT**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHILAT)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00162
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION-		00007001
				8 *	1. REDUCE THE CASE TO THE 1ST OCTANT BY USING		00008001
				9 *	ATAN(-X) = -ATAN(X), ATAN(1/X) = PI/2-ATAN(X)		00009001
				10 *	2. REDUCE FURTHER TO THE CASE /X/ LESS THAN TAN(PI/2) BY		00010001
				11 *	ATAN(X)=PI/6+ATAN((X*SQRT3-1)/(X+SQRT3))		00011001
				12 *	3. FOR THE BASIC RANGE (X LESS THAN TAN(PI/12)),		00012001
				13 *	USE A FRACTIONAL APPROXIMATION		00013001
				14 *			00014001
				15 *	ENTRY POINT -		00015001
				16 *	IHILAT - ATAN FUNCTION, LONG		00016001
				17 *	LA R1,PARMLIST		00017001
				18 *	BALR R14,R15		00018001
				19 *	DATA PASSED BY NAME		00019001
				20 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00020001
				21 *			00021001
				22 *	INPUT -	N/A	00022001
				23 *			00023001
				24 *	OUTPUT -	N/A	00024001
				25 *			00025001
				26 *	EXTERNAL ROUTINES -	N/A	00026001
				27 *			00027001
				28 *	EXIT -	NORMAL -	00028001
				29 *	RETURN VIA R14, RESULT IN	FPR0	00029001
				30 *			00030001
				31 *	EXIT -	ERROR - N/A	00031001
				32 *			00032001
				33 *	TABLES/WORKAREAS -	N/A	00033001
				34 *			00034001
000000		00000	00158	35	IHILATAN	CSECT	00035001
				36 *			00036001
				37	ENTRY	IHILAT	00037001
				38 *			00038001
		00000		39	FPR0	EQU 0	00039001
		00002		40	FPR2	EQU 2	00040001
		00004		41	FPR4	EQU 4	00041001
		00006		42	FPR6	EQU 6	00042001
				43 *			00043001
				44	IHILAT	SAVE (14,12),,'IHILATAN LEVEL 2.1 &SYSDATE &SYSTIME'	00044001
000000	47F0 F026		00026	45+	IHILAT	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			46+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D3C1E3C1D5			47+	DC	CL32'IHILATAN LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			48+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	49+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				50 *			00045001
		R:F 00000		51	USING	IHILATAN,R15	00046001
00002A	5810 1000		00000	52	L	R1,0(,R1)	00047001
00002E	6800 1000		00000	53	LD	FPR0,0(,R1)	00048001
000032	7000 F0C8		000C8	54	STE	FPR0,SIGN	00049001
000036	3000			55	LPER	FPR0,FPR0	00050001
000038	1B11			56	SR	R1,R1	00051001
00003A	7900 F140		00140	57	CE	FPR0,ONE	00052001
00003E	4740 F04E		0004E	58	BL	SKIP1	00053001
000042	6820 F140		00140	59	LD	FPR2,ONE	00054001
000046	2D20			60	DDR	FPR2,FPR0	00055001
000048	2802			61	LDR	FPR0,FPR2	00056001
00004A	4110 0010		00010	62	LA	R1,16	00057001
00004E	7900 F150		00150	63	SKIP1	CE FPR0,TAN15	00058001
000052	47D0 F070		00070	64	BNH	SKIP2	00059001
000056	2820			65	LDR	FPR2,FPR0	00060001
000058	6C00 F0D0		000D0	66	MD	FPR0,RT3M1	00061001
00005C	6B00 F148		00148	67	SD	FPR0,HALF	00062001
000060	6B00 F148		00148	68	SD	FPR0,HALF	00063001
000064	2A02			69	ADR	FPR0,FPR2	00064001
000066	6A20 F0D8		000D8	70	AD	FPR2,RT3	00065001
00006A	2D02			71	DDR	FPR0,FPR2	00066001
00006C	4110 1008		00008	72	LA	R1,8(,R1)	00067001
000070	2860			73	SKIP2	LDR FPR6,FPR0	00068001
000072	2C00			74	MDR	FPR0,FPR0	00069001
000074	2820			75	LDR	FPR2,FPR0	00070001
000076	6A20 F118		00118	76	AD	FPR2,BETA4	00071001
00007A	6840 F110		00110	77	LD	FPR4,ALPHA4	00072001
00007E	2D42			78	DDR	FPR4,FPR2	00073001
000080	2A40			79	ADR	FPR4,FPR0	00074001
000082	6A40 F108		00108	80	AD	FPR4,BETA3	00075001
000086	6820 F100		00100	81	LD	FPR2,ALPHA3	00076001
00008A	2D24			82	DDR	FPR2,FPR4	00077001
00008C	2A20			83	ADR	FPR2,FPR0	00078001
00008E	6A20 F0F8		000F8	84	AD	FPR2,BETA2	00079001
000092	6840 F0F0		000F0	85	LD	FPR4,ALPHA2	00080001
000096	2D42			86	DDR	FPR4,FPR2	00081001
000098	2A40			87	ADR	FPR4,FPR0	00082001
00009A	6A40 F0E8		000E8	88	AD	FPR4,BETA1	00083001
00009E	6820 F0E0		000E0	89	LD	FPR2,ALPHA1	00084001
0000A2	2D24			90	DDR	FPR2,FPR4	00085001
0000A4	2C02			91	MDR	FPR0,FPR2	00086001
0000A6	2C06			92	MDR	FPR0,FPR6	00087001
0000A8	2A06			93	ADR	FPR0,FPR6	00088001
0000AA	5910 F154		00154	94	C	R1,KF16	00089001
0000AE	4740 F0B8		000B8	95	BL	SKIP3	00090001
0000B2	3300			96	LCER	FPR0,FPR0	00091001
0000B4	6A01 F110		00110	97	AD	FPR0,PO2M1-16(R1)	00092001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000B8	6A01 F130		00130	98	SKIP3	AD FPR0,ZERO(R1)	00093001
0000BC	9180 F0C8	000C8		99		TM SIGN,X'80'	00094001
0000C0	4780 F0C6		000C6	100		BZ SKIP4	00095001
0000C4	3300			101		LCER FPR0,FPR0	00096001
0000C6	07FE			102	SKIP4	BR R14	00097001
				103	*		00098001
0000C8	00000000			104	SIGN	DC F'0'	00099001
0000CC	00000000						
0000D0				105		DC 0D'0'	00100001
0000D0	40BB67AE8584CAA8			106	RT3M1	DC X'40BB67AE8584CAA8'	00101001
0000D8	411BB67AE8584CAB			107	RT3	DC X'411BB67AE8584CAB'	00102001
0000E0	C0D5F788DF6CB457			108	ALPHA1	DC X'C0D5F788DF6CB457'	00103001
0000E8	414D42F041242098			109	BETA1	DC X'414D42F041242098'	00104001
0000F0	C1DD6E91F2AD24DF			110	ALPHA2	DC X'C1DD6E91F2AD24DF'	00105001
0000F8	4168C2DCB9C0437F			111	BETA2	DC X'4168C2DCB9C0437F'	00106001
000100	C1138256FCDD5CB6			112	ALPHA3	DC X'C1138256FCDD5CB6'	00107001
000108	41224D09A3EFF7AC			113	BETA3	DC X'41224D09A3EFF7AC'	00108001
000110	C0145A9C5C07FB43			114	ALPHA4	DC X'C0145A9C5C07FB43'	00109001
000118	4114451896975D03			115	BETA4	DC X'4114451896975D03'	00110001
000120	40921FB54442D184			116	P02M1	DC X'40921FB54442D184'	00111001
000128	408C152382D73658			117		DC X'408C152382D73658'	00112001
000130	0000000000000000			118	ZERO	DC D'0'	00113001
000138	40860A91C16B9B2D			119		DC X'40860A91C16B9B2D'	00114001
000140	4110000000000000			120	ONE	DC X'4110000000000000'	00115001
000148	4080000000000000			121	HALF	DC X'4080000000000000'	00116001
000150	40449851			122	TAN15	DC X'40449851'	00117001
000154	00000010			123	KF16	DC F'16'	00118001
				124	*		00119001
				125	*	REGISTER EQUATES	00120001
				126	*		00121001
				127		IEZREGS	00122001
00000				128+R0	EQU	0	01-IEZRE
00001				129+R1	EQU	1	01-IEZRE
00002				130+R2	EQU	2	01-IEZRE
00003				131+R3	EQU	3	01-IEZRE
00004				132+R4	EQU	4	01-IEZRE
00005				133+R5	EQU	5	01-IEZRE
00006				134+R6	EQU	6	01-IEZRE
00007				135+R7	EQU	7	01-IEZRE
00008				136+R8	EQU	8	01-IEZRE
00009				137+R9	EQU	9	01-IEZRE
0000A				138+R10	EQU	10	01-IEZRE
0000B				139+R11	EQU	11	01-IEZRE
0000C				140+R12	EQU	12	01-IEZRE
0000D				141+R13	EQU	13	01-IEZRE
0000E				142+R14	EQU	14	01-IEZRE
0000F				143+R15	EQU	15	01-IEZRE
				144	*		00123001
				145		END	00124001

[illegible]

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

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0(0)	49								
1(1)	49	52M	53	56M	62M	72M	94	97N	98N
2(2)	49								
3(3)	49								
4(4)	49								
5(5)	49								
6(6)	49								
7(7)	49								
8(8)	49								
9(9)	49								
10(A)	49								
11(B)	49								
12(C)	49								
13(D)	49								
14(E)	49	102B							
15(F)	45B	49	51U						

Con	Source	Members
-----	--------	---------

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- |   |                      |              |
|---|----------------------|--------------|
| 1 | SYS1.MACLIB          |              |
| 2 | SYSD.TOOLS.MACLIB    | IEZREGS SAVE |
| 3 | SYSD.ALGOLFRT.ASM    |              |
| 4 | SYSD.ALGOLFRT.MACLIB |              |
| 5 | SYS1.AMODGEN         |              |

TAN				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.21
51		USING	Ordinary	00000001	00000000	00001000	15	00154	100	IHILATAN,R15				



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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHILAT PROCSTEP: X390

Primary input: lines 1 to 124 of SYSD.ALGOLFRT.ASM(IHILAT)

SYSLIB library records read: 116

SYSUT1 work file size: 14513 bytes

SYSUT2 work file size: 9634 bytes

SYSUT3 work file size: 9920 bytes

SYSLIN file records written: 9

TXA000I Return code 0, elapsed time 0.13 seconds.

No uninitialized areas found

**IHILEX**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHILEX)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00166
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	Y =	X*LOG2(E) = 4A-B-C/16-D	00008001
				9 *	WHERE A, B, AND C ARE INTEGERS		00009001
				10 *	B BETWEEN 0 AND 3		00010001
				11 *	C BETWEEN 0 AND 15		00011001
				12 *	D IS A FRACTION BETWEEN 0 AND 1/16		00012001
				13 *	THEN		00013001
				14 *	E**X = 2**Y =	(16**A)(2**-B)N2**-C/16)(2**-D)	00014001
				15 *			00015001
				16 *	ENTRY POINT -		00016001
				17 *	IHILEX - EXP FUNCTION, LONG		00017001
				18 *	LA	R1,PARMLIST	00018001
				19 *	BALR	R14,R15	00019001
				20 *	DATA PASSED BY NAME		00020001
				21 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00021001
				22 *			00022001
				23 *	INPUT -	N/A	00023001
				24 *			00024001
				25 *	OUTPUT -	N/A	00025001
				26 *			00026001
				27 *	EXTERNAL ROUTINES -	N/A	00027001
				28 *			00028001
				29 *	EXIT - NORMAL -		00029001
				30 *	RETURN VIA R14, RESULT IN	FPR0	00030001
				31 *			00031001
				32 *	EXIT - ERROR -		00032001
				33 *	IF ARGUMENT GREATER THAN 174673 GOTO ERROR ROUTINE VIA		00033001
				34 *	B FSAERR+24*4(R13)		00034001
				35 *			00035001
				36 *	TABLES/WORKAREAS -	N/A	00036001
				37 *			00037001
000000		00000	001DC	38	IHILEXPT	CSECT	00038001
				39 *			00039001
				40	ENTRY	IHILEX	00040001
				41 *			00041001
		00000		42	FPR0	EQU 0	00042001
		00002		43	FPR2	EQU 2	00043001
				44 *			00044001
				45	IHILEX	SAVE (14,12),, 'IHILEXPT LEVEL 2.1 &SYSDATE &SYSTIME'	00045001
000000	47F0	F026	00026	46+	IHILEX	B 38(0,15)	01-SAVE
000004	21			47+	DC	AL1(33)	01-SAVE
000005	C9C8C9D3C5E7D7E3			48+	DC	CL32 'IHILEXPT LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			49+	DC	CL1 '1'	01-SAVE
000026	90EC	D00C	0000C	50+	STM	14,12,12(13)	01-SAVE
				51 *			00046001
		R:F	00000	52	USING	IHILEXPT,R15	00047001
00002A	5810	1000	00000	53	L	R1,0(,R1)	00048001
00002E	6800	1000	00000	54	LD	FPR0,0(,R1)	00049001
000032	7900	F1D4	001D4	55	CE	FPR0,MAX	00050001
000036	4720	F0FC	000FC	56	BH	ERROR	00051001
00003A	7900	F1D8	001D8	57	CE	FPR0,MIN	00052001
00003E	47D0	F0F6	000F6	58	BH	SMALL	00053001
000042	6D00	F110	00110	59	DD	FPR0,LOGE2	00054001
000046	7000	F108	00108	60	STE	FPR0,SIGN	00055001
00004A	3820			61	LER	FPR2,FPR0	00056001
00004C	7E20	F1D0	001D0	62	AU	FPR2,SCALER	00057001
000050	7020	F10C	0010C	63	STE	FPR2,FIELDS	00058001
000054	2B22			64	SDR	FPR2,FPR2	00059001
000056	7A20	F10C	0010C	65	AE	FPR2,FIELDS	00060001
00005A	2B02			66	SDR	FPR0,FPR2	00061001
00005C	5820	F10C	0010C	67	L	R2,FIELDS	00062001
000060	9180	F108	00108	68	TM	SIGN,X'80'	00063001
000064	4710	F072	00072	69	BO	READY	00064001
				70 *			00065001
000068	6B00	F118	00118	71	SD	FPR0,0N016	00066001
00006C	4120	2001	00001	72	LA	R2,1(,R2)	00067001
000070	1322			73	LCR	R2,R2	00068001
000072	1B33			74	READY	SR R3,R3	00069001
000074	8C20	0004	00004	75	SRDL	R2,4	00070001
000078	8830	0019	00019	76	SRL	R3,25	00071001
00007C	8C20	0002	00002	77	SRDL	R2,2	00072001
000080	8920	0018	00018	78	SLL	R2,24	00073001
000084	1302			79	LCR	R0,R2	00074001
000086	1B22			80	SR	R2,R2	00075001
000088	8D20	0002	00002	81	SLDL	R2,2	00076001
00008C	2820			82	LDR	FPR2,FPR0	00077001
00008E	7C00	F124	00124	83	ME	FPR0,C6	00078001
000092	6A00	F128	00128	84	AD	FPR0,C5	00079001
000096	2C02			85	MDR	FPR0,FPR2	00080001
000098	6A00	F130	00130	86	AD	FPR0,C4	00081001
00009C	2C02			87	MDR	FPR0,FPR2	00082001
00009E	6A00	F138	00138	88	AD	FPR0,C3	00083001
0000A2	2C02			89	MDR	FPR0,FPR2	00084001
0000A4	6A00	F140	00140	90	AD	FPR0,C2	00085001
0000A8	2C02			91	MDR	FPR0,FPR2	00086001
0000AA	6A00	F148	00148	92	AD	FPR0,C1	00087001
0000AE	2C02			93	MDR	FPR0,FPR2	00088001
0000B0	6A00	F150	00150	94	AD	FPR0,C0A	00089001
0000B4	6A00	F150	00150	95	AD	FPR0,C0A	00090001
0000B8	1233			96	LTR	R3,R3	00091001
0000BA	4780	F0D2	000D2	97	BZ	SKIP2	00092001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000BE	7900 F120		00120	98	CE	FPR0,ONE	MULTIPLICATION BY 1
0000C2	4740 F0CE		000CE	99	BL	SKIP1	
0000C6	6803 F150		00150	100	LD	FPR0,MCONST-8(R3)	
0000CA	47F0 F0D2		000D2	101	B	SKIP2	
				102	*		
0000CE	6C03 F150		00150	103	SKIP1	MD FPR0,MCONST-8(R3)	
0000D2	1222			104	SKIP2	LTR R2,R2	MULTIPLY 2*(-B)
0000D4	4780 F0DE		000DE	105	BZ	SKIP3	BY HALVING B TIMES
0000D8	2400			106	SKIP3A	HDR FPR0,FPR0	
0000DA	4620 F0D8		000D8	107	BCT	R2,SKIP3A	
0000DE	6000 F108		00108	108	SKIP3	STD FPR0,SIGN	ADD A TO CHARACTERISTIC
0000E2	5A00 F108		00108	109	A	R0,SIGN	
0000E6	5000 F108		00108	110	ST	R0,SIGN	
0000EA	2B00			111	SDR	FPR0,FPR0	NORMALIZE ANSWER JUST IN CASE
0000EC	6A00 F108		00108	112	AD	FPR0,SIGN	
				113	*		
				114	EXIT	RETURN (14,12)	RETURN
0000F0				115	EXIT	DS 0H	
0000F0	98EC D00C		0000C	116+	LM	14,12,12(13)	RESTORE THE REGISTERS
0000F4	07FE			117+	BR	14	RETURN
				118	*		
0000F6	2B00			119	SMALL	SDR FPR0,FPR0	IF X IS VERY LARGE NEGATIVE,
0000F8	47F0 F0F0		000F0	120	B	EXIT	GIVE 0 AS ANSWER
				121	*		
0000FC	58DD 0004		00004	122	ERROR	L R13,4(R13)	RESTORE FSA ADDR
000100	47FD 022C		0022C	123	B	FSAERR+24*4(R13)	PARAM GREATER 174.673
				124	*		
		001CC		125	FSAERR	EQU X'1CC'	
				126	*		
000104	00000000						
000108	0000000000000000			127	SIGN	DC D'0'	
		0010C		128	FIELDS	EQU SIGN+4	
000110	40B17217F7D1CF79			129	LOGE2	DC X'40B17217F7D1CF79'	LOG 2 (BE) TRUNCATED
000118	4010000000000000			130	ON016	DC X'4010000000000000'	
000120	41100000			131	ONE	DC X'41100000'	
000124	3D9E0F1E			132	C6	DC X'3D9E0F1E'	.1507368551403575E-3
000128	3E575D42BB7276D4			133	C5	DC X'3E575D42BB7276D4'	.1333073417706260E-2
000130	3F276553A5F9BC94			134	C4	DC X'3F276553A5F9BC94'	.9618117095313700E-2
000138	3FE35846A61AEE7A			135	C3	DC X'3FE35846A61AEE7A'	.5550410840231345E-1
000140	403D7F7BFF0289DE			136	C2	DC X'403D7F7BFF0289DE'	.2402265069563678
000148	40B17217F7D1CC79			137	C1	DC X'40B17217F7D1CC79'	.6931471805599346
000150	4080000000000000			138	C0A	DC X'4080000000000000'	.5 C0/2
000158	40F5257D152486CC			139	MCONST	DC X'40F5257D152486CC'	2*(-1/16)
000160	40EAC0C6E7DD2439			140		DC X'40EAC0C6E7DD2439'	2*(-2/16)
000168	40E0CCDEEC2A94E1			141		DC X'40E0CCDEEC2A94E1'	2*(-3/16)
000170	40D744FCCAD69D6B			142		DC X'40D744FCCAD69D6B'	2*(-4/16)
000178	40CE248C151F8481			143		DC X'40CE248C151F8481'	2*(-5/16)
000180	40C5672A115506DB			144		DC X'40C5672A115506DB'	2*(-6/16)
000188	40BD08A39F580C37			145		DC X'40BD08A39F580C37'	2*(-7/16)
000190	40B504F333F9DE65			146		DC X'40B504F333F9DE65'	2*(-8/16)
000198	40AD583EEA42A14B			147		DC X'40AD583EEA42A14B'	2*(-9/16)
0001A0	40A5FED6A9B15139			148		DC X'40A5FED6A9B15139'	2*(-10/16)
0001A8	409EF5326091A112			149		DC X'409EF5326091A112'	2*(-11/16)
0001B0	409837F0518DB8A9			150		DC X'409837F0518DB8A9'	2*(-12/16)
0001B8	4091C3D373AB11C3			151		DC X'4091C3D373AB11C3'	2*(-13/16)
0001C0	408B95C1E3EA8BD7			152		DC X'408B95C1E3EA8BD7'	2*(-14/16)
0001C8	4085AAC367CC487B			153		DC X'4085AAC367CC487B'	2*(-15/16)
0001D0	45000000			154	SCALER	DC X'45000000'	
0001D4	42AEAC4E			155	MAX	DC X'42AEAC4E'	174.6731
0001D8	C2B437DF			156	MIN	DC X'C2B437DF'	-180.2187
				157	*		
				158	*	REGISTER EQUATES	
				159	*		
				160		IEZREGS	
	00000			161	R0	EQU 0	01-IEZRE
	00001			162	R1	EQU 1	01-IEZRE
	00002			163	R2	EQU 2	01-IEZRE
	00003			164	R3	EQU 3	01-IEZRE
	00004			165	R4	EQU 4	01-IEZRE
	00005			166	R5	EQU 5	01-IEZRE
	00006			167	R6	EQU 6	01-IEZRE
	00007			168	R7	EQU 7	01-IEZRE
	00008			169	R8	EQU 8	01-IEZRE
	00009			170	R9	EQU 9	01-IEZRE
	0000A			171	R10	EQU 10	01-IEZRE
	0000B			172	R11	EQU 11	01-IEZRE
	0000C			173	R12	EQU 12	01-IEZRE
	0000D			174	R13	EQU 13	01-IEZRE
	0000E			175	R14	EQU 14	01-IEZRE
	0000F			176	R15	EQU 15	01-IEZRE
				177	*		
				178		END	

[illegible]

X390 3.1.04 2012/08/17 13.21



Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

LEX				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21	
52		USING	Ordinary	00000001	00000000	00001000	15	001D8	120	IHILEXPT,R15				

X390 3.1.04 2012/08/17 13.21

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHILEX    PROCSTEP: X390

Primary input: lines    1 to    154 of SYSD.ALGOLFRT.ASM(IHILEX)

SYSLIB library records read: 161

SYSUT1 work file size: 17974 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 12320 bytes

SYSLIN file records written: 11

TXA000I Return code 0, elapsed time 0.17 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHILEXPT 0001DC 4

**IHILLO**

**LEVEL**

**V2.M01**

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 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHILLO)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00170
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.21
				2 *		00002001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				4 *		00004001
				5 *	STATUS - LEVEL 2.1	00005001
				6 *		00006001
				7 *	FUNCTION/OPERATION -	00007001
				8 *	WRITE X = (16**P)*(2**-Q)*M	00008001
				9 *	Q BETWEEN 0 AND 3	00009001
				10 *	AND M BETWEEN 1/2 AND 1	00010001
				11 *	DEFINE A=1, B=0	00011001
				12 *	IF M IS > SQRT2/2, OTHERWISE A=1/2, B=1	00012001
				13 *	WRITE Z = (M-A)/(M+A), THEN	00013001
				14 *	LOG(X) = (4P-Q-B)*LOG(2) + LOG((1+Z)/(1-Z))	00014001
				15 *		00015001
				16 *	ENTRY POINT -	00016001
				17 *	IHILLO - LOG FUNCTION, LONG	00017001
				18 *	LA R1,PARMLIST	00018001
				19 *	BALR R14,R15	00019001
				20 *	DATA PASSED BY NAME	00020001
				21 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE	00021001
				22 *		00022001
				23 *	INPUT - N/A	00023001
				24 *		00024001
				25 *	OUTPUT - N/A	00025001
				26 *		00026001
				27 *	EXTERNAL ROUTINES - N/A	00027001
				28 *		00028001
				29 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0	00029001
				30 *		00030001
				31 *	EXIT - ERROR -	00031001
				32 *	IF ARGUMENT ZERO OR NEGATIVE GOTO ERROR ROUTINE VIA	00032001
				33 *	B FSAERR+25*4(R13)	00033001
				34 *		00034001
				35 *	TABLES/WORKAREAS - N/A	00035001
				36 *		00036001
000000		00000	00154	37	IHILLOGM CSECT	00037001
				38 *		00038001
				39	ENTRY IHILLO	00039001
				40 *		00040001
		00000		41 FPR0	EQU 0 RESULT REGISTER	00041001
		00002		42 FPR2	EQU 2 SCRATCH REGISTER	00042001
				43 *		00043001
				44 IHILLO	SAVE (14,12),,'IHILLOGM LEVEL 2.1 &SYSDATE &SYSTIME'	00044001
000000	47F0 F026		00026	45+IHILLO	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			46+	DC AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D3D3D6C7D4			47+	DC CL32'IHILLOGM LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			48+	DC CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	49+	STM 14,12,12(13) SAVE REGISTERS	01-SAVE
				50 *		00045001
		R:F 00000		51	USING IHILLOGM,R15	00046001
00002A	5810 1000		00000	52	L R1,0(,R1) OPTAIN ARGUMENT IN R0,R1	00047001
00002E	9801 1000		00000	53	LM R0,R1,0(R1)	00048001
000032	1220			54	LTR R2,R0	00049001
000034	47D0 F0D6		000D6	55	BNP ERROR	0 OR NEGATIVE, ERROR
000038	8C20 0018		00018	56	SRDL R2,24	CHAR IN LOW R2
00003C	8920 0002		00002	57	SLL R2,2	FIRST DIGIT IN HIGH R3
000040	4020 F0EA		000EA	58	STH R2,IPART+2	FLOAT 4*CHAR AND SAVE IT
000044	1B22			59	SR R2,R2	
000046	8D20 0004		00004	60	SLDL R2,4	FIRST DIGIT IN R2
00004A	4322 F0F0		000F0	61	IC R2, TABLE(R2)	NO OF LEADING ZEROS (=Q) IN R2
00004E	8D00 2000		00000	62	SLDL R0,0(R2)	
000052	9001 F0E0		000E0	63	STM R0,R1,BUFF	
000056	9240 F0E0		000E0	64	MVI BUFF,X'40'	M = FRACTION*2**Q IN CELL BUFF
00005A	4110 0008		00008	65	LA R1,8	
00005E	6800 F0E0		000E0	66	LD FPR0,BUFF	PICK UP M IN FPR0
000062	7900 F150		00150	67	CE FPR0,LIMIT	M > SQRT2/2, R1=8 ?
000066	4720 F070		00070	68	BH READY	YES, BRANCH
00006A	1B11			69	SR R1,R1	M < SQRT2/2, R1=0,
00006C	4120 2001		00001	70	LA R2,1(,R2)	CRANK R2 BY 1, Q+B IN R2
000070	2820			71 READY	LDR FPR2,FPR0	Z = (M-A)/(M+A), A = 1 OR 1/2
000072	6B00 F100		00100	72	SD FPR0,HALF	SUBTRACT A IN 2 STEPS TO PROTECT
000076	6B01 F0F8		000F8	73	SD FPR0,ZERO(R1)	THE LAST DIGIT
00007A	6A21 F100		00100	74	AD FPR2,HALF(R1)	M+A HAS ONLY 53BITS. NOT SERIOUS
00007E	2D02			75	DDR FPR0,FPR2	
000080	6000 F0E0		000E0	76	STD FPR0,BUFF	
000084	2C00			77	MDR FPR0,FPR0	COMPUTE LOG((1+Z)/(1-Z))
000086	2820			78	LDR FPR2,FPR0	BY CHEBYSHEV INTERPOLATION
000088	6C20 F110		00110	79	MD FPR2,C7	POLYNOMIAL (IN ZSQ) OF DEGREE 7
00008C	6A20 F118		00118	80	AD FPR2,C6	
000090	2C20			81	MDR FPR2,FPR0	
000092	6A20 F120		00120	82	AD FPR2,C5	
000096	2C20			83	MDR FPR2,FPR0	
000098	6A20 F128		00128	84	AD FPR2,C4	
00009C	2C20			85	MDR FPR2,FPR0	
00009E	6A20 F130		00130	86	AD FPR2,C3	
0000A2	2C20			87	MDR FPR2,FPR0	
0000A4	6A20 F138		00138	88	AD FPR2,C2	
0000A8	2C20			89	MDR FPR2,FPR0	
0000AA	6A20 F140		00140	90	AD FPR2,C1	
0000AE	2C20			91	MDR FPR2,FPR0	F = ZSQ*(C1+ZSQ*(C2+...+ZSQ*C7)..)
0000B0	6800 F0E0		000E0	92	LD FPR0,BUFF	LOG((1+Z)/(1-Z)) = Z*(2+F)
0000B4	2C20			93	MDR FPR2,FPR0	= Z+Z*Z*F
0000B6	2A20			94	ADR FPR2,FPR0	TO GAIN ACCURACY
0000B8	2A20			95	ADR FPR2,FPR0	
0000BA	6800 F0E8		000E8	96	LD FPR0,IPART	4*CHARACTERISTIC IN FPR0
0000BE	4120 2100		00100	97	LA R2,256(,R2)	ADD 4*(BASE CHARAC=64) TO Q+B

Loc	Object Code	Addr1	Addr2	Stmnt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000C2	4020 F0EA		000EA	98	STH	R2, IPART+2	00093001
0000C6	7B00 F0E8		000E8	99	SE	FPR0, IPART	00094001
0000CA	6C00 F148		00148	100	MD	FPR0, LOGE2	00095001
0000CE	2A02			101	ADR	FPR0, FPR2	00096001
				102	*		00097001
				103	RETURN	(14, 12)	00098001
0000D0	98EC D00C		0000C	104+	LM	14, 12, 12(13)	01-RETUR
0000D4	07FE			105+	BR	14	01-RETUR
				106	*		00099001
0000D6	47FD 0230		00230	107	ERROR	B FSAERR+25*4(R13)	00100001
				108	*		00101001
		001CC		109	FSAERR	EQU X'1CC'	00102001
				110	*		00103001
0000DA	000000000000						
0000E0	0000000000000000			111	BUFF	DC D'0'	00104001
0000E8	4600000000000000			112	IPART	DC X'4600000000000000'	00105001
				113	*		00106001
0000F0	0303020201010101			114	TABLE	DC X'0303020201010101'	00107001
0000F8	0000000000000000			115	ZERO	DC X'0000000000000000'	00108001
000100	4080000000000000			116	HALF	DC X'4080000000000000'	00109001
000108	4110000000000000			117		DC X'4110000000000000'	00110001
				118	*		00111001
000110	4025E9B17CA9B973			119	C7	DC X'4025E9B17CA9B973'	00112001
000118	40273337E26DBA7F			120	C6	DC X'40273337E26DBA7F'	00113001
000120	402E8CD32A425C06			121	C5	DC X'402E8CD32A425C06'	00114001
000128	4038E38A00083F6B			122	C4	DC X'4038E38A00083F6B'	00115001
000130	4049249251450212			123	C3	DC X'4049249251450212'	00116001
000138	40666666665EBAA3			124	C2	DC X'40666666665EBAA3'	00117001
000140	40AAAAAAAAAAD6C			125	C1	DC X'40AAAAAAAAAAD6C'	00118001
000148	40B17217F7D1CF7B			126	LOGE2	DC X'40B17217F7D1CF7B'	00119001
000150	40B504F3			127	LIMIT	DC X'40B504F3'	00120001
				128	*		00121001
				129	*	REGISTER EQUATES	00122001
				130	*		00123001
				131		IEZREGS	00124001
		00000		132+R0	EQU	0	01-IEZRE
		00001		133+R1	EQU	1	01-IEZRE
		00002		134+R2	EQU	2	01-IEZRE
		00003		135+R3	EQU	3	01-IEZRE
		00004		136+R4	EQU	4	01-IEZRE
		00005		137+R5	EQU	5	01-IEZRE
		00006		138+R6	EQU	6	01-IEZRE
		00007		139+R7	EQU	7	01-IEZRE
		00008		140+R8	EQU	8	01-IEZRE
		00009		141+R9	EQU	9	01-IEZRE
		0000A		142+R10	EQU	10	01-IEZRE
		0000B		143+R11	EQU	11	01-IEZRE
		0000C		144+R12	EQU	12	01-IEZRE
		0000D		145+R13	EQU	13	01-IEZRE
		0000E		146+R14	EQU	14	01-IEZRE
		0000F		147+R15	EQU	15	01-IEZRE
				148	*		00125001
				149		END	00126001



LLO		Symbol Cross Reference												PAGE				4					
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References				X390 3.1.04				2012/08/17 13.21							
BUFF	8	000000E0	00000001	D	D		111	63M	64M	66	76M	92											
C1	8	00000140	00000001	X	X		125	90															
C2	8	00000138	00000001	X	X		124	88															
C3	8	00000130	00000001	X	X		123	86															
C4	8	00000128	00000001	X	X		122	84															
C5	8	00000120	00000001	X	X		121	82															
C6	8	00000118	00000001	X	X		120	80															
C7	8	00000110	00000001	X	X		119	79															
ERROR	4	000000D6	00000001	I			107	55B															
FPR0	1	00000000		U			41	66M	67	71	72M	73M	75M	76	77M	78	81	83	85				
								87	89	91	92M	93	94	95	96M	99M	100M	101M					
FPR2	1	00000002		U			42	71M	74M	75	78M	79M	80M	81M	82M	83M	84M	85M	86M				
								87M	88M	89M	90M	91M	93M	94M	95M	101							
FSAERR	1	000001CC		U			109	107B															
HALF	8	00000100	00000001	X	X		116	72	74														
IHILLO	4	00000000	00000001	I			45	39															
IHILLOGM	1	00000000	00000001	J			37	51U															
IPART	8	000000E8	00000001	X	X		112	58M	96	98M	99												
LIMIT	4	00000150	00000001	X	X		127	67															
LOGE2	8	00000148	00000001	X	X		126	100															
READY	2	00000070	00000001	I			71	68B															
R0	1	00000000		U			132	53M	54	62M	63												
R1	1	00000001		U			133	52M	53M	63	65M	69M	73	74									
R13	1	0000000D		U			145	107															
R15	1	0000000F		U			147	51U															
R2	1	00000002		U			134	54M	56M	57M	58	59M	60M	61M	62	70M	97M	98					
TABLE	8	000000F0	00000001	X	X		114	61															
ZERO	8	000000F8	00000001	X	X		115	73															

X390 3.1.04 2012/08/17 13.21

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

LLO				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21	
51		USING	Ordinary	00000001	00000000	00001000	15	00150	100	IHILLOGM,R15				

X390 3.1.04 2012/08/17 13.21

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHILLO PROCSTEP: X390

Primary input: lines 1 to 126 of SYSD.ALGOLFRT.ASM(IHILLO)

SYSLIB library records read: 161

SYSUT1 work file size: 14842 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 10080 bytes

SYSLIN file records written: 9

TXA000I Return code 0, elapsed time 0.15 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHILLOGM 000154 4

**IHILOR**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHILOR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00174
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	CONVERT BINARY ARITHMETIC VALUE, FROM SECOND ACTUAL		00008001
				9 *	PARAMETER, TO ZONED DECIMAL FORM AND TRANSFER TO AN		00009001
				10 *	OUTPUT BUFFER		00010001
				11 *			00011001
				12 *	ENTRY POINTS -		00012001
				13 *	IHILOREL -	FROM GENERATED OBJECT MODULE	00013001
				14 *	LA	R1,PARMLIST	00014001
				15 *	BALR	R14,R15	00015001
				16 *	DATA	PASSED BY NAME	00016001
				17 *	IHILORAR -	FROM ARRAY MODULE IHIOAR	00017001
				18 *	LA	R7,DATA	00018001
				19 *	BALR	R14,R15	00019001
				20 *			00020001
				21 *	INPUT -	N/A	00021001
				22 *			00022001
				23 *	OUTPUT -	N/A	00023001
				24 *			00024001
				25 *	EXTERNAL ROUTINES -		00025001
				26 *	IHIOR -	EVALUATE DATA SET NUMBER	00026001
				27 *	-	OPEN DATASET	00027001
				28 *	-	CHANGE TO NEXT OUTPUT RECORD	00028001
				29 *	IHIFSA -	CNVIRD - CONVERT INTEGER TO REAL LONG	00029001
				30 *	IHIPTT -	POWER OF TEN TABLE LONG PREC	00030001
				31 *			00031001
				32 *	EXIT -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00032001
				33 *			00033001
				34 *	EXIT -	ERROR - TOO LONG RECORD NO 38	00034001
				35 *		BRANCH TO IHIFSA	00035001
				36 *	L	R13,IHIFSA	00036001
				37 *	B	FSAERR+XX*4(R13) XX ERROR NO	00037001
				38 *			00038001
				39 *	TABLES/WORK AREAS -	N/A	00039001
				40 *			00040001
000000		00000	00330	41	IHILOREA	CSECT	00041001
				42 *			00042001
				43	ENTRY	IHILOREL	00043001
				44	ENTRY	IHILORAR	00044001
				45 *			00045001
	R:5	00000		46	USING	DSTABLE,R5	00046001
		00000		47 *			00047001
				48	FPR0	EQU 0 FLOATING POINT NUMBER	00048001
				49 *			00049001
				50 *	R5	-> DSTABLE ENTRY	00050001
				51 *	R7	-> SOURCE	00051001
				52 *	R4	= CHARACTER POINTER	00052001
				53 *	R8	= BLANK COUNTER	00053001
				54 *	R2	EXPONENT > EIGHT	00054001
				55 *	R3	EXPONENT < EIGHT	00055001
				56 *	R9	DECIMAL EXPONENT	00056001
				57 *	R8	BLANK COUNTER	00057001
				58 *	R15	-> POWER TEN TABLE	00058001
				59 *			00059001
				60 *	DISPLACEMENTS IN	ADRLST IN IHIFSA	00060001
				61 *			00061001
		00000		62	CI	EQU 0 DISPLACEMENT FOR - IHIORCI	00062001
		00004		63	CL	EQU 4 IHIORCL	00063001
		00008		64	EV	EQU 8 IHIOREV	00064001
		0000C		65	NX	EQU 12 IHIORNX	00065001
		00010		66	OP	EQU 16 IHIOROP	00066001
		00014		67	OQ	EQU 20 IHIOROQ	00067001
				68 *			00068001
				69	IHILORAR	SAVE (14,12),,'IHILOREL LEVEL 2.1 &SYSDATE &SYSTIME'	00069001
000000	47F0	F026	00026	70+	IHILOREL	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			71+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D3D6D9C1D9			72+	DC	CL32'IHILOREL LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			73+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC	D00C	0000C	74+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				75 *			00070001
	R:F	00000		76	USING	IHILORAR,R15	00071001
00002A	18AD			77	LR	R10,R13 CHAIN SAVE AREAS	00072001
00002C	41D0	F298	00298	78	LA	R13,SAVEAREA	00073001
000030	50A0	D004	00004	79	ST	R10,4(,R13)	00074001
000034	50D0	A008	00008	80	ST	R13,8(,R10)	00075001
000038	41A0	F07C	0007C	81	LA	R10,COMMON	00076001
				82	DROP	R15	00077001
	R:A	0007C		83	USING	COMMON,R10	00078001
00003C	47F0	A00E	0008A	84	B	SOUFLPA	00079001
				85 *			00080001
				86	DROP	R10	00081001
				87 *			00082001
				88	IHILOREL	SAVE (14,12),,'IHILOREL LEVEL 2.1 &SYSDATE &SYSTIME'	00083001
000040	47F0	F026	00026	89+	IHILOREL	B 38(0,15) BRANCH AROUND ID	01-SAVE
000044	21			90+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000045	C9C8C9D3D6D9C5D3			91+	DC	CL32'IHILOREL LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000065	F1			92+	DC	CL1'1' IDENTIFIER	01-SAVE
000066	90EC	D00C	0000C	93+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				94 *			00084001
	R:F	00040		95	USING	IHILOREL,R15	00085001
00006A	18CD			96	LR	R12,R13 R12 -> FSA	00086001
00006C	41D0	F258	00298	97	LA	R13,SAVEAREA	00087001

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000070	50C0 D004		00004	98	ST	R12,4(,R13)	00088001
000074	50D0 C008		00008	99	ST	R13,8(,R12)	00089001
000078	41A0 F03C		0007C	100	LA	R10,COMMON	00090001
				101	DROP	R15	00091001
	R:A	0007C		102	USING	COMMON,R10	00092001
				103	*		00093001
				104	*	EVALUATE DATASET NUMBER (EVDSN)	00094001
				105	*		00095001
00007C	58F0 C11C		0011C	106	COMMON	L R15,IORLST(,R12)	00096001
000080	58F0 F008		00008	107	L	R15,EV(,R15)	00097001
000084	05EF			108	BALR	R14,R15	00098001
000086	5870 1004		00004	109	SOUFLP	L R7,4(,R1)	00099001
00008A	9630 501A	0001A		110	SOUFLPA	OI DSF,DS2+DS3	00100001
00008E	94FE 501A	0001A		111	NI	DSF,255-DS7	00101001
000092	1277			112	LTR	R7,R7	00102001
000094	4720 A036		000B2	113	BP	REAL1	00103001
				114	*		00104001
				115	*	CALL CONVERSION ROUTINE (LOADED IN FSA)	00105001
				116	*		00106001
000098	90ED D008		00008	117	STM	R14,R13,8(R13)	00107001
00009C	182D			118	LR	R2,R13	00108001
00009E	58E0 7000		00000	119	L	R14,0(,R7)	00109001
0000A2	417C 0120		00120	120	LA	R7,ACNVIRD(R12)	00110001
0000A6	18DC			121	LR	R13,R12	00111001
0000A8	0587			122	BALR	R8,R7	00112001
0000AA	98ED 2008		00008	123	LM	R14,R13,8(R2)	00113001
0000AE	47F0 A03A		000B6	124	B	REAL1A	00114001
				125	*		00115001
0000B2	6800 7000		00000	126	REAL1	LD FPR0,0(,R7)	00116001
0000B6	9180 501A	0001A		127	REAL1A	TM DSF,DS0	00117001
0000BA	4710 A050		000CC	128	BO	NOCLO	00118001
0000BE	9602 501A	0001A		129	OI	DSF,DS6	00119001
0000C2	58F0 C11C		0011C	130	L	R15,IORLST(,R12)	00120001
0000C6	58F0 F010		00010	131	L	R15,OP(,R15)	00121001
0000CA	05EF			132	BALR	R14,R15	00122001
0000CC	5840 5004		00004	133	NOCLO	L R4,R	00123001
0000D0	4180 4016		00016	134	LA	R8,22(,R4)	00124001
0000D4	5980 5008		00008	135	C	R8,RE	00125001
0000D8	47D0 A094		00110	136	BNH	NONEXREC	00126001
0000DC	5880 5008		00008	137	L	R8,RE	00127001
0000E0	1B84			138	SR	R8,R4	00128001
0000E2	47D0 A076		000F2	139	BNP	CALLNXT	00129001
0000E6	9240 4000	00000		140	BLANKS	MVI 0(R4),C' '	00130001
0000EA	4140 4001		00001	141	LA	R4,1(,R4)	00131001
0000EE	4680 A06A		000E6	142	BCT	R8,BLANKS	00132001
0000F2	58F0 C11C		0011C	143	CALLNXT	L R15,IORLST(,R12)	00133001
0000F6	58F0 F00C		0000C	144	L	R15,NX(,R15)	00134001
0000FA	05EF			145	BALR	R14,R15	00135001
0000FC	5840 5004		00004	146	L	R4,R	00136001
000100	4180 4016		00016	147	LA	R8,22(,R4)	00137001
000104	5980 5008		00008	148	C	R8,RE	00138001
000108	4720 A212		0028E	149	BH	ORLERR	00139001
00010C	9610 501A	0001A		150	OI	DSF,DS3	00140001
000110	4190 0010		00010	151	NONEXREC	LA R9,16	00141001
000114	2200			152	LTDR	FPR0,FPR0	00142001
000116	4770 A0B0		0012C	153	BNZ	NOT0	00143001
00011A	9240 4000	00000		154	MVI	0(R4),C' '	00144001
00011E	D214 4001	4000	00001	155	MVC	1(21,R4),0(R4)	00145001
000124	92F0 4001		00001	156	MVI	1(R4),C'0'	00146001
000128	47F0 A1B6		00232	157	B	TERMIN	00147001
				158	*		00148001
00012C	924E 4000	00000		159	NOT0	MVI 0(R4),C'+'	00149001
000130	4720 A0BE		0013A	160	BP	EXPLOOP	00150001
000134	9260 4000	00000		161	MVI	0(R4),C'-'	00151001
000138	2300			162	LCDR	FPR0,FPR0	00152001
00013A	6000 A27C		002F8	163	EXPLOOP	STD FPR0,CHAR	00153001
00013E	1B33			164	SR	R3,R3	00154001
000140	4330 A27C		002F8	165	IC	R3,CHAR	00155001
000144	9200 A29C	00318		166	MVI	SE,0	00156001
000148	5B30 A268		002E4	167	S	R3,KF78	00157001
00014C	4720 A0DE		0015A	168	BP	EXPLOAA	00158001
000150	4780 A148		001C4	169	BZ	EXP0	00159001
000154	9280 A29C	00318		170	MVI	SE,X'80'	00160001
000158	1333			171	LCR	R3,R3	00161001
00015A	4C30 A26C		002E8	172	EXPLOAA	MH R3,LOG2	00162001
00015E	4A30 A26E		002EA	173	AH	R3,ROUND	00163001
000162	8830 000E		0000E	174	SRL	R3,14	00164001
000166	5930 A268		002E4	175	C	R3,KF78	00165001
00016A	47D0 A0F6		00172	176	BNH	EXPLOBB	00166001
00016E	5830 A268		002E4	177	L	R3,KF78	00167001
000172	9180 A29C	00318		178	EXPLOBB	TM SE,X'80'	00168001
000176	58F0 A218		00294	179	L	R15,VPTTAB	00169001
00017A	4780 A108		00184	180	BZ	EXPLOCC	00170001
00017E	1B93			181	SR	R9,R3	00171001
000180	47F0 A10E		0018A	182	B	EXPLODD	00172001
				183	*		00173001
000184	41F0 F080		00080	184	EXPLOCC	LA R15,128(,R15)	00174001
000188	1A93			185	AR	R9,R3	00175001
00018A	1823			186	EXPLODD	LR R2,R3	00176001
00018C	1B33			187	SR	R3,R3	00177001
00018E	8E20 0003	00003		188	SRDA	R2,3	00178001
000192	8B20 0003	00003		189	SLA	R2,3	00179001
000196	4780 A136		001B2	190	TESTEXP1	BZ EXP1LS8	00180001
00019A	5920 A264		002E0	191	C	R2,KF72	00181001
00019E	4740 A132		001AE	192	BL	EXP1LS8A	00182001
0001A2	6C00 F080		00080	193	MD	FPR0,128(,R15)	00183001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0001A6	5B20 A264		002E0	194	S	R2,KF72	00184001
0001AA	47F0 A11A		00196	195	B	TESTEXP1	00185001
				196	*		00186001
0001AE	6C02 F038		00038	197	EXP1LS8A	MD FPR0,56(R2,R15)	00187001
0001B2	8830 001A		0001A	198	EXP1LS8	SRL R3,26	00188001
0001B6	1233			199	LTR	R3,R3	00189001
0001B8	4780 A0BE		0013A	200	BZ	EXPLOOP	00190001
0001BC	6C03 F000		00000	201	MD	FPR0,0(R3,R15)	00191001
0001C0	47F0 A0BE		0013A	202	B	EXPLOOP	00192001
				203	*		00193001
0001C4	6900 A294		00310	204	EXP0	CD FPR0,TENP16	00194001
0001C8	4780 A1F8		00274	205	BNL	DIG17	00195001
0001CC	9200 A27C	002F8		206	EXP0AA	MVI CHAR,0	00196001
0001D0	9823 A27C		002F8	207	LM	R2,R3,CHAR	00197001
0001D4	5D20 A270		002EC	208	D	R2,TENP9I	00198001
				209	*		00199001
				210	*	TRANSFORM NUMBER TO DECIMAL FORM	00200001
				211	*	EDIT OUTPUT NUMBER IN I/O BUFFER	00201001
				212	*		00202001
0001D8	4E30 A274		002F0	213	CVD	R3,BUFF	00203001
0001DC	F384 4001 A277	00001	002F3	214	UNPK	1(9,R4),BUFF+3(5)	00204001
0001E2	96F0 4009	00009		215	OI	9(R4),X'F0'	00205001
0001E6	4E20 A274		002F0	216	CVD	R2,BUFF	00206001
0001EA	F384 400A A277	0000A	002F3	217	UNPK	10(9,R4),BUFF+3(5)	00207001
0001F0	96F0 4012	00012		218	OI	18(R4),X'F0'	00208001
0001F4	95F0 4002	00002		219	CLI	2(R4),C'0'	00209001
0001F8	4770 A188		00204	220	BNE	TRANSAA	00210001
0001FC	0690			221	BCTR	R9,0	00211001
0001FE	D20F 4002 4003	00002	00003	222	MVC	2(16,R4),3(R4)	00212001
000204	D200 4001 4002	00001	00002	223	TRANSAA	MVC 1(1,R4),2(R4)	00213001
00020A	924B 4002	00002		224	MVI	2(R4),C'.'	00214001
00020E	927D 4012	00012		225	MVI	18(R4),C''''	00215001
000212	4E90 A274		002F0	226	DECEXP	CVD R9,BUFF	00216001
000216	F321 4013 A27A	00013	002F6	227	UNPK	19(3,R4),BUFF+6(2)	00217001
00021C	1299			228	LTR	R9,R9	00218001
00021E	47B0 A1AE		0022A	229	BNM	DECEXPAA	00219001
000222	9260 4013	00013		230	MVI	19(R4),C'-'	00220001
000226	47F0 A1B2		0022E	231	B	DECEXPBB	00221001
				232	*		00222001
00022A	924E 4013	00013		233	DECEXPAA	MVI 19(R4),C'+'	00223001
00022E	96F0 4015	00015		234	DECEXPBB	OI 21(R4),X'F0'	00224001
				235	*		00225001
				236	*	TERMINATION ROUTINE INSERT BLANKS	00226001
				237	*	IF RECORD END CALL NEXTREC	00227001
				238	*		00228001
000232	4140 4016		00016	239	TERMIN	LA R4,22(,R4)	00229001
000236	1B88			240	SR	R8,R8	00230001
000238	4380 5018		00018	241	IC	R8,K	00231001
00023C	5940 5008		00008	242	TERMINAA	C R4,RE	00232001
000240	4780 A1EA		00266	243	BE	RECEND	00233001
000244	9240 4000	00000		244	MVI	0(R4),C'.'	00234001
000248	4140 4001	00001		245	LA	R4,1(,R4)	00235001
00024C	4680 A1C0	0023C		246	BCT	R8,TERMINAA	00236001
000250	5940 5008	00008		247	C	R4,RE	00237001
000254	4780 A1EA	00266		248	BE	RECEND	00238001
000258	5040 5004	00004		249	ST	R4,R	00239001
00025C	58D0 A220		0029C	250	TERMINBB	L R13,SAVEAREA+4	00240001
				251	*		00241001
				252		RETURN (14,12)	00242001
000260	98EC D00C		0000C	253+	LM	14,12,12(13)	01-RETUR
000264	07FE			254+	BR	14	01-RETUR
				255	*		00243001
000266	58F0 C11C		0011C	256	RECEND	L R15,IORLST(,R12)	00244001
00026A	58F0 F00C		0000C	257	L	R15,NX(,R15)	00245001
00026E	05EF			258	BALR	R14,R15	00246001
000270	47F0 A1E0		0025C	259	B	TERMINBB	00247001
				260	*		00248001
				261	*	NUMBER >= 10**16	00249001
				262	*		00250001
000274	6E00 A284		00300	263	DIG17	AW FPR0,FIVE	00251001
000278	6000 A27C		002F8	264	STD	FPR0,CHAR	00252001
00027C	6900 A28C		00308	265	CD	FPR0,TWOP56B	00253001
000280	4740 A150		001CC	266	BL	EXP0AA	00254001
000284	D211 4001 A29D	00001	00319	267	MVC	1(18,R4),TWOP56	00255001
00028A	47F0 A196		00212	268	B	DECEXP	00256001
				269	*		00257001
00028E	18DC			270	ORLERR	LR R13,R12	00258001
000290	47FC 0264		00264	271	B	FSAERR+38*4(R12)	00259001
				272	*		00260001
000294	00000000			273	VPTTAB	DC V(IHIPTTAB)	00261001
				274	*		00262001
		00120		275	ACNVIRD	EQU X'120'	00263001
				276	*		00264001
				277	*	CONSTANTS AND STORAGE	00265001
				278	*		00266001
000298	0000000000000000			279	SAVEAREA	DC 18F'0'	00267001
				280	*		00268001
0002E0	00000048			281	KF72	DC F'72'	00269001
0002E4	0000004E			282	KF78	DC F'78'	00270001
0002E8	4D10			283	LOG2	DC H'19728'	00271001
0002EA	2000			284	ROUND	DC H'8192'	00272001
0002EC	3B9ACA00			285	TENP9I	DC F'1000000000'	00273001
0002F0	0000000000000000			286	BUFF	DC D'0'	00274001
0002F8	0000000000000000			287	CHAR	DC D'0'	00275001
000300	4E00000000000005			288	FIVE	DC X'4E00000000000005'	00276001
000308	4F10000000000000			289	TWOP56B	DC X'4F10000000000000'	00277001

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000310	4E2386F26FC10000			290	TENP16	DC DE16'1'	00278001
000318	00			291	SE	DC X'00'	00279001
000319	F74BF2F0F5F7F5F9			292	TWOP56	DC C'7.205759403792794'''	00280001
				293	*		00281001
000330				294		LTORG	00282001
				295	*		00283001
				296		DSTABLE DSECT=YES	00284001
000000		00000	00024	297	+DSTABLE	DSECT	01-DSTAB
				298	+	*	01-DSTAB
000000	00000000			299	+ADCB	DC F'0'	01-DSTAB
000004	00000000			300	+R	DC F'0'	01-DSTAB
000008	00000000			301	+RE	DC F'0'	01-DSTAB
00000C	00000000			302	+NBB	DC F'0'	01-DSTAB
000010	00000000			303	+BB	DC F'0'	01-DSTAB
000014	0001			304	+S	DC H'1'	01-DSTAB
000016	0050			305	+P	DC H'80'	01-DSTAB
000018	02			306	+K	DC X'02'	01-DSTAB
000019	00			307	+Q	DC X'00'	01-DSTAB
00001A	0000			308	+DSF	DC H'00'	01-DSTAB
				309	+	*	01-DSTAB
				310	+		01-DSTAB
				311	+	DATASET FLAGS - DSF	01-DSTAB
				312	+DS0	EQU X'80'	01-DSTAB
000080				313	+DS1	EQU X'40'	01-DSTAB
000040				314	+DS2	EQU X'20'	01-DSTAB
000020				315	+DS3	EQU X'10'	01-DSTAB
000010				316	+DS4	EQU X'08'	01-DSTAB
000008				317	+DS5	EQU X'04'	01-DSTAB
000004				318	+DS6	EQU X'02'	01-DSTAB
000002				319	+DS7	EQU X'01'	01-DSTAB
000001				320	+	*	01-DSTAB
				321	+		01-DSTAB
				322	+	DATASET FLAGS - DSF+1	01-DSTAB
				323	+DS8	EQU X'80'	01-DSTAB
000080				324	+DS9	EQU X'40'	01-DSTAB
000040				325	+DS10	EQU X'20'	01-DSTAB
000020				326	+DS11	EQU X'10'	01-DSTAB
000010				327	+DSEOD	EQU X'08'	01-DSTAB
000008				328	+DSIOERR	EQU X'04'	01-DSTAB
000004				329	+DS14	EQU X'02'	01-DSTAB
000002				330	+DS15	EQU X'01'	01-DSTAB
000001				331	+	*	01-DSTAB
00001C	00000000			332	+NOTEADR	DC F'0'	01-DSTAB
000020	0000			333	+BL	DC H'0'	01-DSTAB
000022	0000			334	+	DC H'0'	01-DSTAB
				335	+	*	01-DSTAB
				336	+DSTABLE	EQU *-DSTABLE	01-DSTAB
				337	+	*	01-DSTAB
				338	+	*	00285001
000000				339	FAS	DSECT	00286001
				340	+	*	00287001
				341		COPY FSAREA	00288001
				342	+	*	00001001
				343	+		00002001
				344	+	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				345	+		00004001
				346	+	STATUS - LEVEL 2.1	00005001
				347	+	*****	00006001
				348	+	*	00007001
				349	+		00008001
				350	+	COMMON DATA AREA	00009001
				351	+	*	00010001
				352	+	FSAREA	00011001
				353	+	*****	00012001
				354	+	*	00013001
				355	+		00014001
				356	+	DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00015001
				357	+	MODULES DURING THE EXECUTION	00016001
				358	+		00017001
				359	+	ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00018001
				360	+	SUBROUTINES) BY R12	00019001
				361	+	FSAREA	00020001
				362	+	*	00021001
				363	+		00022001
				364	+	SAVE AREAS	00023001
000000				365	+	*	00024001
				366	+	DS 18F	00025001
000048				367	+	ASAVE *-FSAREA	00026001
				368	+	DS 18F	00027001
				369	+		00028001
				370	+	MISCELLANEOUS WORK AREAS AND CONSTANTS	00029001
				371	+	*	00030001
000090				372	+	FSAREA	00031001
				373	+	D	00032001
000098				374	+	ASTLOC *-FSAREA	00033001
000098	00000090			375	+	DC A(FSAREA+FCTVALST)	00034001
				376	+	FSAREA	00035001
00009C				377	+	BRRST	00036001
				378	+	DS F	00037001
00009C				379	+	PROLREG *-FSAREA	00038001
				380	+	DS 2A	00039001
0000A0				381	+		00040001
				382	+	HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00041001
0000A8				383	+	DS 0H	00042001
0000A8	00			384	+	DC X'00'	00043001
				385	+	PROLPBN *-FSAREA	00044001
						STORAGE FOR CALLED PBN	

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17	13.21
0000A9	00			386=	DC	X'00'			00045001
		000AA		387=EIGHT	EQU	*-FSAREA	CONST FOR REDUCING RAS		00046001
0000AA	0008			388=	DC	H'8'			00047001
				389=*					00048001
0000AC				390=	DS	0F			00049001
		000AC		391=ADSTAB	EQU	*-FSAREA	ADDR OF DSTABLE		00050001
0000AC				392=	DS	A	IN THE OBJECT PROGRAM		00051001
		000B0		393=ANOTTAB	EQU	*-FSAREA	ADDR OF NOTE TABLE		00052001
0000B0				394=	DS	A	(INSERTED BY THE OPEN ROUTINE)		00053001
				395=*					00054001
		000B4		396=IHIFSAST	EQU	*			00055001
		000B4		397=PGOPSW	EQU	*-FSAREA	PROGRAM CHECK OLD PSW		00056001
0000B4				398=	DS	2F			00057001
		000BC		399=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR		00058001
0000BC	00000000			400=	DC	F'0'			00059001
		000C0		401=SCRC5	EQU	*-FSAREA	SEMICOLON NUMBER		00060001
0000C0				402=	DS	H			00061001
		000C2		403=DTSW	EQU	*-FSAREA	OPTION SWITCHES		00062001
		000C2		404=OPTSW	EQU	DTSW			00063001
0000C2	00			405=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20		00064001
		000C3		406=FSAERCD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE		00065001
0000C3				407=	DS	C			00066001
				408=*					00067001
				409=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER			00068001
				410=*					00069001
0000C4				411=	DS	0F			00070001
		000C4		412=IHIFSARS	EQU	*			00071001
		000C4		413=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8		00072001
0000C4				414=	DS	F			00073001
		000C8		415=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP		00074001
0000C8				416=	DS	F			00075001
		000CC		417=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8		00076001
0000CC				418=	DS	F			00077001
		000D0		419=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM		00078001
0000D0				420=	DS	F			00079001
				421=*					00080001
				422=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES			00081001
				423=*					00082001
0000D4				424=BRLIST	DS	0F			00083001
		000D4		425=CAP1	EQU	*-FSAREA	FIRST PART CAPS		00084001
0000D4	4700 0000		00000	426=	NOP	0			00085001
		000D8		427=CAP2	EQU	*-FSAREA	SECOND PART CAPS		00086001
0000D8	4700 0000		00000	428=	NOP	0			00087001
		000DC		429=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY		00088001
		000DC		430=PROLOGFP	EQU	PROLOGP			00089001
0000DC	4700 0000		00000	431=	NOP	0			00090001
		000E0		432=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY		00091001
0000E0	4700 0000		00000	433=	NOP	0			00092001
		000E4		434=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM		00093001
0000E4	4700 0000		00000	435=	NOP	0			00094001
		000E8		436=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY		00095001
0000E8	4700 0000		00000	437=	NOP	0			00096001
		000EC		438=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY		00097001
0000EC	4700 0000		00000	439=	NOP	0			00098001
		000F0		440=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3		00099001
0000F0	4700 0000		00000	441=	NOP	0			00100001
		000F4		442=CSWE1	EQU	*-FSAREA	FIRST PART CSWES		00101001
0000F4	4700 0000		00000	443=	NOP	0			00102001
		000F8		444=CSWE2	EQU	*-FSAREA	SECOND PART CSWES		00103001
0000F8	4700 0000		00000	445=	NOP	0			00104001
		000FC		446=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE		00105001
0000FC	4700 0000		00000	447=	NOP	0			00106001
		00100		448=TRACE	EQU	*-FSAREA			00107001
000100	D200 0000 0000	00000	00000	449=	MVC	0(0),0			00108001
000106	4700 0000		00000	450=	NOP	0			00109001
00010A	4700 0000		00000	451=	NOP	0			00110001
		0010E		452=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT		00111001
00010E	4700 0000		00000	453=	NOP	0			00112001
		00112		454=BCR	EQU	*-FSAREA			00113001
000112	0700			455=	BCR	0,0	VARIABLE CONDITIONAL BRANCH		00114001
		00114		456=GETMSTO	EQU	*-FSAREA			00115001
000114	4700 0000		00000	457=	NOP	0			00116001
				458=*					00117001
		00118		459=VALUCALL	EQU	*-FSAREA			00118001
000118	4700 0000		00000	460=	NOP	0			00119001
		0011C		461=IORLST	EQU	*-FSAREA			00120001
00011C	4700 0000		00000	462=	NOP	0			00121001
				463=*					00122001
		001CC		464=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST		00123001
				465=*					00124001
				466=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA			00125001
				467=*					00126001
		0020C		468=OUTOFB	EQU	FSAERR+4*16			00127001
00218				469=NUMBIND	EQU	FSAERR+4*19			00128001
00208				470=ARRAYBD	EQU	FSAERR+4*15			00129001
0026C				471=ERROR40	EQU	FSAERR+4*40			00130001
00224				472=OERR22	EQU	FSAERR+4*22			00131001
00210				473=ENDLES	EQU	FSAERR+4*17			00132001
00220				474=OERR21	EQU	FSAERR+4*21			00133001
				475=*					00134001
				476 *					00289001
				477 *		REGISTER EQUATES			00290001
				478 *					00291001
				479		IEZREGS			00292001
		00000		480+R0	EQU	0	01-IEZRE		01-IEZRE
		00001		481+R1	EQU	1	01-IEZRE		01-IEZRE

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	
		00002		482+R2	EQU	2	01-IEZRE
		00003		483+R3	EQU	3	01-IEZRE
		00004		484+R4	EQU	4	01-IEZRE
		00005		485+R5	EQU	5	01-IEZRE
		00006		486+R6	EQU	6	01-IEZRE
		00007		487+R7	EQU	7	01-IEZRE
		00008		488+R8	EQU	8	01-IEZRE
		00009		489+R9	EQU	9	01-IEZRE
		0000A		490+R10	EQU	10	01-IEZRE
		0000B		491+R11	EQU	11	01-IEZRE
		0000C		492+R12	EQU	12	01-IEZRE
		0000D		493+R13	EQU	13	01-IEZRE
		0000E		494+R14	EQU	14	01-IEZRE
		0000F		495+R15	EQU	15	01-IEZRE
				496 *			00293001
				497	END		00294001

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LOR	Symbol Cross Reference								PAGE	8
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17 13.21
ACNVIRD	1	00000120		U			275	120		
BLANKS	4	000000E6	00000001	I			140	142B		
BRRST	1	0000009C		U			375	376		
BUFF	8	000002F0	00000001	D	D		286	213M 214 216M 217 226M 227		
CALLNXT	4	000000F2	00000001	I			143	139B		
CHAR	8	000002F8	00000001	D	D		287	163M 165 206M 207 264M		
COMMON	4	0000007C	00000001	I			106	81 83U 100 102U		
DECEXP	4	00000212	00000001	I			226	268B		
DECEXPAA	4	0000022A	00000001	I			233	229B		
DECEXPBB	4	0000022E	00000001	I			234	231B		
DIG17	4	00000274	00000001	I			263	205B		
DSF	2	0000001A	FFFFFFFF	H	H		308	110M 111M 127 129M 150M		
DSTABLE	1	00000000	FFFFFFFF	J			297	46U 336		
DS0	1	00000080		U			312	127		
DS2	1	00000020		U			314	110		
DS3	1	00000010		U			315	110 150		
DS6	1	00000002		U			318	129		
DS7	1	00000001		U			319	111		
DTSW	1	000000C2		U			403	404		
EV	1	00000008		U			64	107		
EXPLOAA	4	0000015A	00000001	I			172	168B		
EXPLOBB	4	00000172	00000001	I			178	176B		
EXPLOCC	4	00000184	00000001	I			184	180B		
EXPLODD	2	0000018A	00000001	I			186	182B		
EXPLOOP	4	0000013A	00000001	I			163	160B 200B 202B		
EXP0	4	000001C4	00000001	I			204	169B		
EXP0AA	4	000001CC	00000001	I			206	266B		
EXP1LS8	4	000001B2	00000001	I			198	190B		
EXP1LS8A	4	000001AE	00000001	I			197	192B		
FCTVALST	1	00000090		U			371	374		
FIVE	8	00000300	00000001	X	X		288	263		
FPR0	1	00000000		U			48	126M 152M 162M 163 193M 197M 201M 204 263M 264 265		
FSAERR	1	000001CC		U			464	271B 468 469 470 471 472 473 474		
FSAREA	1	00000000	FFFFFFFFE	U			361	366 371 373 374 375 378 385 387 391 393 397 399		
								401 403 406 413 415 417 419 425 427 429 432 434		
								436 438 440 442 444 446 448 452 454 456 459 461		
IHILORAR	4	00000000	00000001	I			70	44 76U		
IHILOREL	4	00000040	00000001	I			89	43 95U		
IHIPTTAB	1	00000000	00000002	T			273	273		
IORLST	1	0000011C		U			461	106 130 143 256		
K	1	00000018	FFFFFFFF	X	X		306	241		
KF72	4	000002E0	00000001	F	F		281	191 194		
KF78	4	000002E4	00000001	F	F		282	167 175 177		
LOG2	2	000002E8	00000001	H	H		283	172		
NOCLO	4	000000CC	00000001	I			133	128B		
NONEXREC	4	00000110	00000001	I			151	136B		
NOT0	4	0000012C	00000001	I			159	153B		
NX	1	0000000C		U			65	144 257		
OP	1	00000010		U			66	131		
ORLERR	2	0000028E	00000001	I			270	149B		
PROLOGP	1	000000DC		U			429	430		
R	4	00000004	FFFFFFFF	F	F		300	133 146 249M		
RE	4	00000008	FFFFFFFF	F	F		301	135 137 148 242 247		
REAL1	4	000000B2	00000001	I			126	113B		
REAL1A	4	000000B6	00000001	I			127	124B		
RECEND	4	00000266	00000001	I			256	243B 248B		
ROUND	2	000002EA	00000001	H	H		284	173		
R1	1	00000001		U			481	109		
R10	1	0000000A		U			490	77M 79 80 81M 83U 86D 100M 102U		
R12	1	0000000C		U			492	96M 98 99 106 120 121 130 143 256 270 271		
R13	1	0000000D		U			493	77 78M 79 80 96 97M 98 99 117 118 121M 123M		
								250M 270M		
R14	1	0000000E		U			494	108M 117 119M 123M 132M 145M 258M		
R15	1	0000000F		U			495	76U 82D 95U 101D 106M 107M 108B 130M 131M 132B 143M 144M		
								145B 179M 184M 193 197 201 256M 257M 258B		
R2	1	00000002		U			482	118M 123 186M 188M 189M 191 194M 197 207M 208M 216		
R3	1	00000003		U			483	164M 165M 167M 171M 172M 173M 174M 175 177M 181 185 186		
								187M 198M 199M 201 207M 213		
R4	1	00000004		U			484	133M 134 138 140 141M 146M 147 154 155 156 159 161		
								214 215 217 218 219 222 223 224 225 227 230 233		
								234 239M 242 244 245M 247 249 267		
R5	1	00000005		U			485	46U		
R7	1	00000007		U			487	109M 112M 119 120M 122B 126		
R8	1	00000008		U			488	122M 134M 135 137M 138M 142M 147M 148 240M 241M 246M		
R9	1	00000009		U			489	151M 181M 185M 221M 226 228M		
SAVEAREA	4	00000298	00000001	F	F		279	78 97 250		
SE	1	00000318	00000001	X	X		291	166M 170M 178		
SOUFLPA	4	0000008A	00000001	I			110	84B		
TENP16	8	00000310	00000001	D	D		290	204		
TENP9I	4	000002EC	00000001	F	F		285	208		
TERMIN	4	00000232	00000001	I			239	157B		
TERMINAA	4	0000023C	00000001	I			242	246B		
TERMINBB	4	0000025C	00000001	I			250	259B		
TESTEXP1	4	00000196	00000001	I			190	195B		
TRANSAA	6	00000204	00000001	I			223	220B		
TWOP56	18	00000319	00000001	C	C		292	267		
TWOP56B	8	00000308	00000001	X	X		289	265		
VPPTAB	4	00000294	00000001	V	V		273	179		

[illegible]



Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.21
DSTABLE	00000024	FFFFFFFF	297	4	DSTABLE			
FAS	00000120	FFFFFFFE	339		PRIMARY INPUT			

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		DSTABLE	FSAREA
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
46		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001A	249	DSTABLE,R5			
76		USING	Ordinary	00000001	00000000	00001000	15	00298	81	IHILORAR,R15			
82		DROP					15			R15			
83		USING	Ordinary	00000001	0000007C	00001000	10	0000E	84	COMMON,R10			
86		DROP					10			R10			
95		USING	Ordinary	00000001	00000040	00001000	15	00258	100	IHILOREL,R15			
101		DROP					15			R15			
102		USING	Ordinary	00000001	0000007C	00001000	10	0029D	268	COMMON,R10			

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHILOR      PROCSTEP: X390

Primary input: lines      1 to      294 of SYSD.ALGOLFRT.ASM(IHILOR)

SYSLIB library records read: 362

SYSUT1 work file size: 46496 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 23520 bytes

SYSLIN file records written: 19

TXA000I Return code 0, elapsed time 0.30 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHILOREA 00032B 5

**IHILSC**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHILSC)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00178
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	1. DIVIDE MAGNITUDE OF ARG BY PI/4 TO FIND OCTANT AND		00008001
				9 *	FRACTION		00009001
				10 *	2. IF COSINE ADD 2 TO OCTANT NUMBER		00010001
				11 *	IF SINE FOR NEGATIVE ARG, ADD 4 TO OCTANT NUMBER		00011001
				12 *	3. COMPUTE SINE OR COSINE OF FRACTION*PI/4 DEPENDING ON		00012001
				13 *	THE OCTANT		00013001
				14 *	4. IF OCTANT NUMBER IS FOR LOWER PLANE MAKE SIGN MINUS		00014001
				15 *			00015001
				16 *	ENTRY POINTS -		00016001
				17 *	IHILSCC - COSINE FUNCTION, LONG		00017001
				18 *	IHILSCS - SINE FUNCTION, LONG		00018001
				19 *	LA R1,PARMLIST		00019001
				20 *	BALR R14,R15		00020001
				21 *	DATA PASSED BY NAME		00021001
				22 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00022001
				23 *			00023001
				24 *	INPUT -	N/A	00024001
				25 *			00025001
				26 *	OUTPUT -	N/A	00026001
				27 *			00027001
				28 *	EXTERNAL ROUTINES -	N/A	00028001
				29 *			00029001
				30 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0		00030001
				31 *			00031001
				32 *	EXIT - ERROR -		00032001
				33 *	IF ABS(ARG) < PI*2**50 GOTO ERROR ROUTINE VIA		00033001
				34 *	B FSAERR+27*4(R13)		00034001
				35 *			00035001
				36 *	TABLES/WORKAREAS -	N/A	00036001
				37 *			00037001
000000		00000	001B0	38	IHILSCSN	CSECT	00038001
				39 *			00039001
				40	ENTRY	IHILSCC	00040001
				41	ENTRY	IHILSCS	00041001
				42 *			00042001
		00000		43	FPR0	EQU 0 RESULT REGISTER	00043001
		00002		44	FPR2	EQU 2 SCRATCH REGISTERS	00044001
		00004		45	FPR4	EQU 4	00045001
				46 *			00046001
				47	IHILSCC	SAVE (14,12),, 'IHILSCC LEVEL 2.1 &SYSDATE &SYSTIME'	00047001
000000	47F0 F026		00026	48+	IHILSCC	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			49+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D3E2C3C340			50+	DC	CL32 'IHILSCC LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			51+	DC	CL1 '1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	52+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				53 *			00048001
		R:F 00000		54	USING	IHILSCC,R15	00049001
00002A	41A0 F07A		0007A	55	LA	R10,COMMON	00050001
				56	DROP	R15	00051001
		R:A 0007A		57	USING	COMMON,R10	00052001
00002E	4100 0002		00002	58	LA	R0,2 OCTANT CRANK OF 2 TO R0	00053001
000032	5810 1000		00000	59	L	R1,0(,R1) R1 -> ARGUMENT ADDR	00054001
000036	47F0 A000		0007A	60	B	COMMON	00055001
				61 *			00056001
				62	DROP	R10	00057001
				63 *			00058001
				64	IHILSCS	SAVE (14,12),, 'IHILSCS LEVEL 2.1 &SYSDATE &SYSTIME'	00059001
00003A	47F0 F026		00026	65+	IHILSCS	B 38(0,15) BRANCH AROUND ID	01-SAVE
00003E	21			66+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
00003F	C9C8C9D3E2C3E240			67+	DC	CL32 'IHILSCS LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
00005F	F1			68+	DC	CL1 '1' IDENTIFIER	01-SAVE
000060	90EC D00C		0000C	69+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				70 *			00060001
		R:F 0003A		71	USING	IHILSCS,R15	00061001
000064	41A0 F040		0007A	72	LA	R10,COMMON	00062001
				73	DROP	R15	00063001
		R:A 0007A		74	USING	COMMON,R10	00064001
000068	1B00			75	SR	R0,R0	00065001
00006A	5810 1000		00000	76	L	R1,0(,R1) R1 -> ARGUMENT	00066001
00006E	9180 1000		00000	77	TM	0(R1),X'80' IF ARG IS +, CRANK OF 0 TO R0	00067001
000072	4780 A000		0007A	78	BZ	COMMON IF ARG IS -, CRANK OF 4 TO R0	00068001
000076	4100 0004		00004	79	LA	R0,4	00069001
00007A	6800 1000		00000	80	COMMON	LD FPR0,0(,R1) PICK UP THE ARGUMENT	00070001
00007E	3000			81	LPER	FPR0,FPR0 FORCE SIGN OF ARG TO +	00071001
000080	7900 A12E		001A8	82	CE	FPR0,MAX /X/ >= PI*2**50 ?	00072001
000084	4780 A09C		00116	83	BNL	ERROR YES, ERROR	00073001
000088	6D00 A11E		00198	84	DD	FPR0,PIOV4 DIV BY PI/4, SEPARATE INTEGER	00074001
00008C	2820			85	LDR	FPR2,FPR0 PART AND FRACT PART OF QUOTIENT	00075001
00008E	6E20 A0AE		00128	86	AW	FPR2,SCALER FORCE CHARACTERISTIC X'4E'	00076001
000092	6020 A0A6		00120	87	STD	FPR2,ARG INTEGER PART UNNORMAL = OCTANT	00077001
000096	2B22			88	SDR	FPR2,FPR2	00078001
000098	6A20 A0A6		00120	89	AD	FPR2,ARG	00079001
00009C	2B02			90	SDR	FPR0,FPR2	00080001
00009E	5E00 A0AA		00124	91	AL	R0,ARG+4 ADJUST OCTANT NUMBER WITH CRANK	00081001
0000A2	5000 A132		001AC	92	ST	R0,OCTNT SAVE IT	00082001
0000A6	9101 A135		001AF	93	TM	OCTNT+3,X'01' IF ODD OCTANT, TAKE COMPLEMENT	00083001
0000AA	4780 A03C		000B6	94	BZ	EVEN OF FRACT TO OBTAIN MODIFIED ARG	00084001
0000AE	6B00 A126		001A0	95	SD	FPR0,HALF	00085001
0000B2	6B00 A126		001A0	96	SD	FPR0,HALF SUBTRACT 1 IN 2 STEPS	00086001
0000B6	2040			97	EVEN	LPDR FPR4,FPR0	00087001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04    2012/08/17 13.21
0000B8	1B11			98	SR	R1, R1	R1 = 0 FOR COSINE POLYNOMIAL    00088001
0000BA	9103 A135	001AF		99	TM	OCTNT+3, X'03'	THIS IS FOR OCTANT 2,3,6, OR 7    00089001
0000BE	4740 A04C		000C6	100	BM	LABAA	IF OCTANT 1,4,5, OR 8, USE SINE    00090001
0000C2	4110 0008		00008	101	LA	R1, 8	POLYNOMIAL.    R1 = 8    00091001
0000C6	2C00			102	MDR	FPR0, FPR0	CALC SIN OR COS OF MODIFIED ARG    00092001
0000C8	2820			103	LDR	FPR2, FPR0	USING PROPER CHEBYSHEV    00093001
0000CA	6C01 A0B6		00130	104	MD	FPR0, C7 (R1)	INTERPOLATION POLYNOMIAL    00094001
0000CE	6A01 A0C6		00140	105	AD	FPR0, C6 (R1)	00095001
0000D2	2C02			106	MDR	FPR0, FPR2	SIN(X)/X POLYN OF DEGREE 6 IN XSQ    00096001
0000D4	6A01 A0D6		00150	107	AD	FPR0, C5 (R1)	COS(X) POLYN OF DEGREE 7 IN XSQ    00097001
0000D8	2C02			108	MDR	FPR0, FPR2	00098001
0000DA	6A01 A0E6		00160	109	AD	FPR0, C4 (R1)	00099001
0000DE	2C02			110	MDR	FPR0, FPR2	00100001
0000E0	6A01 A0F6		00170	111	AD	FPR0, C3 (R1)	00101001
0000E4	2C02			112	MDR	FPR0, FPR2	00102001
0000E6	6A01 A106		00180	113	AD	FPR0, C2 (R1)	00103001
0000EA	2C02			114	MDR	FPR0, FPR2	00104001
0000EC	6A01 A116		00190	115	AD	FPR0, C1 (R1)	00105001
0000F0	1211			116	LTR	R1, R1	00106001
0000F2	4780 A082		000FC	117	BZ	COSF	00107001
0000F6	2C04			118	MDR	FPR0, FPR4	COMPLETE SIN POLYNOMIAL BY    00108001
0000F8	47F0 A08C		00106	119	B	SIGN	MULTIPLYING BY X    00109001
				120	*		00110001
0000FC	2C02			121	COSF	MDR    FPR0, FPR2	COMPLETE COS POLYNOMIAL    00111001
0000FE	6A00 A126		001A0	122	AD	FPR0, HALF	(ONE MORE DEGREE)    00112001
000102	6A00 A126		001A0	123	AD	FPR0, HALF	ADD 1 IN 2 STEPS    00113001
000106	9104 A135	001AF		124	SIGN	TM    OCTNT+3, X'04'	IF MODIFIED OCTANT IS IN    00114001
00010A	4780 A096		00110	125	BZ	SIGNAA	LOWER PLANE, SIGN IS NEGATIVE    00115001
00010E	3100			126	LNER	FPR0, FPR0	00116001
				127	*		00117001
				128	SIGNAA	RETURN (14,12)	RESTORE CALLERS REGS AND RETURN    00118001
000110				129	SIGNAA	DS    0H	01-RETUR    00119001
000110	98EC D00C		0000C	130	+	LM    14,12,12(13)	RESTORE THE REGISTERS    01-RETUR    00120001
000114	07FE			131	+	BR    14	RETURN    01-RETUR    00121001
				132	*		00122001
000116	47FD 0238		00238	133	ERROR	B    FSAERR+27*4(R13)	PARAMETER -< PI*2**50    00123001
				134	*		00124001
		001CC		135	FSAERR	EQU    X'1CC'	00125001
				136	*		00126001
00011A	000000000000			137	ARG	DC    D'0'	00127001
000120	0000000000000000			138	*		00128001
				139	SCALER	DC    X'4E00000000000000'	00129001
				140	*		00130001
000130	B66C992E84B6AA37			141	C7	DC    X'B66C992E84B6AA37'	00131001
000138	3778FCE0E5AD1685			142	DC	X'3778FCE0E5AD1685'	00132001
000140	387E731045017594			143	C6	DC    X'387E731045017594'	00133001
000148	B978C01C6BEF8CB3			144	DC	X'B978C01C6BEF8CB3'	00134001
000150	BA69B47B1E41AEF6			145	C5	DC    X'BA69B47B1E41AEF6'	00135001
000158	3B541E0BF684B527			146	DC	X'3B541E0BF684B527'	00136001
000160	3C3C3EA0D06ABC29			147	C4	DC    X'3C3C3EA0D06ABC29'	00137001
000168	BD265A599C5CB632			148	DC	X'BD265A599C5CB632'	00138001
000170	BE155D3C7E3C90F8			149	C3	DC    X'BE155D3C7E3C90F8'	00139001
000178	3EA335E33BAC3FBD			150	DC	X'3EA335E33BAC3FBD'	00140001
000180	3F40F07C206D6AB1			151	C2	DC    X'3F40F07C206D6AB1'	00141001
000188	C014ABBCE625BE41			152	DC	X'C014ABBCE625BE41'	00142001
000190	C04EF4F326F91777			153	C1	DC    X'C04EF4F326F91777'	00143001
000198	40C90FDAA22168C2			154	PIOV4	DC    X'40C90FDAA22168C2'	00144001
0001A0	4080000000000000			155	HALF	DC    X'4080000000000000'	00145001
				156	*		00146001
0001A8	4DC90FDA			157	MAX	DC    X'4DC90FDA'	00147001
0001AC	00000000			158	OCTNT	DC    F'0'	00148001
				159	*		00149001
				160	*	REGSITER EQUATES	01-IEZRE    00150001
				161	*		00151001
				162		IEZREGS	01-IEZRE    00152001
	00000			163	R0	EQU    0	01-IEZRE    00153001
	00001			164	R1	EQU    1	01-IEZRE    00154001
	00002			165	R2	EQU    2	01-IEZRE    00155001
	00003			166	R3	EQU    3	01-IEZRE    00156001
	00004			167	R4	EQU    4	01-IEZRE    00157001
	00005			168	R5	EQU    5	01-IEZRE    00158001
	00006			169	R6	EQU    6	01-IEZRE    00159001
	00007			170	R7	EQU    7	01-IEZRE    00160001
	00008			171	R8	EQU    8	01-IEZRE    00161001
	00009			172	R9	EQU    9	01-IEZRE    00162001
	0000A			173	R10	EQU    10	01-IEZRE    00163001
	0000B			174	R11	EQU    11	01-IEZRE    00164001
	0000C			175	R12	EQU    12	01-IEZRE    00165001
	0000D			176	R13	EQU    13	01-IEZRE    00166001
	0000E			177	R14	EQU    14	01-IEZRE    00167001
	0000F			178	R15	EQU    15	01-IEZRE    00168001
				179	*		00169001
				180		END	00170001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21
ARG	8	00000120	00000001	D	D		137	87M 89 91				
COMMON	4	0000007A	00000001	I			80	55 57U 60B 72 74U 78B				
COSF	2	000000FC	00000001	I			121	117B				
C1	8	00000190	00000001	X	X		153	115				
C2	8	00000180	00000001	X	X		151	113				
C3	8	00000170	00000001	X	X		149	111				
C4	8	00000160	00000001	X	X		147	109				
C5	8	00000150	00000001	X	X		145	107				
C6	8	00000140	00000001	X	X		143	105				
C7	8	00000130	00000001	X	X		141	104				
ERROR	4	00000116	00000001	I			133	83B				
EVEN	2	000000B6	00000001	I			97	94B				
FPR0	1	00000000		U			43	80M 81M 82 84M 85 90M 95M 96M 97 102M 103 104M				
								105M 106M 107M 108M 109M 110M 111M 112M 113M 114M 115M 118M				
								121M 122M 123M 126M				
FPR2	1	00000002		U			44	85M 86M 87 88M 89M 90 103M 106 108 110 112 114				
								121				
FPR4	1	00000004		U			45	97M 118				
FSAERR	1	000001CC		U			135	133B				
HALF	8	000001A0	00000001	X	X		155	95 96 122 123				
IHLISCC	4	00000000	00000001	I			48	40 54U				
IHLISCS	4	0000003A	00000001	I			65	41 71U				
LABAA	2	000000C6	00000001	I			102	100B				
MAX	4	000001A8	00000001	X	X		157	82				
OCTNT	4	000001AC	00000001	F	F		158	92M 93 99 124				
PIOV4	8	00000198	00000001	X	X		154	84				
R0	1	00000000		U			163	58M 75M 79M 91M 92				
R1	1	00000001		U			164	59M 76M 77 80 98M 101M 104 105 107 109 111 113				
								115 116M				
R10	1	0000000A		U			173	55M 57U 62D 72M 74U				
R13	1	0000000D		U			176	133				
R15	1	0000000F		U			178	54U 56D 71U 73D				
SCALER	8	00000128	00000001	X	X		139	86				
SIGN	4	00000106	00000001	I			124	119B				
SIGNAA	2	00000110	00000001	H	H		129	125B				

X390 3.1.04 2012/08/17 13.21

Con	Source	Members
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X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
54		USING	Ordinary	00000001	00000000	00001000	15	0007A	55	IHILSCC,R15			
56		DROP					15			R15			
57		USING	Ordinary	00000001	0000007A	00001000	10	00000	60	COMMON,R10			
62		DROP					10			R10			
71		USING	Ordinary	00000001	0000003A	00001000	15	00040	72	IHILSCS,R15			
73		DROP					15			R15			
74		USING	Ordinary	00000001	0000007A	00001000	10	00135	125	COMMON,R10			

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHILSC      PROCSTEP: X390

Primary input: lines      1 to      151 of SYSD.ALGOLFRT.ASM(IHILSC)

SYSLIB library records read: 161

SYSUT1 work file size: 18015 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 12080 bytes

SYSLIN file records written: 10

TXA000I Return code 0, elapsed time 0.17 seconds.

No uninitialized areas found

**IHILSQ**

**LEVEL**

**V2.M01**



TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHILSQ)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00182
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	WRITE X =	M*16***(2P-Q), M MANTISSA, Q=0 OR 1	00008001
				9 *	THEN SQRT(X) =	SQRT(M)*(4**-Q)*(16**P)	00009001
				10 *			00010001
				11 *	ENTRY POINT -		00011001
				12 *	IHILSQ -	SQRT FUNCTION, LONG	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *		DATA PASSED BY NAME	00015001
				16 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00016001
				17 *			00017001
				18 *	INPUT -	N/A	00018001
				19 *			00019001
				20 *	OUTPUT -	N/A	00020001
				21 *			00021001
				22 *	EXTERNAL ROUTINES -	N/A	00022001
				23 *			00023001
				24 *	EXIT -	NORMAL -	00024001
				25 *	RETURN VIA	R14, RESULT IN FPR0	00025001
				26 *			00026001
				27 *	EXIT -	ERROR -	00027001
				28 *	IF ARGUMENT NEGATIVE GOTO ERROR ROUTINE VIA		00028001
				29 *	B	FSAERR+23*4(R13)	00029001
				30 *			00030001
				31 *	TABLES/WORKAREAS -	N/A	00031001
				32 *			00032001
000000		00000	000A6	33	IHILSQRT	CSECT	00033001
				34 *			00034001
				35	ENTRY	IHILSQ	00035001
				36 *			00036001
		00000		37	FPR0	EQU 0 RESULT REGISTER	00037001
		00002		38	FPR2	EQU 2 SCRATCH REGISTERS	00038001
		00004		39	FPR4	EQU 4	00039001
				40 *			00040001
				41	IHILSQ	SAVE (14,12),, 'IHILSQRT LEVEL 2.1 &SYSDATE &SYSTIME'	00041001
000000	47F0 F026		00026	42+	IHILSQ	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			43+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D3E2D8D9E3			44+	DC	CL32' IHILSQRT LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			45+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	46+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				47 *			00042001
		R:F 00000		48	USING	IHILSQRT,R15	00043001
00002A	5810 1000		00000	49	L	R1,0(,R1)	00044001
00002E	6800 1000		00000	50	LD	FPR0,0(,R1)	00045001
000032	2240			51	LTRD	FPR4,FPR0	00046001
000034	4780 F08E		0008E	52	BZ	FIN	00047001
000038	4740 F094		00094	53	BM	ERROR	00048001
00003C	7000 F098		00098	54	STE	FPR0,BUFF	00049001
000040	1B00			55	SR	R0,R0	00050001
000042	4300 F098		00098	56	IC	R0,BUFF	00051001
000046	4A00 F0A4		000A4	57	AH	R0,BIAS	00052001
00004A	8C00 0001		00001	58	SRDL	R0,1	00053001
00004E	4200 F098		00098	59	STC	R0,BUFF	00054001
000052	4200 F0A0		000A0	60	STC	R0,B	00055001
000056	7800 F098		00098	61	LE	FPR0,BUFF	00056001
00005A	7C00 F09C		0009C	62	ME	FPR0,A	00057001
00005E	7A00 F0A0		000A0	63	AE	FPR0,B	00058001
000062	1211			64	LTR	R1,R1	00059001
000064	4740 F06C		0006C	65	BM	OK	00060001
000068	3400			66	HER	FPR0,FPR0	00061001
00006A	3400			67	HER	FPR0,FPR0	00062001
00006C	3824			68 OK	LER	FPR2,FPR4	00063001
00006E	3D20			69	DER	FPR2,FPR0	00064001
000070	3A02			70	AER	FPR0,FPR2	00065001
000072	3400			71	HER	FPR0,FPR0	00066001
000074	3824			72	LER	FPR2,FPR4	00067001
000076	3D20			73	DER	FPR2,FPR0	00068001
000078	3A02			74	AER	FPR0,FPR2	00069001
00007A	3400			75	HER	FPR0,FPR0	00070001
00007C	2824			76	LDR	FPR2,FPR4	00071001
00007E	2D20			77	DDR	FPR2,FPR0	00072001
000080	2422			78	HDR	FPR2,FPR2	00073001
000082	2400			79	HDR	FPR0,FPR0	00074001
000084	2A02			80	ADR	FPR0,FPR2	00075001
000086	2D40			81	DDR	FPR4,FPR0	00076001
000088	2F40			82	SWR	FPR4,FPR0	00077001
00008A	2444			83	HDR	FPR4,FPR4	00078001
00008C	2A04			84	ADR	FPR0,FPR4	00079001
				85 *			00080001
				86 FIN	RETURN	(14,12) RESTORE REGS AND RETURN	00081001
00008E				87+FIN	DS	0H	01-RETUR
00008E	98EC D00C		0000C	88+	LM	14,12,12(13) RESTORE THE REGISTERS	01-RETUR
000092	07FE			89+	BR	14 RETURN	01-RETUR
				90 *			00082001
000094	47FD 0228		00228	91 ERROR	B	FSAERR+23*4(R13) NEGATIVE PARAMETER	00083001
				92 *			00084001
		001CC		93 FSAERR	EQU	X'1CC'	00085001
				94 *			00086001
000098	00000000			95 BUFF	DC	F'0'	00087001
00009C	40E38E39			96 A	DC	X'40E38E39'	00088001
0000A0	4038E38E			97 B	DC	X'4038E38E'	00089001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17	13.21
				98 *					00090001
0000A4	0041			99 BIAS	DC	H'65'			00091001
				100 *					00092001
				101 *	REGISTER	EQUATES			00093001
				102 *					00094001
				103	IEZREGS				00095001
	00000		104+R0		EQU	0			01-IEZRE
	00001		105+R1		EQU	1			01-IEZRE
	00002		106+R2		EQU	2			01-IEZRE
	00003		107+R3		EQU	3			01-IEZRE
	00004		108+R4		EQU	4			01-IEZRE
	00005		109+R5		EQU	5			01-IEZRE
	00006		110+R6		EQU	6			01-IEZRE
	00007		111+R7		EQU	7			01-IEZRE
	00008		112+R8		EQU	8			01-IEZRE
	00009		113+R9		EQU	9			01-IEZRE
	0000A		114+R10		EQU	10			01-IEZRE
	0000B		115+R11		EQU	11			01-IEZRE
	0000C		116+R12		EQU	12			01-IEZRE
	0000D		117+R13		EQU	13			01-IEZRE
	0000E		118+R14		EQU	14			01-IEZRE
	0000F		119+R15		EQU	15			01-IEZRE
			120 *						00096001
			121		END				00097001

[illegible]

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.21

0(0)	46	55M	56M	57M	58M	59	60	88M
1(1)	46	49M	50	58M	64M	88M		
2(2)	46	88M						
3(3)	46	88M						
4(4)	46	88M						
5(5)	46	88M						
6(6)	46	88M						
7(7)	46	88M						
8(8)	46	88M						
9(9)	46	88M						
10(A)	46	88M						
11(B)	46	88M						
12(C)	46	88M						
13(D)	46	88	91N					
14(E)	46	88M	89B					
15(F)	42B	46	48U	88M				

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

QRT				USING Map							PAGE			7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.21
48		USING	Ordinary	00000001	00000000	00001000	15	000A4	65	IHILSQRT,R15				

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHILSQ      PROCSTEP: X390

Primary input: lines      1 to      97 of SYSD.ALGOLFRT.ASM(IHILSQ)

SYSLIB library records read: 161

SYSUT1 work file size: 11254 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 7760 bytes

SYSLIN file records written: 5

TXA000I Return code 0, elapsed time 0.14 seconds.



INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHILSQRT 0000A6 2

**IHIOAR**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
LAngeue(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIOAR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00186
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *		STATUS - LEVEL 2.1	00005001
				6 *			00006001
				7 *		FUNCTION/OPERATION -	00007001
				8 *		TRANSFER NUMBERS FROM ARRAY INDICATED BY SECOND ACTUAL	00008001
				9 *		PARAMETER TO OUTPUT BUFFER BY CALLING OUTREAL LONG OR	00009001
				10 *		SHORT REPEATEDLY	00010001
				11 *			00011001
				12 *		ENTRY POINT -	00012001
				13 *		IHIOARRY - FROM GENERATED OBJECT MODULE	00013001
				14 *		LA R1,PARMLIST	00014001
				15 *		BALR R14,R15	00015001
				16 *		DATA PASSED BY NAME	00016001
				17 *			00017001
				18 *		INPUT - N/A	00018001
				19 *			00019001
				20 *		OUTPUT - N/A	00020001
				21 *			00021001
				22 *		EXTERNAL ROUTINES -	00022001
				23 *		IHIOR - EVALUATE DATA SET NUMBER	00023001
				24 *		IHISOR - OUTREAL SHORT	00024001
				25 *		IHILOR - OUTREAL LONG	00025001
				26 *			00026001
				27 *		EXIT - NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00027001
				28 *			00028001
				29 *		EXIT - ERROR - N/A	00029001
				30 *			00030001
				31 *		TABLES/WORK AREAS - N/A	00031001
				32 *			00032001
000000		00000	000AA	33	IHIOARRY	CSECT	00033001
				34 *			00034001
				35		SAVE (14,12),, 'IHIOARRY LEVEL 2.1 &SYSDATE &SYSTIME'	00035001
000000	47F0 F026		00026	36+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			37+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D6C1D9D9E8			38+	DC	CL32 'IHIOARRY LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			39+	DC	CL1 '1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	40+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
00002A	188F			41	LR	R8, R15	00036001
		R:8	00000	42	USING	IHIOARRY, R8	00037001
00002C	18CD			43	LR	R12, R13 R12 -> FSA	00038001
00002E	41D0 C048		00048	44	LA	R13, ASAVE(, R12) R13 -> SECOND FSA SAVEAREA	00039001
000032	1B33			45	SR	R3, R3	00040001
				46 *			00041001
				47 *		EVALUATE DATASET NUMBER	00042001
				48 *			00043001
000034	58F0 8090		00090	49	L	R15, VIOREV R15 -> IHIIOREV ROUTINE	00044001
000038	05EF			50	BALR	R14, R15 CALL IHIIOREV	00045001
				51 *			00046001
				52 *		EVALUATE SOURCE ADDR	00047001
				53 *			00048001
00003A	BF1F 1004		00004	54	ICM	R1, B'1111', 4(R1)	00049001
00003E	47B0 804A		0004A	55	BNM	OTARY1 >= 0, BRANCH	00050001
000042	5630 80A0		000A0	56	O	R3, =X'80000000'	00051001
000046	5410 80A4		000A4	57	N	R1, =X'00FFFFFF'	00052001
00004A	5820 100C		0000C	58	OTARY1	L R2, 12(, R1) R2 -> DESTEND+1	00053001
00004E	5870 1008		00008	59	L	R7, 8(, R1) R7 -> STARTDEST	00054001
000052	1A73			60	AR	R7, R3	00055001
000054	1A23			61	AR	R2, R3	00056001
				62 *			00057001
				63 *		CALL ROUTINE OUREAL LONG OR SHORT	00058001
				64 *			00059001
000056	4140 0004		00004	65	LA	R4, 4 SETUP FOR SHORT	00060001
00005A	9120 C0C2		000C2	66	TM	OPTSW(R12), X'20' LONG OR SHORT PRECISION ?	00061001
00005E	4710 8066		00066	67	BO	OTARY2 SHORT, BRANCH	00062001
000062	4140 0008		00008	68	LA	R4, 8 LONG	00063001
000066	58F4 8094		00094	69	OTARY2	L R15, ARROUTR(R4)	00064001
00006A	05EF			70	BALR	R14, R15	00065001
00006C	9120 C0C2		000C2	71	TM	OPTSW(R12), X'20' LONG OR SHORT	00066001
000070	4710 807E		0007E	72	BO	OTARY3 SHORT	00067001
000074	1277			73	LTR	R7, R7 LONG	00068001
000076	4720 807E		0007E	74	BP	OTARY3	00069001
00007A	4B70 80A8		000A8	75	SH	R7, =H'4' 00070001	
00007E	1A74			76	OTARY3	AR R7, R4 INCREASE DEST ADDR	00071001
000080	1972			77	CR	R7, R2	00072001
000082	4740 8066		00066	78	BL	OTARY2 DESTEND NOT REACHED	00073001
000086	18DC			79	LR	R13, R12	00074001
				80 *			00075001
				81		RETURN (14,12)	00076001
000088	98EC D00C		0000C	82+	LM	14,12,12(13) RESTORE THE REGISTERS	01-RETUR
00008C	07FE			83+	BR	14 RETURN	01-RETUR
				84 *			00077001
				85 *		EXTERNAL ADDRS	00078001
				86 *			00079001
00008E	0000						
000090	00000000			87	VIOREV	DC V(IHIIOREV)	00080001
				88 *			00081001
000094	00000000			89	ARROUTR	DC A(0) +00	00082001
000098	00000000			90	DC	V(IHISORAR) +04	00083001
00009C	00000000			91	DC	V(IHILORAR) +08	00084001
				92 *			00085001
0000A0				93		LTORG	00086001
0000A0	80000000			94		=X'80000000'	
0000A4	00FFFFFF			95		=X'00FFFFFF'	
0000A8	0004			96		=H'4'	

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				97 *			00087001
000000		00000	00120	98 FAS	DSECT		00088001
				99 *			00089001
				100	COPY	FSAREA	00090001
				101=*			00001001
				102=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				103=*			00003001
				104=*		STATUS - LEVEL 2.1	00004001
				105=*			00005001
				106=*****			00006001
				107=*			00007001
				108=*		COMMON DATA AREA	00008001
				109=*			00009001
				110=*		FSAREA	00010001
				111=*			00011001
				112=*****			00012001
				113=*			00013001
				114=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				115=*		MODULES DURING THE EXECUTION	00015001
				116=*			00016001
				117=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				118=*		SUBROUTINES) BY R12	00018001
				119=*			00019001
		00000		120=FSAREA	EQU *		00020001
				121=*			00021001
				122=*		SAVE AREAS	00022001
				123=*			00023001
000000				124=	DS	18F STANDARD SAVE AREA	00024001
		00048		125=ASAVE	EQU *-FSAREA	ALTERNATE SAVE AREA USED BY	00025001
000048				126=	DS	18F CERTAIN SUBROUTINES	00026001
				127=*			00027001
				128=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				129=*			00029001
		00090		130=FCTVALST	EQU *-FSAREA	TEMPORARY STORAGE FOR	00030001
000090				131=	DS	D FUNCTION VALUES	00031001
		00098		132=ASTLOC	EQU *-FSAREA	DISPL FOR ADDR OF STAND LOCTN	00032001
000098 00000090				133=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		134=BRRST	EQU *-FSAREA	TEMPORARY SAVE REG BRR	00034001
		0009C		135=HW	EQU	BRRST TEMPORARY HALFWORD STORAGE	00035001
00009C				136=	DS	F	00036001
		000A0		137=PROLREG	EQU *-FSAREA	STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				138=	DS	2A A PROCEDURE IS FORMAL PARAM	00038001
				139=*			00039001
				140=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				141=*			00041001
0000A8				142=	DS	0H	00042001
0000A8 00				143=	DC	X'00'	00043001
		000A9		144=PROLPBN	EQU *-FSAREA	STORAGE FOR CALLED PBN	00044001
0000A9 00				145=	DC	X'00'	00045001
		000AA		146=EIGHT	EQU *-FSAREA	CONST FOR REDUCING RAS	00046001
0000AA 0008				147=	DC	H'8'	00047001
				148=*			00048001
0000AC				149=	DS	0F	00049001
		000AC		150=ADSTAB	EQU *-FSAREA	ADDR OF DSTABLE	00050001
0000AC				151=	DS	A	00051001
		000B0		152=ANOTTAB	EQU *-FSAREA	ADDR OF NOTE TABLE	00052001
0000B0				153=	DS	A (INSERTED BY THE OPEN ROUTINE)	00053001
				154=*			00054001
		000B4		155=IHIFFAST	EQU *		00055001
		000B4		156=PGOPSW	EQU *-FSAREA	PROGRAM CHECK OLD PSW	00056001
0000B4				157=	DS	2F	00057001
		000BC		158=FSAPICA	EQU *-FSAREA	OLD PICA ADDR	00058001
0000BC 00000000				159=	DC	F'0'	00059001
		000C0		160=SCRCs	EQU *-FSAREA	SEMICOLON NUMBER	00060001
0000C0				161=	DS	H	00061001
		000C2		162=DTsw	EQU *-FSAREA	OPTION SWITCHES	00062001
		000C2		163=OPTsw	EQU	DTsw	00063001
0000C2 00				164=	DC	X'00'	00064001
		000C3		165=FSAERCOD	EQU *-FSAREA	DUMP-80, TRACE-40, SHORT-20	00065001
0000C3				166=	DS	C ERROR CODE FOR ERROR ROUTINE	00066001
				167=*			00067001
				168=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				169=*			00069001
0000C4				170=	DS	0F	00070001
		000C4		171=IHIFSARS	EQU *		00071001
		000C4		172=RASSTART	EQU *-FSAREA	ADDR OF FIRST ENTRY IN RAS-8	00072001
0000C4				173=	DS	F	00073001
		000C8		174=RASPT	EQU *-FSAREA	RAS POINTER FROM TOP	00074001
0000C8				175=	DS	F	00075001
		000CC		176=RASEND	EQU *-FSAREA	ADDR OF LAST ENTRY IN RAS+8	00076001
0000CC				177=	DS	F	00077001
		000D0		178=RASPB	EQU *-FSAREA	RAS POINTER FROM BOTTOM	00078001
0000D0				179=	DS	F	00079001
				180=*			00080001
				181=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				182=*			00082001
0000D4				183=BRLIST	DS	0F	00083001
		000D4		184=CAP1	EQU *-FSAREA	FIRST PART CAPS	00084001
0000D4 4700 0000			00000	185=	NOP	0	00085001
		000D8		186=CAP2	EQU *-FSAREA	SECOND PART CAPS	00086001
0000D8 4700 0000			00000	187=	NOP	0	00087001
		000DC		188=PROLOGP	EQU *-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY	00088001
		000DC		189=PROLOGFP	EQU	PROLOGP	00089001
0000DC 4700 0000			00000	190=	NOP	0	00090001
		000E0		191=PROLOG	EQU *-FSAREA	PROLOGUE PROGRAM USUAL ENTRY	00091001
0000E0 4700 0000			00000	192=	NOP	0	00092001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
		000E4		193=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM 00093001
0000E4 4700 0000		00000	00000	194=	NOP	0	00094001
		000E8		195=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY 00095001
0000E8 4700 0000		00000	00000	196=	NOP	0	00096001
		000EC		197=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY 00097001
0000EC 4700 0000		00000	00000	198=	NOP	0	00098001
		000F0		199=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3 00099001
0000F0 4700 0000		00000	00000	200=	NOP	0	00100001
		000F4		201=CSWE1	EQU	*-FSAREA	FIRST PART CSWES 00101001
0000F4 4700 0000		00000	00000	202=	NOP	0	00102001
		000F8		203=CSWE2	EQU	*-FSAREA	SECOND PART CSWES 00103001
0000F8 4700 0000		00000	00000	204=	NOP	0	00104001
		000FC		205=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE 00105001
0000FC 4700 0000		00000	00000	206=	NOP	0	00106001
		00100		207=TRACE	EQU	*-FSAREA	00107001
000100 D200 0000 0000	00000	00000	00000	208=	MVC	0(0),0	00108001
000106 4700 0000		00000	00000	209=	NOP	0	00109001
00010A 4700 0000		00000	00000	210=	NOP	0	00110001
		0010E		211=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT 00111001
00010E 4700 0000		00000	00000	212=	NOP	0	00112001
		00112		213=BCR	EQU	*-FSAREA	00113001
000112 0700				214=	BCR	0,0	VARIABLE CONDITIONAL BRANCH 00114001
		00114		215=GETMSTO	EQU	*-FSAREA	00115001
000114 4700 0000		00000	00000	216=	NOP	0	00116001
				217=*			00117001
		00118		218=VALUCALL	EQU	*-FSAREA	00118001
000118 4700 0000		00000	00000	219=	NOP	0	00119001
		0011C		220=IORLST	EQU	*-FSAREA	00120001
00011C 4700 0000		00000	00000	221=	NOP	0	00121001
				222=*			00122001
		001CC		223=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST 00123001
				224=*			00124001
				225=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				226=*			00126001
		0020C		227=OUTOFB	EQU	FSAERR+4*16	00127001
000218				228=NUMBIND	EQU	FSAERR+4*19	00128001
000208				229=ARRAYBD	EQU	FSAERR+4*15	00129001
00026C				230=ERROR40	EQU	FSAERR+4*40	00130001
000224				231=OERR22	EQU	FSAERR+4*22	00131001
000210				232=ENDLESL	EQU	FSAERR+4*17	00132001
000220				233=OERR21	EQU	FSAERR+4*21	00133001
				234=*			00134001
				235 *			00091001
				236 *	REGISTER EQUATES		00092001
				237 *			00093001
				238	IEZREGS		00094001
		00000		239+R0	EQU	0	01-IEZRE
000001				240+R1	EQU	1	01-IEZRE
000002				241+R2	EQU	2	01-IEZRE
000003				242+R3	EQU	3	01-IEZRE
000004				243+R4	EQU	4	01-IEZRE
000005				244+R5	EQU	5	01-IEZRE
000006				245+R6	EQU	6	01-IEZRE
000007				246+R7	EQU	7	01-IEZRE
000008				247+R8	EQU	8	01-IEZRE
000009				248+R9	EQU	9	01-IEZRE
00000A				249+R10	EQU	10	01-IEZRE
00000B				250+R11	EQU	11	01-IEZRE
00000C				251+R12	EQU	12	01-IEZRE
00000D				252+R13	EQU	13	01-IEZRE
00000E				253+R14	EQU	14	01-IEZRE
00000F				254+R15	EQU	15	01-IEZRE
				255 *			00095001
				256	END		00096001

AOR		Symbol Cross Reference							PAGE	
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04 2012/08/17 13.21	
=H'4'	2	000000A8	00000001	H	H		96	75		
=X'00FFFFFF'	4	000000A4	00000001	X	X		95	57		
=X'80000000'	4	000000A0	00000001	X	X		94	56		
ARROUTR	4	00000094	00000001	A	A		89	69		
ASAVE	1	00000048		U			125	44		
BRRST	1	0000009C		U			134	135		
DTSW	1	000000C2		U			162	163		
FCTVALST	1	00000090		U			130	133		
FSAERR	1	000001CC		U			223	227	228	229
FSAREA	1	00000000	FFFFFFFF	U			120	125	130	132
								160	162	165
								195	197	199
IHIIOREV	1	00000000	00000002	T			87	87		
IHILOAR	1	00000000	00000004	T			91	91		
IHIIOARRY	1	00000000	00000001	J			33	42U		
IHISORAR	1	00000000	00000003	T			90	90		
OPTSW	1	000000C2		U			163	66	71	
OTARY1	4	0000004A	00000001	I			58	55B		
OTARY2	4	00000066	00000001	I			69	67B	78B	
OTARY3	2	0000007E	00000001	I			76	72B	74B	
PROLOGP	1	000000DC		U			188	189		
R1	1	00000001		U			240	54M	57M	58
R12	1	0000000C		U			251	43M	44	66
R13	1	0000000D		U			252	43	44M	79M
R14	1	0000000E		U			253	50M	70M	
R15	1	0000000F		U			254	41	49M	50B
R2	1	00000002		U			241	58M	61M	77
R3	1	00000003		U			242	45M	56M	60
R4	1	00000004		U			243	65M	68M	69
R7	1	00000007		U			246	59M	60M	73M
R8	1	00000008		U			247	41M	42U	75M
VIOREV	4	00000090	00000001	V	V		87	49	76M	77

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

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0(0)	40	82M						
1(1)	40	54M	57M	58	59	82M		
2(2)	40	58M	61M	77	82M			
3(3)	40	45M	56M	60	61	82M		
4(4)	40	65M	68M	69N	76	82M		
5(5)	40	82M						
6(6)	40	82M						
7(7)	40	59M	60M	73M	75M	76M	77	82M
8(8)	40	41M	42U	82M				
9(9)	40	82M						
10(A)	40	82M						
11(B)	40	82M						
12(C)	40	43M	44	66	71	79	82M	
13(D)	40	43	44M	79M	82			
14(E)	40	50M	70M	82M	83B			
15(F)	36B	40	41	49M	50B	69M	70B	82M



AOR						Dsect Cross Reference			PAGE	7
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04 2012/08/17 13.21				
FAS	00000120	FFFFFFFF	98		PRIMARY INPUT					

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		FSAREA	
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.21
42		USING	Ordinary	00000001	00000000	00001000	8	000A8	78	IHI0ARRY,R8		

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHIOAR    PROCSTEP: X390

Primary input: lines    1 to    96 of SYSD.ALGOLFRT.ASM(IHIOAR)

SYSLIB library records read: 295

SYSUT1 work file size: 23110 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 7680 bytes

SYSLIN file records written: 8

TXA000I Return code 0, elapsed time 0.19 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIOARRY 0000AA 6

**IHIOBA**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSUpPpress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIOBA)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00190
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	TRANSFER BOOLEAN VALUES FROM ARRAY DEFINED BY SECOND		00008001
				9 *	ACTUAL PARAMETER TO AN OUTPUT BUFFER BY CALLING		00009001
				10 *	OUTBOOLEAN REPEATEDLY		00010001
				11 *			00011001
				12 *	ENTRY POINTS -		00012001
				13 *	IHIOBARR -	FROM GENERATED OBJECT MODULE	00013001
				14 *	LA	R1,PARMLIST	00014001
				15 *	BALR	R14,R15	00015001
				16 *		DATA PASSED BY NAME	00016001
				17 *			00017001
				18 *	INPUT -	N/A	00018001
				19 *			00019001
				20 *	OUTPUT -	N/A	00020001
				21 *			00021001
				22 *	EXTERNAL ROUTINES -		00022001
				23 *	IHIOR -	EVALUATE DATASET NUMBER	00023001
				24 *			00024001
				25 *	IHIOBO -	INBOOLEAN	00025001
				26 *			00026001
				27 *	EXIT -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00027001
				28 *			00028001
				29 *	EXIT -	ERROR - N/A	00029001
				30 *			00030001
				31 *	TABLES/WORK AREAS -	N/A	00031001
				32 *			00032001
000000		00000	00064	33	IHIOBARR	CSECT	00033001
				34 *			00034001
				35	SAVE	(14,12),, 'IHIOBARR LEVEL 2.1 &SYSDATE &SYSTIME'	00035001
000000	47F0 F026		00026	36+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			37+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D6C2C1D9D9			38+	DC	CL32 'IHIOBARR LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			39+	DC	CL1 '1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	40+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
00002A	187F			41	LR	R7,R15	00036001
		R:7	00000	42	USING	IHIOBARR,R7	00037001
00002C	18CD			43	LR	R12,R13 R12 -> FSA	00038001
00002E	41D0 C048		00048	44	LA	R13,ASAVE(,R12) R13 -> SECOND FSA SAVEAREA	00039001
				45 *			00040001
				46 *	EVALUATE DATASET NUMBER		00041001
				47 *			00042001
000032	58F0 705C		0005C	48	L	R15,VIORREC R15 -> IHIIOREC ROUTINE	00043001
000036	05EF			49	BALR	R14,R15 CALL IHIIOREC	00044001
000038	5810 1004		00004	50	L	R1,4(,R1)	00045001
00003C	5840 100C		0000C	51	L	R4,12(,R1) R4 -> SOURCEEND+1	00046001
000040	5820 1008		00008	52	L	R2,8(,R1) R2 -> SOURCE	00047001
				53 *			00048001
				54 *	CALL ROUTINE	OUTBOOLEAN	00049001
				55 *			00050001
000044	58F0 7060		00060	56	OUTBY1	L R15,VOBOAR R15 -> IHIOBOAR ROUTINE	00051001
000048	05EF			57	BALR	R14,R15 CALL IHIOBOAR	00052001
00004A	4120 2001		00001	58	LA	R2,1(,R2) INCREASE SOURCE ADDR BY ONE	00053001
00004E	1924			59	CR	R2,R4	00054001
000050	4740 7044		00044	60	BL	OUTBY1 LOOP, MORE VALUE TO WRITE	00055001
000054	18DC			61	LR	R13,R12	00056001
				62 *			00057001
				63	RETURN	(14,12) RESTORE REGS AND RETURN	00058001
000056	98EC D00C		0000C	64+	LM	14,12,12(13) RESTORE THE REGISTERS	01-RETUR
00005A	07FE			65+	BR	14 RETURN	01-RETUR
				66 *			00059001
				67 *	EXTERNAL ADDRS		00060001
				68 *			00061001
00005C	00000000			69	VIORREC	DC V(IHIIOREV)	00062001
000060	00000000			70	VOBOAR	DC V(IHIOBOAR)	00063001
				71 *			00064001
000000		00000	00120	72	FAS	DSECT	00065001
				73 *			00066001
				74	COPY	FSAREA	00067001
				75=*			00001001
				76=*	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00002001
				77=*			00003001
				78=*	STATUS -	LEVEL 2.1	00004001
				79=*			00005001
				80=*	*****		00006001
				81=*			00007001
				82=*	COMMON DATA AREA		00008001
				83=*			00009001
				84=*	FSAREA		00010001
				85=*			00011001
				86=*	*****		00012001
				87=*			00013001
				88=*	DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL		00014001
				89=*	MODULES DURING THE EXECUTION		00015001
				90=*			00016001
				91=*	ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY		00017001
				92=*	SUBROUTINES) BY R12		00018001
				93=*			00019001
		00000		94=	FSAREA	EQU *	00020001
				95=*			00021001
				96=*	SAVE AREAS		00022001
				97=*			00023001



D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000000				98=	DS	18F	STANDARD SAVE AREA
		00048		99=ASAVE	EQU	*-FSAREA	ALTERNATE SAVE AREA USED BY
000048				100=	DS	18F	CERTAIN SUBROUTINES
				101=*			
				102=*			
				103=*			
		00090		104=FCTVALST	EQU	*-FSAREA	TEMPORARY STORAGE FOR
000090				105=	DS	D	FUNCTION VALUES
		00098		106=ASTLOC	EQU	*-FSAREA	DISPL FOR ADDR OF STAND LOCTN
000098	00000090			107=	DC	A(FSAREA+FCTVALST)	
		0009C		108=BRRST	EQU	*-FSAREA	TEMPORARY SAVE REG BRR
		0009C		109=HW	EQU	BRRST	TEMPORARY HALFWORD STORAGE
00009C				110=	DS	F	
		000A0		111=PROLREG	EQU	*-FSAREA	STORAGE FOR PBT AND LAT WHEN
0000A0				112=	DS	2A	A PROCEDURE IS FORMAL PARAM
				113=*			
				114=*			
				115=*			
				116=	DS	0H	
0000A8				117=	DC	X'00'	
0000A8	00			118=PROLPBN	EQU	*-FSAREA	STORAGE FOR CALLED PBN
		000A9		119=	DC	X'00'	
0000A9	00			120=EIGHT	EQU	*-FSAREA	CONST FOR REDUCING RAS
		000AA		121=	DC	H'8'	
0000AA	0008			122=*			
				123=	DS	0F	
0000AC		000AC		124=ADSTAB	EQU	*-FSAREA	ADDR OF DSTABLE
				125=	DS	A	IN THE OBJECT PROGRAM
		000B0		126=ANOTTAB	EQU	*-FSAREA	ADDR OF NOTE TABLE
0000B0				127=	DS	A	(INSERTED BY THE OPEN ROUTINE)
				128=*			
		000B4		129=IHIFSAST	EQU	*	
		000B4		130=PGOPSW	EQU	*-FSAREA	PROGRAM CHECK OLD PSW
0000B4				131=	DS	2F	
		000BC		132=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR
0000BC	00000000			133=	DC	F'0'	
		000C0		134=SCRCS	EQU	*-FSAREA	SEMICOLON NUMBER
0000C0				135=	DS	H	
		000C2		136=DTSW	EQU	*-FSAREA	OPTION SWITCHES
		000C2		137=OPTSW	EQU	DTSW	
0000C2	00			138=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20
		000C3		139=FSAERCOD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE
0000C3				140=	DS	C	
				141=*			
				142=*			
				143=*			
0000C4				144=	DS	0F	
		000C4		145=IHIFSARS	EQU	*	
		000C4		146=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8
0000C4				147=	DS	F	
		000C8		148=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP
0000C8				149=	DS	F	
		000CC		150=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8
0000CC				151=	DS	F	
		000D0		152=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM
0000D0				153=	DS	F	
				154=*			
				155=*			
				156=*			
0000D4				157=BRLIST	DS	0F	
		000D4		158=CAP1	EQU	*-FSAREA	FIRST PART CAPS
0000D4	4700 0000		00000	159=	NOP	0	
		000D8		160=CAP2	EQU	*-FSAREA	SECOND PART CAPS
0000D8	4700 0000		00000	161=	NOP	0	
		000DC		162=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY
		000DC		163=PROLOGFP	EQU	PROLOGP	
0000DC	4700 0000		00000	164=	NOP	0	
		000E0		165=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY
0000E0	4700 0000		00000	166=	NOP	0	
		000E4		167=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM
0000E4	4700 0000		00000	168=	NOP	0	
		000E8		169=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY
0000E8	4700 0000		00000	170=	NOP	0	
		000EC		171=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY
0000EC	4700 0000		00000	172=	NOP	0	
		000F0		173=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3
0000F0	4700 0000		00000	174=	NOP	0	
		000F4		175=CSWE1	EQU	*-FSAREA	FIRST PART CSWES
0000F4	4700 0000		00000	176=	NOP	0	
		000F8		177=CSWE2	EQU	*-FSAREA	SECOND PART CSWES
0000F8	4700 0000		00000	178=	NOP	0	
		000FC		179=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE
0000FC	4700 0000		00000	180=	NOP	0	
		00100		181=TRACE	EQU	*-FSAREA	
000100	D200 0000 0000	00000	00000	182=	MVC	0(0),0	
000106	4700 0000		00000	183=	NOP	0	
00010A	4700 0000		00000	184=	NOP	0	
		0010E		185=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT
00010E	4700 0000		00000	186=	NOP	0	
		00112		187=BCR	EQU	*-FSAREA	
000112	0700			188=	BCR	0,0	VARIABLE CONDITIONAL BRANCH
		00114		189=GETMSTO	EQU	*-FSAREA	
000114	4700 0000		00000	190=	NOP	0	
				191=*			
		00118		192=VALUCALL	EQU	*-FSAREA	
000118	4700 0000		00000	193=	NOP	0	

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00011C	4700 0000	0011C	00000	194=IORLST	EQU	*-FSAREA	00120001
				195=	NOP	0	00121001
		001CC		196=*			00122001
				197=FSAERR	EQU	X'1CC' DISPL FOR ERROR LIST	00123001
				198=*			00124001
				199=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				200=*			00126001
		0020C		201=OUTOFB	EQU	FSAERR+4*16	00127001
		00218		202=NUMBIND	EQU	FSAERR+4*19	00128001
		00208		203=ARRAYBD	EQU	FSAERR+4*15	00129001
		0026C		204=ERROR40	EQU	FSAERR+4*40	00130001
		00224		205=OERR22	EQU	FSAERR+4*22	00131001
		00210		206=ENDLESL	EQU	FSAERR+4*17	00132001
		00220		207=OERR21	EQU	FSAERR+4*21	00133001
				208=*			00134001
				209 *			00068001
				210 *		REGISTER EQUATES	00069001
				211 *			00070001
				212		IEZREGS	00071001
		00000		213+R0	EQU	0	01-IEZRE
		00001		214+R1	EQU	1	01-IEZRE
		00002		215+R2	EQU	2	01-IEZRE
		00003		216+R3	EQU	3	01-IEZRE
		00004		217+R4	EQU	4	01-IEZRE
		00005		218+R5	EQU	5	01-IEZRE
		00006		219+R6	EQU	6	01-IEZRE
		00007		220+R7	EQU	7	01-IEZRE
		00008		221+R8	EQU	8	01-IEZRE
		00009		222+R9	EQU	9	01-IEZRE
		0000A		223+R10	EQU	10	01-IEZRE
		0000B		224+R11	EQU	11	01-IEZRE
		0000C		225+R12	EQU	12	01-IEZRE
		0000D		226+R13	EQU	13	01-IEZRE
		0000E		227+R14	EQU	14	01-IEZRE
		0000F		228+R15	EQU	15	01-IEZRE
				229 *			00072001
				230		END	00073001

[illegible]

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.21

0(0)	40	64M						
1(1)	40	50M	51	52	64M			
2(2)	40	52M	58M	59	64M			
3(3)	40	64M						
4(4)	40	51M	59	64M				
5(5)	40	64M						
6(6)	40	64M						
7(7)	40	41M	42U	64M				
8(8)	40	64M						
9(9)	40	64M						
10(A)	40	64M						
11(B)	40	64M						
12(C)	40	43M	44	61	64M			
13(D)	40	43	44M	61M	64			
14(E)	40	49M	57M	64M	65B			
15(F)	36B	40	41	48M	49B	56M	57B	64M

Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.21
FAS	00000120	FFFFFFFF	72		PRIMARY INPUT			

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		FSAREA	
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.21
42		USING	Ordinary	00000001	00000000	00001000	7	00060	60	IHI0BARR,R7		

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIOBA      PROCSTEP: X390

Primary input: lines      1 to      73 of SYSD.ALGOLFRT.ASM(IHIOBA)

SYSLIB library records read: 295

SYSUT1 work file size: 20786 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 5840 bytes

SYSLIN file records written: 5

TXA000I Return code 0, elapsed time 0.18 seconds.



INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIOBARR 000064 4

**IHI OBO**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSUpPess	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIOB0)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00194
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	TRANSFER BOOLEAN VALUE FROM SECOND PARAMETER TO AN		00008001
				9 *	OUTPUT BUFFER WITH CHARACTER STRING 'TRUE' OR 'FALSE'		00009001
				10 *			00010001
				11 *	ENTRY POINTS -		00011001
				12 *	IHI000L -	FROM GENERATED OBJECT MODULE	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *	DATA PASSED BY NAME		00015001
				16 *	IHI000A -	FROM ARRAY MODULE IHI00A	00016001
				17 *	LA	R2,DATA	00017001
				18 *	BALR	R14,R15	00018001
				19 *	DATA PASSED BY NAME		00019001
				20 *			00020001
				21 *	INPUT -	N/A	00021001
				22 *			00022001
				23 *	OUTPUT -	N/A	00023001
				24 *			00024001
				25 *	EXTERNAL ROUTINES -		00025001
				26 *	IHI00R -	EVALUATE DATASET NUMBER	00026001
				27 *	-	OPEN DATASET	00027001
				28 *	-	CHANGE TO NEXT RECORD	00028001
				29 *			00029001
				30 *	EXIT -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00030001
				31 *			00031001
				32 *	EXIT -	ERROR - TOO LONG RECORD - NO 38	00032001
				33 *	BRANCH TO	IHIFSA	00033001
				34 *	L	R13,IHIFSA	00034001
				35 *	B	FSAERR+XX*4(R13) XX ERROR NO	00035001
				36 *			00036001
				37 *	TABLES/WORK AREAS -	N/A	00037001
				38 *			00038001
000000		00000	001C8	39	IHI000L	CSECT	00039001
				40 *			00040001
				41	ENTRY	IHI000A	00041001
				42 *			00042001
				43 *	DISPLACEMENTS IN	ADRLST IN IHIFSA	00043001
				44 *			00044001
		00000		45	CI	EQU 0 DISPLACEMENT FOR - IHI00RCI	00045001
		00004		46	CL	EQU 4 IHI00RCL	00046001
		00008		47	EV	EQU 8 IHI00REV	00047001
		0000C		48	NX	EQU 12 IHI00RN	00048001
		00010		49	OP	EQU 16 IHI00ROP	00049001
		00014		50	OQ	EQU 20 IHI00ROQ	00050001
				51 *			00051001
		R:5	00000	52	USING	DSTABLE,R5 R5 -> DSTABLE ENTRY	00052001
				53 *			00053001
				54	SAVE	(14,12),, 'IHI000L LEVEL 2.1 &SYSDATE &SYSTIME'	00054001
000000	47F0	F026	00026	55+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			56+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D6C2D6D6D3			57+	DC	CL32 'IHI000L LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			58+	DC	CL1 '1' IDENTIFIER	01-SAVE
000026	90EC	D00C	0000C	59+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				60 *			00055001
		R:F	00000	61	USING	IHI000L,R15	00056001
00002A	18CD			62	LR	R12,R13 CHAIN SAVE AREAS	00057001
00002C	41D0	F180	00180	63	LA	R13,SAVEAREA	00058001
000030	50C0	D004	00004	64	ST	R12,4(,R13)	00059001
000034	50D0	C008	00008	65	ST	R13,8(,R12)	00060001
000038	4170	F08E	0008E	66	LA	R7,COMMON	00061001
				67	DROP	R15	00062001
		R:7	0008E	68	USING	COMMON,R7	00063001
				69 *			00064001
				70 *	EVALUATE DATASET NUMBER		00065001
				71 *			00066001
00003C	58F0	C11C	0011C	72	L	R15,IORLST(,R12)	00067001
000040	58F0	F008	00008	73	L	R15,EV(,R15)	00068001
000044	05EF			74	BALR	R14,R15	00069001
000046	5810	1004	00004	75	L	R1,4(,R1)	00070001
00004A	5010	70DE	0016C	76	ST	R1,ASOURCE	00071001
00004E	47F0	7000	0008E	77	B	COMMON	00072001
				78 *			00073001
				79	DROP	R7	00074001
				80 *			00075001
				81	IHI000A	SAVE (14,12),, 'IHI000A LEVEL 2.1 &SYSDATE &SYSTIME'	00076001
000052	47F0	F026	00026	82+	IHI000A	B 38(0,15) BRANCH AROUND ID	01-SAVE
000056	21			83+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000057	C9C8C9D6C2D6C1D9			84+	DC	CL32 'IHI000A LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000077	F1			85+	DC	CL1 '1' IDENTIFIER	01-SAVE
000078	90EC	D00C	0000C	86+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				87 *			00077001
		R:F	00052	88	USING	IHI000A,R15	00078001
00007C	187D			89	LR	R7,R13 CHAIN SAVE AREAS	00079001
00007E	41D0	F12E	00180	90	LA	R13,SAVEAREA	00080001
000082	5070	D004	00004	91	ST	R7,4(,R13)	00081001
000086	50D0	7008	00008	92	ST	R13,8(,R7)	00082001
00008A	4170	F03C	0008E	93	LA	R7,COMMON	00083001
				94	DROP	R15	00084001
		R:7	0008E	95	USING	COMMON,R7	00085001
				96 *			00086001
00008E	9630	501A	0001A	97	COMMON	OI DSF,DS2+DS3 DS2, DS3 SET TO ONE	00087001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000092	94FE 501A	0001A		98	NI	DSF,255-DS7	DS7 IS SET TO 0 00088001
000096	9180 501A	0001A		99	TM	DSF,DS0	DATASET OPEN ? 00089001
00009A	4710 701E		000AC	100	BO	OTB00L1	YES, BRANCH 00090001
00009E	9602 501A		0001A	101	OI	DSF,DS6	NO, OPEN DATASET 00091001
0000A2	58F0 C11C		0011C	102	L	R15,IORLST(,R12)	00092001
0000A6	58F0 F010		00010	103	L	R15,OP(,R15)	00093001
0000AA	05EF			104	BALR	R14,R15	CALL DATASET OPEN ROUTINE 00094001
0000AC	5840 5008		00008	105	OTB00L1	R4,RE	00095001
0000B0	5830 5004		00004	106	L	R3,R	00096001
0000B4	4130 3007		00007	107	LA	R3,7(,R3)	00097001
0000B8	1943			108	CR	R4,R3	00098001
0000BA	47B0 706E		000FC	109	BNL	OTB00L2	SEVEN CHARACTER FREE IN RECORD 00099001
				110	*		00100001
				111	*	NOT ROOM ENOUGH TO STORE BOOLEAN VALUE IN RECORD	00101001
				112	*	FILL CURRENT RECORD BY BLANKS	00102001
				113	*	CALL FOR ROUTINE NEXTREC	00103001
				114	*		00104001
0000BE	5830 5004		00004	115	L	R3,R	00105001
0000C2	5840 5008		00008	116	L	R4,RE	00106001
0000C6	1B43			117	SR	R4,R3	00107001
0000C8	4780 7050		000DE	118	BZ	OTB00L7	00108001
0000CC	9240 3000		00000	119	MVI	0(R3),C' '	00109001
0000D0	0640			120	BCTR	R4,0	00110001
0000D2	0640			121	BCTR	R4,0	00111001
0000D4	1244			122	LTR	R4,R4	00112001
0000D6	4740 7050		000DE	123	BM	OTB00L7	00113001
0000DA	4440 70D6		00164	124	EX	R4,BLANKS	00114001
0000DE	58F0 C11C		0011C	125	OTB00L7	L R15,IORLST(,R12)	00115001
0000E2	58F0 F00C		0000C	126	L	R15,NX(,R15)	00116001
0000E6	05EF			127	BALR	R14,R15	00117001
0000E8	5830 5004		00004	128	L	R3,R	00118001
0000EC	4130 3007		00007	129	LA	R3,7(,R3)	00119001
0000F0	5930 5008		00008	130	C	R3,RE	00120001
0000F4	4720 70D0		0015E	131	BH	OERROR	TOO SHORT RECORD LENGTH 00121001
0000F8	9610 501A		0001A	132	OI	DSF,DS3	00122001
0000FC	5820 70DE		0016C	133	OTB00L2	L R2,ASOURCE	00123001
000100	1B99			134	SR	R9,R9	00124001
000102	4390 2000		00000	135	IC	R9,0(,R2)	00125001
000106	5830 5004		00004	136	L	R3,R	00126001
00010A	1299			137	LTR	R9,R9	00127001
00010C	4780 708C		0011A	138	BZ	OTB00L3	00128001
000110	D206 3000	70E2 00000	00170	139	MVC	0(L'TRUE,R3),TRUE	BOOLEAN VALUE TRUE OR FALSE 00129001
000116	47F0 7092		00120	140	B	OTB00L3A	TO RECORD WHICH ONE DEPENDING 00130001
				141	*		00131001
00011A	D206 3000	70E9 00000	00177	142	OTB00L3	MVC 0(L'FALSE,R3),FALSE	ON VALUE OF SOURCE 00132001
000120	4130 3007		00007	143	OTB00L3A	LA R3,7(,R3)	00133001
000124	5030 5004		00004	144	ST	R3,R	UPDATE CHARACTER POINTER 00134001
				145	*		00135001
				146	*	ROUTINE BLADEL	00136001
				147	*		00137001
000128	1B88			148	SR	R8,R8	00138001
00012A	4380 5018		00018	149	IC	R8,K	NUMBER OF DELIMITERS 00139001
00012E	5930 5008		00008	150	OTB00L4	C R3,RE	00140001
000132	4780 70BC		0014A	151	BE	OTB00L5	RECORD END REACHED 00141001
000136	9240 3000		00000	152	MVI	0(R3),C' '	FILL WITH BLANK 00142001
00013A	4130 3001		00001	153	LA	R3,1(,R3)	00143001
00013E	4680 70A0		0012E	154	BCT	R8,OTB00L4	00144001
000142	5030 5004		00004	155	ST	R3,R	UPDATE CHARACTER POINTER 00145001
000146	47F0 70C6		00154	156	B	OTB00L6	00146001
				157	*		00147001
				158	*	CALL NEXTREC	00148001
				159	*		00149001
00014A	58F0 C11C		0011C	160	OTB00L5	L R15,IORLST(,R12)	00150001
00014E	58F0 F00C		0000C	161	L	R15,NX(,R15)	00151001
000152	05EF			162	BALR	R14,R15	00152001
000154	58D0 70F6		00184	163	OTB00L6	L R13,SAVEAREA+4	00153001
				164	*		00154001
				165		RETURN (14,12)	RESTORE REGS AND RETURN 00155001
000158	98EC D00C		0000C	166+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
00015C	07FE			167+	BR	14	RETURN 01-RETUR
				168	*		00156001
00015E	18DC			169	OERROR	LR R13,R12	00157001
000160	47FC 0264		00264	170	B	FSAERR+38*4(R12)	00158001
				171	*		00159001
000164	D200 3001 3000 00001 00000		00000	172	BLANKS	MVC 1(0,R3),0(R3)	EXE INSTRUCTION 00160001
				173	*		00161001
00016A	0000						
00016C	00000000			174	ASOURCE	DC A(0)	00162001
				175	*		00163001
000170	7DE3D9E4C57D40			176	TRUE	DC C'''TRUE'''	00164001
000177	7DC6C1D3E2C57D			177	FALSE	DC C'''FALSE'''	00165001
				178	*		00166001
00017E	0000						
000180	0000000000000000			179	SAVEAREA	DC 18F'0'	00167001
				180	*		00168001
0001C8				181		LTORG	00169001
				182	*		00170001
				183	*	DSTABLE MAPPING DSECT	00171001
				184	*		00172001
				185		DSTABLE DSECT=YES	00173001
000000		00000 00024		186+	DSTABLE	DSECT	01-DSTAB
				187+	*		01-DSTAB
000000	00000000			188+	ADCB	DC F'0'	01-DSTAB
000004	00000000			189+	R	DC F'0'	01-DSTAB
000008	00000000			190+	RE	DC F'0'	01-DSTAB
00000C	00000000			191+	NBB	DC F'0'	01-DSTAB

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000010	00000000			192+BB	DC	F'0'	01-DSTAB
000014	0001			193+S	DC	H'1'	01-DSTAB
000016	0050			194+P	DC	H'80'	RECORD POINTER 01-DSTAB
000018	02			195+K	DC	X'02'	RECORD LENGTH 01-DSTAB
000019	00			196+Q	DC	X'00'	NUMBER OF BLANK DELIM CHARS 01-DSTAB
00001A	0000			197+DSF	DC	H'00'	NO OF RECORDS PER SECTION 01-DSTAB
				198+*			DATASET FLAGS 01-DSTAB
				199+*			01-DSTAB
				200+*			01-DSTAB
						DATASET FLAGS - DSF	
		00080		201+DS0	EQU	X'80'	DATASET OPEN 01-DSTAB
		00040		202+DS1	EQU	X'40'	01-DSTAB
		00020		203+DS2	EQU	X'20'	LAST I/O OUTPUT 01-DSTAB
		00010		204+DS3	EQU	X'10'	01-DSTAB
		00008		205+DS4	EQU	X'08'	01-DSTAB
		00004		206+DS5	EQU	X'04'	01-DSTAB
		00002		207+DS6	EQU	X'02'	OPEN FOR OUTPUT 01-DSTAB
		00001		208+DS7	EQU	X'01'	END OF FILE 01-DSTAB
				209+*			01-DSTAB
				210+*			DATASET FLAGS - DSF+1 01-DSTAB
				211+*			01-DSTAB
		00080		212+DS8	EQU	X'80'	END OF DATA 01-DSTAB
		00040		213+DS9	EQU	X'40'	01-DSTAB
		00020		214+DS10	EQU	X'20'	OPENED BY SYSACT 12 01-DSTAB
		00010		215+DS11	EQU	X'10'	INDICATE IHIERR-ROUT 01-DSTAB
		00008		216+DSE0D	EQU	X'08'	01-DSTAB
		00004		217+DSIOERR	EQU	X'04'	I/O ERROR 01-DSTAB
		00002		218+DS14	EQU	X'02'	DATASET OPENED 01-DSTAB
		00001		219+DS15	EQU	X'01'	CLOSE FROM IHIERR 01-DSTAB
				220+*			01-DSTAB
00001C	00000000			221+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			222+BL	DC	H'0'	LRECL+ TWO ARB 01-DSTAB
000022	0000			223+*	DC	H'0'	01-DSTAB
				224+*			01-DSTAB
		00024		225+DSTABLEL	EQU	*-DSTABLE	L'DSTABLE ENTRY 01-DSTAB
				226+*			01-DSTAB
				227 *			00174001
000000		00000	00120	228 FAS	DSECT		00175001
				229 *			00176001
				230	COPY	FSAREA	00177001
				231=*			00001001
				232=*			00002001
				233=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				234=*			00004001
				235=*		STATUS - LEVEL 2.1	00005001
				236=*****			00006001
				237=*			00007001
				238=*		COMMON DATA AREA	00008001
				239=*			00009001
				240=*		FSAREA	00010001
				241=*			00011001
				242=*****			00012001
				243=*			00013001
				244=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				245=*		MODULES DURING THE EXECUTION	00015001
				246=*			00016001
				247=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				248=*		SUBROUTINES) BY R12	00018001
				249=*			00019001
		00000		250=FSAREA	EQU	*	00020001
				251=*			00021001
				252=*		SAVE AREAS	00022001
				253=*			00023001
000000				254=	DS	18F	STANDARD SAVE AREA 00024001
		00048		255=ASAVE	EQU	*-FSAREA	ALTERNATE SAVE AREA USED BY 00025001
000048				256=	DS	18F	CERTAIN SUBROUTINES 00026001
				257=*			00027001
				258=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				259=*			00029001
		00090		260=FCTVALST	EQU	*-FSAREA	TEMPORARY STORAGE FOR 00030001
000090				261=	DS	D	FUNCTION VALUES 00031001
		00098		262=ASTLOC	EQU	*-FSAREA	DISPL FOR ADDR OF STAND LOCTN 00032001
000098	00000090			263=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		264=BRRST	EQU	*-FSAREA	TEMPORARY SAVE REG BRR 00034001
00009C		0009C		265=HW	EQU	BRRST	TEMPORARY HALFWORD STORAGE 00035001
				266=	DS	F	00036001
		000A0		267=PROLREG	EQU	*-FSAREA	STORAGE FOR PBT AND LAT WHEN 00037001
0000A0				268=	DS	2A	A PROCEDURE IS FORMAL PARAM 00038001
				269=*			00039001
				270=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				271=*			00041001
0000A8				272=	DS	0H	00042001
0000A8	00			273=	DC	X'00'	00043001
		000A9		274=PROLPBN	EQU	*-FSAREA	STORAGE FOR CALLED PBN 00044001
0000A9	00			275=	DC	X'00'	00045001
		000AA		276=EIGHT	EQU	*-FSAREA	CONST FOR REDUCING RAS 00046001
0000AA	0008			277=	DC	H'8'	00047001
				278=*			00048001
0000AC				279=	DS	0F	00049001
		000AC		280=ADSTAB	EQU	*-FSAREA	ADDR OF DSTABLE 00050001
0000AC				281=	DS	A	IN THE OBJECT PROGRAM 00051001
		000B0		282=ANOTTAB	EQU	*-FSAREA	ADDR OF NOTE TABLE 00052001
0000B0				283=	DS	A	(INSERTED BY THE OPEN ROUTINE) 00053001
				284=*			00054001
		000B4		285=IHIFAST	EQU	*	00055001
		000B4		286=PGOPSW	EQU	*-FSAREA	PROGRAM CHECK OLD PSW 00056001
0000B4				287=	DS	2F	00057001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000BC	00000000	000BC		288=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR 00058001
				289=	DC	F'0'	00059001
0000C0		000C0		290=SCRC5	EQU	*-FSAREA	SEMICOLON NUMBER 00060001
				291=	DS	H	00061001
		000C2		292=DT5W	EQU	*-FSAREA	OPTION SWITCHES 00062001
		000C2		293=OPT5W	EQU	DT5W	00063001
0000C2 00				294=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20 00064001
		000C3		295=FSAERCOD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE 00065001
0000C3				296=	DS	C	00066001
				297=*			00067001
				298=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				299=*			00069001
0000C4				300=	DS	0F	00070001
		000C4		301=IHIFSARS	EQU	*	00071001
		000C4		302=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8 00072001
0000C4				303=	DS	F	00073001
		000C8		304=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP 00074001
0000C8				305=	DS	F	00075001
		000CC		306=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8 00076001
0000CC				307=	DS	F	00077001
		000D0		308=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM 00078001
0000D0				309=	DS	F	00079001
				310=*			00080001
				311=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				312=*			00082001
0000D4				313=BRLIST	DS	0F	00083001
		000D4		314=CAP1	EQU	*-FSAREA	FIRST PART CAPS 00084001
0000D4 4700 0000		00000	00000	315=	NOP	0	00085001
		000D8		316=CAP2	EQU	*-FSAREA	SECOND PART CAPS 00086001
0000D8 4700 0000		00000	00000	317=	NOP	0	00087001
		000DC		318=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY 00088001
		000DC		319=PROLOGFP	EQU	PROLOGP	00089001
0000DC 4700 0000		00000	00000	320=	NOP	0	00090001
		000E0		321=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY 00091001
0000E0 4700 0000		00000	00000	322=	NOP	0	00092001
		000E4		323=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM 00093001
0000E4 4700 0000		00000	00000	324=	NOP	0	00094001
		000E8		325=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY 00095001
0000E8 4700 0000		00000	00000	326=	NOP	0	00096001
		000EC		327=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY 00097001
0000EC 4700 0000		00000	00000	328=	NOP	0	00098001
		000F0		329=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3 00099001
0000F0 4700 0000		00000	00000	330=	NOP	0	00100001
		000F4		331=CSWE1	EQU	*-FSAREA	FIRST PART CSWES 00101001
0000F4 4700 0000		00000	00000	332=	NOP	0	00102001
		000F8		333=CSWE2	EQU	*-FSAREA	SECOND PART CSWES 00103001
0000F8 4700 0000		00000	00000	334=	NOP	0	00104001
		000FC		335=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE 00105001
0000FC 4700 0000		00000	00000	336=	NOP	0	00106001
		00100		337=TRACE	EQU	*-FSAREA	00107001
000100 D200 0000 0000		00000	00000	338=	MVC	0(0),0	00108001
000106 4700 0000		00000	00000	339=	NOP	0	00109001
00010A 4700 0000		00000	00000	340=	NOP	0	00110001
		0010E		341=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT 00111001
00010E 4700 0000		00000	00000	342=	NOP	0	00112001
		00112		343=BCR	EQU	*-FSAREA	00113001
000112 0700				344=	BCR	0,0	VARIABLE CONDITIONAL BRANCH 00114001
		00114		345=GETMSTO	EQU	*-FSAREA	00115001
000114 4700 0000		00000	00000	346=	NOP	0	00116001
				347=*			00117001
		00118		348=VALUCALL	EQU	*-FSAREA	00118001
000118 4700 0000		00000	00000	349=	NOP	0	00119001
		0011C		350=IORLST	EQU	*-FSAREA	00120001
00011C 4700 0000		00000	00000	351=	NOP	0	00121001
				352=*			00122001
		001CC		353=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST 00123001
				354=*			00124001
				355=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				356=*			00126001
		0020C		357=OUTOFB	EQU	FSAERR+4*16	00127001
00218				358=NUMBIND	EQU	FSAERR+4*19	00128001
00208				359=ARRAYBD	EQU	FSAERR+4*15	00129001
0026C				360=ERROR40	EQU	FSAERR+4*40	00130001
00224				361=OERR22	EQU	FSAERR+4*22	00131001
00210				362=ENDLESL	EQU	FSAERR+4*17	00132001
00220				363=OERR21	EQU	FSAERR+4*21	00133001
				364=*			00134001
				365 *			00178001
				366 *		REGISTER EQUATES	00179001
				367 *			00180001
				368		IEZREGS	00181001
		00000		369+R0	EQU	0	01-IEZRE
		00001		370+R1	EQU	1	01-IEZRE
		00002		371+R2	EQU	2	01-IEZRE
		00003		372+R3	EQU	3	01-IEZRE
		00004		373+R4	EQU	4	01-IEZRE
		00005		374+R5	EQU	5	01-IEZRE
		00006		375+R6	EQU	6	01-IEZRE
		00007		376+R7	EQU	7	01-IEZRE
		00008		377+R8	EQU	8	01-IEZRE
		00009		378+R9	EQU	9	01-IEZRE
		0000A		379+R10	EQU	10	01-IEZRE
		0000B		380+R11	EQU	11	01-IEZRE
		0000C		381+R12	EQU	12	01-IEZRE
		0000D		382+R13	EQU	13	01-IEZRE
		0000E		383+R14	EQU	14	01-IEZRE

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```
384+R15      EQU    15
385 *
386          END
```



Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.21
ASOURCE	4	0000016C	00000001	A	A		174	76M 133			
BLANKS	6	00000164	00000001	I			172	124X			
BRRST	1	0000009C		U			264	265			
COMMON	4	0000008E	00000001	I			97	66 68U 77B 93 95U			
DSF	2	0000001A	FFFFFFF	H	H		197	97M 98M 99 101M 132M			
DSTABLE	1	00000000	FFFFFFF	J			186	52U 225			
DS0	1	00000080		U			201	99			
DS2	1	00000020		U			203	97			
DS3	1	00000010		U			204	97 132			
DS6	1	00000002		U			207	101			
DS7	1	00000001		U			208	98			
DTSW	1	000000C2		U			292	293			
EV	1	00000008		U			47	73			
FALSE	7	00000177	00000001	C	C		177	142			
FCTVALST	1	00000090		U			260	263			
FSAERR	1	000001CC		U			353	170B 357 358 359 360 361 362 363			
FSAREA	1	00000000	FFFFFFFE	U			250	255 260 262 263 264 267 274 276 280 282 286 288			
								290 292 295 302 304 306 308 314 316 318 321 323			
								325 327 329 331 333 335 337 341 343 345 348 350			
IHIIOBOAR	4	00000052	00000001	I			82	41 88U			
IHIIOBOOL	1	00000000	00000001	J			39	61U			
IORLST	1	0000011C		U			350	72 102 125 160			
K	1	00000018	FFFFFFF	X	X		195	149			
NX	1	0000000C		U			48	126 161			
OERROR	2	0000015E	00000001	I			169	131B			
OP	1	00000010		U			49	103			
OTBOOL1	4	000000AC	00000001	I			105	100B			
OTBOOL2	4	000000FC	00000001	I			133	109B			
OTBOOL3	6	0000011A	00000001	I			142	138B			
OTBOOL3A	4	00000120	00000001	I			143	140B			
OTBOOL4	4	0000012E	00000001	I			150	154B			
OTBOOL5	4	0000014A	00000001	I			160	151B			
OTBOOL6	4	00000154	00000001	I			163	156B			
OTBOOL7	4	000000DE	00000001	I			125	118B 123B			
PROLOGP	1	000000DC		U			318	319			
R	4	00000004	FFFFFFF	F	F		189	106 115 128 136 144M 155M			
RE	4	00000008	FFFFFFF	F	F		190	105 116 130 150			
R1	1	00000001		U			370	75M 76			
R12	1	0000000C		U			381	62M 64 65 72 102 125 160 169 170			
R13	1	0000000D		U			382	62 63M 64 65 89 90M 91 92 163M 169M			
R14	1	0000000E		U			383	74M 104M 127M 162M			
R15	1	0000000F		U			384	61U 67D 72M 73M 74B 88U 94D 102M 103M 104B 125M 126M			
								127B 160M 161M 162B			
R2	1	00000002		U			371	133M 135			
R3	1	00000003		U			372	106M 107M 108 115M 117 119 128M 129M 130 136M 139 142			
								143M 144 150 152 153M 155 172			
R4	1	00000004		U			373	105M 108 116M 117M 120M 121M 122M 124			
R5	1	00000005		U			374	52U			
R7	1	00000007		U			376	66M 68U 79D 89M 91 92 93M 95U			
R8	1	00000008		U			377	148M 149M 154M			
R9	1	00000009		U			378	134M 135M 137M			
SAVEAREA	4	00000180	00000001	F	F		179	63 90 163			
TRUE	7	00000170	00000001	C	C		176	139			

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

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0(0)	59	86	166M																			
1(1)	59	75M	76	86	166M																	
2(2)	59	86	133M	135	166M																	
3(3)	59	86	106M	107M	108	115M	117	119	128M	129M	130	136M	139	142	143M	144	150	152	153M	155	166M	172
4(4)	59	86	105M	108	116M	117M	120M	121M	122M	124	166M											
5(5)	52U	59	86	166M																		
6(6)	59	86	166M																			
7(7)	59	66M	68U	79D	86	89M	91	92	93M	95U	166M											
8(8)	59	86	148M	149M	154M	166M																
9(9)	59	86	134M	135M	137M	166M																
10(A)	59	86	166M																			
11(B)	59	86	166M																			
12(C)	59	62M	64	65	72	86	102	125	160	166M	169	170N										
13(D)	59	62	63M	64	65	86	89	90M	91	92	163M	166	169M									
14(E)	59	74M	86	104M	127M	162M	166M	167B														
15(F)	55B	59	61U	67D	72M	73M	74B	82B	86	88U	94D	102M	103M	104B	125M	126M	127B	160M	161M	162B	166M	

Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.21
DSTABLE	00000024	FFFFFFFF	186	4	DSTABLE			
FAS	00000120	FFFFFFFE	228		PRIMARY INPUT			

Con	Source	Members
-----	--------	---------

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1	SYS1.MACLIB	
	IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB	
3	SYSD.ALGOLFRT.ASM	
4	SYSD.ALGOLFRT.MACLIB	
	DSTABLE	FSAREA
5	SYS1.AMODGEN	

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
52		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001A	155	DSTABLE,R5			
61		USING	Ordinary	00000001	00000000	00001000	15	00180	66	IHI0B00L,R15			
67		DROP					15			R15			
68		USING	Ordinary	00000001	0000008E	00001000	7	000DE	77	COMMON,R7			
79		DROP					7			R7			
88		USING	Ordinary	00000001	00000052	00001000	15	0012E	93	IHI0BOAR,R15			
94		DROP					15			R15			
95		USING	Ordinary	00000001	0000008E	00001000	7	000F6	163	COMMON,R7			

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIOB0      PROCSTEP: X390

Primary input: lines      1 to      183 of SYSD.ALGOLFRT.ASM(IHIOB0)

SYSLIB library records read: 362

SYSUT1 work file size: 35266 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 14640 bytes

SYSLIN file records written: 11

TXA000I Return code 0, elapsed time 0.26 seconds.

No uninitialized areas found

**IHIOIN**

**LEVEL**

**V2.M01**



TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIOIN)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00198
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	TRANSFER NUMBER FROM INTEGER INDICATED BY SECOND ACTUAL		00008001
				9 *	PARAMETER TO OUTPUT BUFFER IN ZONED DECIMAL FORM		00009001
				10 *			00010001
				11 *	ENTRY POINTS -		00011001
				12 *	IHIOINTG -	FROM GENERATED OBJECT MODULE	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *	DATA PASSED BY NAME		00015001
				16 *	IHIOINAR -	FROM ARRAY MODULE IHIOIA	00016001
				17 *	LA	R7,DATA	00017001
				18 *	BALR	R14,R15	00018001
				19 *	DATA PASSED BY NAME		00019001
				20 *			00020001
				21 *	INPUT -	N/A	00021001
				22 *			00022001
				23 *	OUTPUT -	N/A	00023001
				24 *			00024001
				25 *	EXTERNAL ROUTINES -		00025001
				26 *			00026001
				27 *	IHIOR -	EVALUATE DATASET NUMBER	00027001
				28 *	-	OPEN DATASET	00028001
				29 *	-	CHANGE TO NEXT OUTPUT RECORD	00029001
				30 *	CNVRI -	CONVERT REAL TO INTEGER	00030001
				31 *			00031001
				32 *	EXIT -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00032001
				33 *	-	ERROR - TOO LONG RECORD NO 38	00033001
				34 *	BRANCH TO	IHIFSA	00034001
				35 *	L	R13,IHIFSA	00035001
				36 *	B	FSAERR+XX*4(13) XX ERROR NO	00036001
				37 *			00037001
				38 *	TABLES/WORK AREAS -	N/A	00038001
				39 *			00039001
				40 *	ATTRIBUTES -	SERIALY REUSABLE	00040001
				41 *			00041001
				42 *	NOTES -		00042001
				43 *	LINKING TO IHIOINAR DEVIATES FROM STANDARD CHARACTER		00043001
				44 *	DEPENDENCE		00044001
				45 *			00045001
000000		00000	001F8	46	IHIOINTE	CSECT	00046001
				47 *			00047001
				48	ENTRY	IHIOINTG	00048001
				49	ENTRY	IHIOINAR	00049001
				50 *			00050001
		00000		51	FPR0	EQU 0 FPRO	00051001
				52 *			00052001
	R:5	00000		53	USING	DSTABLE,R5	00053001
				54 *			00054001
				55 *	DISPLACEMENTS IN	ADRLST IN IHIFSA	00055001
				56 *			00056001
		00000		57	CI	EQU 0 IHIORCI	00057001
		00004		58	CL	EQU 4 IHIORCL	00058001
		00008		59	EV	EQU 8 IHIIOREV	00059001
		0000C		60	NX	EQU 12 IHIORNX	00060001
		00010		61	OP	EQU 16 IHIOROP	00061001
		00014		62	OQ	EQU 20 IHIOROQ	00062001
				63 *			00063001
				64	IHIOINAR	SAVE (14,12),,'IHIOINAR LEVEL 2.1 &SYSDATE &SYSTIME'	00064001
000000	47F0 F026		00026	65+	IHIOINAR	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			66+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D6C9D5C1D9			67+	DC	CL32,'IHIOINAR LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			68+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	69+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				70 *			00065001
		R:F	00000	71	USING	IHIOINAR,R15	00066001
00002A	18AD			72	LR	R10,R13 CHAIN SAVE AREAS	00067001
00002C	41D0 F1B0		001B0	73	LA	R13,SAVEAREA	00068001
000030	50A0 D004		00004	74	ST	R10,4(,R13)	00069001
000034	50D0 A008		00008	75	ST	R13,8(,R10)	00070001
000038	41A0 F07C		0007C	76	LA	R10,COMMON	00071001
				77	DROP	R15	00072001
		R:A	0007C	78	USING	COMMON,R10	00073001
00003C	47F0 A00E		0008A	79	B	SOUINTA	00074001
				80 *			00075001
				81	DROP	R10	00076001
				82 *			00077001
				83	IHIOINTG	SAVE (14,12),,'IHIOINTG LEVEL 2.1 &SYSDATE &SYSTIME'	00078001
000040	47F0 F026		00026	84+	IHIOINTG	B 38(0,15) BRANCH AROUND ID	01-SAVE
000044	21			85+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000045	C9C8C9D6C9D5E3C7			86+	DC	CL32,'IHIOINTG LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000065	F1			87+	DC	CL1'1' IDENTIFIER	01-SAVE
000066	90EC D00C		0000C	88+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				89 *			00079001
		R:F	00040	90	USING	IHIOINTG,R15	00080001
00006A	18CD			91	LR	R12,R13 R12 -> FSA TO FSA REG	00081001
00006C	41D0 F170		001B0	92	LA	R13,SAVEAREA	00082001
000070	50C0 D004		00004	93	ST	R12,4(,R13)	00083001
000074	50D0 C008		00008	94	ST	R13,8(,R12)	00084001
000078	41A0 F03C		0007C	95	LA	R10,COMMON	00085001
				96	DROP	R15	00086001
		R:A	0007C	97	USING	COMMON,R10	00087001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				98 *			00088001
				99 *	EVALUATE DATASET NUMBER (EVDSN)		00089001
				100 *			00090001
00007C	58F0 C11C		0011C	101 COMMON	L R15,IORLST(,R12)		00091001
000080	58F0 F008		00008	102	L R15,EV(,R15)		00092001
000084	05EF			103	BALR R14,R15		00093001
				104 *			00094001
				105 *	EVALUATE ADDR OF SOURCE		00095001
				106 *	TEST IF SOURCE NUMBER IS REAL		00096001
				107 *			00097001
000086	5870 1004		00004	108 SOUINT	L R7,4(,R1)	ADDR OF SOURCE	00098001
00008A	9630 501A	0001A		109 SOUINTA	OI DSF,DS2+DS3	DS2, DS3 = 1	00099001
00008E	94FE 501A	0001A		110	NI DSF,255-DS7	TURN OFF EOF DS7	00100001
000092	1277			111	LTR R7,R7		00101001
000094	4720 A03A		000B6	112	BP INT1		00102001
				113 *			00103001
				114 *	CALL CONVERSION ROUTINE		00104001
				115 *			00105001
000098	7800 7000		00000	116	LE FPR0,0(,R7)		00106001
00009C	9120 C0C2	000C2		117	TM OPTSW(R12),X'20'	LONG OR SHORT PRECISION ?	00107001
0000A0	4710 A02C		000A8	118	BO CONVA	SHORT PRECISION STATED	00108001
0000A4	6800 7000		00000	119	LD FPR0,0(,R7)	LONG PRECISION STATED	00109001
0000A8	58F0 C11C		0011C	120 CONVA	L R15,IORLST(,R12)		00110001
0000AC	58F0 F000		00000	121	L R15,CI(,R15)		00111001
0000B0	05EF			122	BALR R14,R15		00112001
0000B2	47F0 A03E		000BA	123	B DSTEST		00113001
				124 *			00114001
0000B6	5800 7000		00000	125 INT1	L R0,0(,R7)	NUMBER IN R0	00115001
				126 *			00116001
				127 *	DATASET OPEN ?		00117001
				128 *			00118001
0000BA	9180 501A	0001A		129 DSTEST	TM DSF,DS0		00119001
0000BE	4710 A054		000D0	130	BO NOCLO1	DCB IS OPEN	00120001
0000C2	9602 501A	0001A		131	OI DSF,DS6	DS6 = 1	00121001
0000C6	58F0 C11C		0011C	132	L R15,IORLST(,R12)		00122001
0000CA	58F0 F010		00010	133	L R15,OP(,R15)		00123001
0000CE	05EF			134	BALR R14,R15	OPEN DATASET	00124001
				135 *			00125001
				136 *	RECORD ACCEPT 11 DIGITS ?		00126001
				137 *	IF NOT FILL RECORD WITH BLANKS AND CALL NEXTREC		00127001
				138 *			00128001
0000D0	5820 5004		00004	139 NOCLO1	L R2,R	CHARACTER POINTER	00129001
0000D4	4130 200B		0000B	140	LA R3,11(,R2)		00130001
0000D8	5930 5008		00008	141	C R3,RE		00131001
0000DC	47D0 A098		00114	142	BNH NONR1	BUFFER CAN ACCEPT 11 DIGITS	00132001
0000E0	5890 5008		00008	143	L R9,RE		00133001
0000E4	1B92			144	SR R9,R2		00134001
0000E6	47D0 A07A		000F6	145	BNP GETREC		00135001
0000EA	9240 2000	00000		146 BLANKS	MVI 0(R2),C' '	BLANK IN BUFFER	00136001
0000EE	4120 2001		00001	147	LA R2,1(,R2)	INCREASE R	00137001
0000F2	4690 A06E		000EA	148	BCT R9,BLANKS		00138001
0000F6	58F0 C11C		0011C	149 GETREC	L R15,IORLST(,R12)		00139001
0000FA	58F0 F00C		0000C	150	L R15,NX(,R15)		00140001
0000FE	05EF			151	BALR R14,R15		00141001
000100	5820 5004		00004	152	L R2,R		00142001
000104	4130 200B		0000B	153	LA R3,11(,R2)		00143001
000108	5930 5008		00008	154	C R3,RE		00144001
00010C	4720 A122		0019E	155	BH OINERR	TOO SHORT RECORD LENGTH	00145001
000110	9610 501A	0001A		156	OI DSF,DS3		00146001
				157 *			00147001
				158 *	TEST SOURCE NUMBER AND CONVERT TO DECIMAL		00148001
				159 *			00149001
000114	1200			160 NONR1	LTR R0,R0		00150001
000116	4780 A102		0017E	161	BZ OUTINT0	NUMBER IS ZERO	00151001
00011A	4E00 A12C		001A8	162	CVD R0,BUFF		00152001
00011E	F395 2001	A12E 00001	001AA	163	UNPK 1(10,R2),BUFF+2(6)		00153001
000124	96F0 200A		0000A	164	OI 10(R2),X'F0'	ZONE INSERTED	00154001
				165 *			00155001
000128	95F0 2001		00001	166 LEAD0	CLI 1(R2),C'0'		00156001
00012C	4770 A0C0		0013C	167	BNE TERMIN0		00157001
000130	9240 2000	00000		168	MVI 0(R2),C' '	LEADING ZERO IS BLANKED	00158001
000134	4120 2001		00001	169	LA R2,1(,R2)		00159001
000138	47F0 A0AC		00128	170	B LEAD0		00160001
				171 *			00161001
00013C	1200			172 TERMIN0	LTR R0,R0		00162001
00013E	4720 A0CE		0014A	173	BP POSITIVE		00163001
000142	9260 2000	00000		174	MVI 0(R2),C' - '	- SIGN INSERTED	00164001
000146	47F0 A0D2		0014E	175	B TERMIN1		00165001
				176 *			00166001
00014A	924E 2000		00000	177 POSITIVE	MVI 0(R2),C' + '	+ SIGN INSERTED	00167001
				178 *			00168001
00014E	1B44			179 TERMIN1	SR R4,R4		00169001
000150	4340 5018		00018	180	IC R4,K	VALUE OF K IN REGISTER	00170001
000154	5930 5008		00008	181 TERMIN1A	C R3,RE		00171001
000158	4780 A114		00190	182	BE RECEND	RECORD END IS REACHED	00172001
00015C	9240 3000	00000		183	MVI 0(R3),C' '	FILL WITH BLANKS	00173001
000160	4130 3001		00001	184	LA R3,1(,R3)		00174001
000164	4640 A0D8		00154	185	BCT R4,TERMIN1A		00175001
000168	5930 5008		00008	186	C R3,RE		00176001
00016C	4780 A114		00190	187	BE RECEND		00177001
000170	5030 5004		00004	188	ST R3,R		00178001
000174	58D0 A138		001B4	189 TERMIN1B	L R13,SAVEAREA+4		00179001
				190 *			00180001
				191	RETURN (14,12)	RESTORE REGS AND RETURN	00181001
000178	98EC D00C		0000C	192+	LM 14,12,12(13)	RESTORE THE REGISTERS	01-RETUR
00017C	07FE			193+	BR 14	RETURN	01-RETUR

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				194 *			00182001
				195 *	OUTINTEGER	NUMBER IS 0	00183001
				196 *			00184001
00017E	9240 2000	00000		197 OUTINT0	MVI	0(R2),C' '	00185001
000182	D208 2001 2000	00001	00000	198	MVC	1(9,R2),0(R2)	00186001
000188	92F0 200A	0000A		199	MVI	10(R2),C'0'	00187001
00018C	47F0 A0D2		0014E	200	B	TERMIN1	00188001
				201 *			00189001
000190	58F0 C11C		0011C	202 RECD	L	R15,IORLST(,R12)	00190001
000194	58F0 F00C		0000C	203	L	R15,NX(,R15)	00191001
000198	05EF			204	BALR	R14,R15	00192001
00019A	47F0 A0F8		00174	205	B	TERMIN1B	00193001
				206 *			00194001
				207 *	RECORD	LENGTH < 11	00195001
				208 *			00196001
00019E	18DC			209 OINERR	LR	R13,R12	00197001
0001A0	47FC 0264		00264	210	B	FSAERR+38*4(R12)	00198001
				211 *			00199001
0001A4	00000000						
0001A8	0000000000000000			212 BUFF	DC	D'0'	00200001
				213 *			00201001
0001B0	0000000000000000			214 SAVEAREA	DC	18F'0'	00202001
				215 *			00203001
0001F8				216	LTORG		00204001
				217 *			00205001
				218	DSTABLE	DSECT=YES	00206001
000000		00000	00024	219+DSTABLE	DSECT		01-DSTAB
				220+*			01-DSTAB
000000	00000000			221+ADCB	DC	F'0'	01-DSTAB
000004	00000000			222+R	DC	F'0'	01-DSTAB
000008	00000000			223+RE	DC	F'0'	01-DSTAB
00000C	00000000			224+NBB	DC	F'0'	01-DSTAB
000010	00000000			225+BB	DC	F'0'	01-DSTAB
000014	0001			226+S	DC	H'1'	01-DSTAB
000016	0050			227+P	DC	H'80'	01-DSTAB
000018	02			228+K	DC	X'02'	01-DSTAB
000019	00			229+Q	DC	X'00'	01-DSTAB
00001A	0000			230+DSF	DC	H'00'	01-DSTAB
				231+*			01-DSTAB
				232+*	DATASET	FLAGS - DSF	01-DSTAB
				233+*			01-DSTAB
		00080		234+DS0	EQU	X'80'	01-DSTAB
		00040		235+DS1	EQU	X'40'	01-DSTAB
		00020		236+DS2	EQU	X'20'	01-DSTAB
		00010		237+DS3	EQU	X'10'	01-DSTAB
		00008		238+DS4	EQU	X'08'	01-DSTAB
		00004		239+DS5	EQU	X'04'	01-DSTAB
		00002		240+DS6	EQU	X'02'	01-DSTAB
		00001		241+DS7	EQU	X'01'	01-DSTAB
				242+*			01-DSTAB
				243+*	DATASET	FLAGS - DSF+1	01-DSTAB
				244+*			01-DSTAB
		00080		245+DS8	EQU	X'80'	01-DSTAB
		00040		246+DS9	EQU	X'40'	01-DSTAB
		00020		247+DS10	EQU	X'20'	01-DSTAB
		00010		248+DS11	EQU	X'10'	01-DSTAB
		00008		249+DSEOD	EQU	X'08'	01-DSTAB
		00004		250+DSIOERR	EQU	X'04'	01-DSTAB
		00002		251+DS14	EQU	X'02'	01-DSTAB
		00001		252+DS15	EQU	X'01'	01-DSTAB
				253+*			01-DSTAB
00001C	00000000			254+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			255+BL	DC	H'0'	01-DSTAB
000022	0000			256+	DC	H'0'	01-DSTAB
				257+*			01-DSTAB
		00024		258+DSTABLEL	EQU	*-DSTABLE	01-DSTAB
				259+*			01-DSTAB
				260 *			00207001
000000		00000	00120	261 FSAAREA	DSECT		00208001
				262 *			00209001
				263	COPY	FSAREA	00210001
				264=*			00001001
				265=*	COMPONENT	ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				266=*			00003001
				267=*	STATUS	- LEVEL 2.1	00004001
				268=*			00005001
				269=*****			00006001
				270=*			00007001
				271=*	COMMON	DATA AREA	00008001
				272=*			00009001
				273=*	FSAREA		00010001
				274=*			00011001
				275=*****			00012001
				276=*			00013001
				277=*	DATA	THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				278=*	MODULES	DURING THE EXECUTION	00015001
				279=*			00016001
				280=*	ADDRESSED	BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				281=*	SUBROUTINES)	BY R12	00018001
				282=*			00019001
		00000		283=FSAREA	EQU	*	00020001
				284=*			00021001
				285=*	SAVE	AREAS	00022001
				286=*			00023001
000000				287=	DS	18F	00024001
		00048		288=ASAVE	EQU	*-FSAREA	00025001

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000048				289=	DS	18F	CERTAIN SUBROUTINES	00026001	
				290=*				00027001	
				291=*		MISCELLANEOUS WORK AREAS AND CONSTANTS		00028001	
				292=*				00029001	
		000090		293=FCTVALST	EQU	*-FSAREA	TEMPORARY STORAGE FOR	00030001	
000090				294=	DS	D	FUNCTION VALUES	00031001	
		000098		295=ASTLOC	EQU	*-FSAREA	DISPL FOR ADDR OF STAND LOCTN	00032001	
000098	00000090			296=	DC	A(FSAREA+FCTVALST)		00033001	
		00009C		297=BRRST	EQU	*-FSAREA	TEMPORARY SAVE REG BRR	00034001	
		00009C		298=HW	EQU	BRRST	TEMPORARY HALFWORD STORAGE	00035001	
00009C				299=	DS	F		00036001	
		0000A0		300=PROLREG	EQU	*-FSAREA	STORAGE FOR PBT AND LAT WHEN	00037001	
0000A0				301=	DS	2A	A PROCEDURE IS FORMAL PARAM	00038001	
				302=*				00039001	
				303=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE		00040001	
				304=*				00041001	
0000A8				305=	DS	0H		00042001	
0000A8	00			306=	DC	X'00'		00043001	
		0000A9		307=PROLPBN	EQU	*-FSAREA	STORAGE FOR CALLED PBN	00044001	
0000A9	00			308=	DC	X'00'		00045001	
		0000AA		309=EIGHT	EQU	*-FSAREA	CONST FOR REDUCING RAS	00046001	
0000AA	0008			310=	DC	H'8'		00047001	
				311=*				00048001	
0000AC				312=	DS	0F		00049001	
		0000AC		313=ADSTAB	EQU	*-FSAREA	ADDR OF DSTABLE	00050001	
0000AC				314=	DS	A	IN THE OBJECT PROGRAM	00051001	
		0000B0		315=ANOTTAB	EQU	*-FSAREA	ADDR OF NOTE TABLE	00052001	
0000B0				316=	DS	A	(INSERTED BY THE OPEN ROUTINE)	00053001	
				317=*				00054001	
		0000B4		318=IHIFFAST	EQU	*		00055001	
		0000B4		319=PGOPSW	EQU	*-FSAREA	PROGRAM CHECK OLD PSW	00056001	
0000B4				320=	DS	2F		00057001	
		0000BC		321=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR	00058001	
0000BC	00000000			322=	DC	F'0'		00059001	
		0000C0		323=SCRCS	EQU	*-FSAREA	SEMICOLON NUMBER	00060001	
0000C0				324=	DS	H		00061001	
		0000C2		325=DTSW	EQU	*-FSAREA	OPTION SWITCHES	00062001	
		0000C2		326=OPTSW	EQU	DTSW		00063001	
0000C2	00			327=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20	00064001	
		0000C3		328=FSAERCOD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE	00065001	
0000C3				329=	DS	C		00066001	
				330=*				00067001	
				331=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER		00068001	
				332=*				00069001	
0000C4				333=	DS	0F		00070001	
		0000C4		334=IHIFSARS	EQU	*		00071001	
		0000C4		335=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8	00072001	
0000C4				336=	DS	F		00073001	
		0000C8		337=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP	00074001	
0000C8				338=	DS	F		00075001	
		0000CC		339=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8	00076001	
0000CC				340=	DS	F		00077001	
		0000D0		341=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM	00078001	
0000D0				342=	DS	F		00079001	
				343=*				00080001	
				344=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES		00081001	
				345=*				00082001	
0000D4				346=BRLIST	DS	0F		00083001	
		0000D4		347=CAP1	EQU	*-FSAREA	FIRST PART CAPS	00084001	
0000D4	4700 0000		000000	348=	NOP	0		00085001	
		0000D8		349=CAP2	EQU	*-FSAREA	SECOND PART CAPS	00086001	
0000D8	4700 0000		000000	350=	NOP	0		00087001	
		0000DC		351=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY	00088001	
		0000DC		352=PROLOGFP	EQU	PROLOGP		00089001	
0000DC	4700 0000		000000	353=	NOP	0		00090001	
		0000E0		354=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY	00091001	
0000E0	4700 0000		000000	355=	NOP	0		00092001	
		0000E4		356=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM	00093001	
0000E4	4700 0000		000000	357=	NOP	0		00094001	
		0000E8		358=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY	00095001	
0000E8	4700 0000		000000	359=	NOP	0		00096001	
		0000EC		360=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY	00097001	
0000EC	4700 0000		000000	361=	NOP	0		00098001	
		0000F0		362=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3	00099001	
0000F0	4700 0000		000000	363=	NOP	0		00100001	
		0000F4		364=CSWE1	EQU	*-FSAREA	FIRST PART CSWES	00101001	
0000F4	4700 0000		000000	365=	NOP	0		00102001	
		0000F8		366=CSWE2	EQU	*-FSAREA	SECOND PART CSWES	00103001	
0000F8	4700 0000		000000	367=	NOP	0		00104001	
		0000FC		368=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE	00105001	
0000FC	4700 0000		000000	369=	NOP	0		00106001	
		001000		370=TRACE	EQU	*-FSAREA		00107001	
000100	D200 0000 0000	000000	000000	371=	MVC	0(0),0		00108001	
000106	4700 0000		000000	372=	NOP	0		00109001	
00010A	4700 0000		000000	373=	NOP	0		00110001	
		00100E		374=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT	00111001	
00010E	4700 0000		000000	375=	NOP	0		00112001	
		001112		376=BCR	EQU	*-FSAREA		00113001	
000112	0700			377=	BCR	0,0	VARIABLE CONDITIONAL BRANCH	00114001	
		001114		378=GETMSTO	EQU	*-FSAREA		00115001	
000114	4700 0000		000000	379=	NOP	0		00116001	
				380=*				00117001	
		001118		381=VALUCALL	EQU	*-FSAREA		00118001	
000118	4700 0000		000000	382=	NOP	0		00119001	
		00111C		383=IORLST	EQU	*-FSAREA		00120001	
00011C	4700 0000		000000	384=	NOP	0		00121001	

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				385=*			00122001
	001CC			386=FSAERR	EQU	X'1CC' DISPL FOR ERROR LIST	00123001
				387=*			00124001
				388=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				389=*			00126001
	0020C			390=OUTOFB	EQU	FSAERR+4*16	00127001
	00218			391=NUMBIND	EQU	FSAERR+4*19	00128001
	00208			392=ARRAYBD	EQU	FSAERR+4*15	00129001
	0026C			393=ERROR40	EQU	FSAERR+4*40	00130001
	00224			394=OERR22	EQU	FSAERR+4*22	00131001
	00210			395=ENDLESL	EQU	FSAERR+4*17	00132001
	00220			396=OERR21	EQU	FSAERR+4*21	00133001
				397=*			00134001
				398 *			00211001
				399 *	REGISTER	EQUATES	00212001
				400 *			00213001
				401	IEZREGS		00214001
	00000			402+R0	EQU	0	01-IEZRE
	00001			403+R1	EQU	1	01-IEZRE
	00002			404+R2	EQU	2	01-IEZRE
	00003			405+R3	EQU	3	01-IEZRE
	00004			406+R4	EQU	4	01-IEZRE
	00005			407+R5	EQU	5	01-IEZRE
	00006			408+R6	EQU	6	01-IEZRE
	00007			409+R7	EQU	7	01-IEZRE
	00008			410+R8	EQU	8	01-IEZRE
	00009			411+R9	EQU	9	01-IEZRE
	0000A			412+R10	EQU	10	01-IEZRE
	0000B			413+R11	EQU	11	01-IEZRE
	0000C			414+R12	EQU	12	01-IEZRE
	0000D			415+R13	EQU	13	01-IEZRE
	0000E			416+R14	EQU	14	01-IEZRE
	0000F			417+R15	EQU	15	01-IEZRE
				418 *			00215001
				419	END		00216001

NTE		Symbol Cross Reference							PAGE	
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04 2012/08/17 13.21	
BLANKS	4	000000EA	00000001	I			146	148B		
BRRST	1	0000009C		U			297	298		
BUFF	8	000001A8	00000001	D	D		212	162M 163		
CI	1	00000000		U			57	121		
COMMON	4	0000007C	00000001	I			101	76 78U 95 97U		
CONVA	4	000000A8	00000001	I			120	118B		
DSF	2	0000001A	FFFFFFFF	H	H		230	109M 110M 129 131M 156M		
DSTABLE	1	00000000	FFFFFFFF	J			219	53U 258		
DSTEST	4	000000BA	00000001	I			129	123B		
DS0	1	00000080		U			234	129		
DS2	1	00000020		U			236	109		
DS3	1	00000010		U			237	109 156		
DS6	1	00000002		U			240	131		
DS7	1	00000001		U			241	110		
DTSW	1	000000C2		U			325	326		
EV	1	00000008		U			59	102		
FCTVALST	1	00000090		U			293	296		
FPR0	1	00000000		U			51	116M 119M		
FSAERR	1	000001CC		U			386	210B 390 391 392 393 394 395 396		
FSAREA	1	00000000	FFFFFFFFE	U			283	288 293 295 296 297 300 307 309 313 315 319 321		
								323 325 328 335 337 339 341 347 349 351 354 356		
								358 360 362 364 366 368 370 374 376 378 381 383		
GETREC	4	000000F6	00000001	I			149	145B		
IHIOINAR	4	00000000	00000001	I			65	49 71U		
IHIOINTG	4	00000040	00000001	I			84	48 90U		
INT1	4	000000B6	00000001	I			125	112B		
IORLST	1	0000011C		U			383	101 120 132 149 202		
K	1	00000018	FFFFFFFF	X	X		228	180		
LEAD0	4	00000128	00000001	I			166	170B		
NOCL01	4	000000D0	00000001	I			139	130B		
NONR1	2	00000114	00000001	I			160	142B		
NX	1	0000000C		U			60	150 203		
OINERR	2	0000019E	00000001	I			209	155B		
OP	1	00000010		U			61	133		
OPTSW	1	000000C2		U			326	117		
OUTINT0	4	0000017E	00000001	I			197	161B		
POSITIVE	4	0000014A	00000001	I			177	173B		
PROLOGP	1	000000DC		U			351	352		
R	4	00000004	FFFFFFFF	F	F		222	139 152 188M		
RE	4	00000008	FFFFFFFF	F	F		223	141 143 154 181 186		
RECEND	4	00000190	00000001	I			202	182B 187B		
R0	1	00000000		U			402	125M 160M 162 172M		
R1	1	00000001		U			403	108		
R10	1	0000000A		U			412	72M 74 75 76M 78U 81D 95M 97U		
R12	1	0000000C		U			414	91M 93 94 101 117 120 132 149 202 209 210		
R13	1	0000000D		U			415	72 73M 74 75 91 92M 93 94 189M 209M		
R14	1	0000000E		U			416	103M 122M 134M 151M 204M		
R15	1	0000000F		U			417	71U 77D 90U 96D 101M 102M 103B 120M 121M 122B 132M 133M		
								134B 149M 150M 151B 202M 203M 204B		
R2	1	00000002		U			404	139M 140 144 146 147M 152M 153 163 164 166 168 169M		
								174 177 197 198 199		
R3	1	00000003		U			405	140M 141 153M 154 181 183 184M 186 188		
R4	1	00000004		U			406	179M 180M 185M		
R5	1	00000005		U			407	53U		
R7	1	00000007		U			409	108M 111M 116 119 125		
R9	1	00000009		U			411	143M 144M 148M		
SAVEAREA	4	000001B0	00000001	F	F		214	73 92 189		
SOUINTA	4	0000008A	00000001	I			109	79B		
TERMIN0	2	0000013C	00000001	I			172	167B		
TERMIN1	2	0000014E	00000001	I			179	175B 200B		
TERMIN1A	4	00000154	00000001	I			181	185B		
TERMIN1B	4	00000174	00000001	I			189	205B		

Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)																X390 3.1.04 2012/08/17 13.21															
0(0)	69	88	125M	160M	162	172M	192M																									
1(1)	69	88	108	192M																												
2(2)	69	88	139M	140	144	146	147M	152M	153	163	164	166	168	169M	174	177	192M	197	198	199												
3(3)	69	88	140M	141	153M	154	181	183	184M	186	188	192M																				
4(4)	69	88	179M	180M	185M	192M																										
5(5)	53U	69	88	192M																												
6(6)	69	88	192M																													
7(7)	69	88	108M	111M	116	119	125	192M																								
8(8)	69	88	192M																													
9(9)	69	88	143M	144M	148M	192M																										
10(A)	69	72M	74	75	76M	78U	81D	88	95M	97U	192M																					
11(B)	69	88	192M																													
12(C)	69	88	91M	93	94	101	117	120	132	149	192M	202	209	210N																		
13(D)	69	72	73M	74	75	88	91	92M	93	94	189M	192	209M																			
14(E)	69	88	103M	122M	134M	151M	192M	193B	204M																							
15(F)	65B	69	71U	77D	84B	88	90U	96D	101M	102M	103B	120M	121M	122B	132M	133M	134B	149M	150M	151B	192M	202M										
	203M	204B																														



NTE		Dsect Cross Reference					PAGE	9
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04 2012/08/17 13.21		
DSTABLE	00000024	FFFFFFFF	219	4	DSTABLE			
FSAAREA	00000120	FFFFFFFE	261		PRIMARY INPUT			

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		DSTABLE	FSAREA
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.21
53		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001A	188	DSTABLE,R5			
71		USING	Ordinary	00000001	00000000	00001000	15	001B0	76	IHI0INAR,R15			
77		DROP					15			R15			
78		USING	Ordinary	00000001	0000007C	00001000	10	0000E	79	COMMON,R10			
81		DROP					10			R10			
90		USING	Ordinary	00000001	00000040	00001000	15	00170	95	IHI0INTG,R15			
96		DROP					15			R15			
97		USING	Ordinary	00000001	0000007C	00001000	10	00138	205	COMMON,R10			

X390 3.1.04 2012/08/17 13.21

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHIOIN    PROCSTEP: X390

Primary input: lines    1 to    216 of SYSD.ALGOLFRT.ASM(IHIOIN)

SYSLIB library records read: 362

SYSUT1 work file size: 38386 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 17280 bytes

SYSLIN file records written: 11

TXA000I Return code 0, elapsed time 0.26 seconds.

No uninitialized areas found

**IHIOST**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHI0ST)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00202
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY		00003001
				4 *			00004001
				5 *	STATUS - LEVEL 2.1		00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	TRANSFER STRING DEFINED BY SECOND ACTUAL PARAMETER		00008001
				9 *	TO AN OUTPUT BUFFER		00009001
				10 *			00010001
				11 *	ENTRY POINT -		00011001
				12 *	IHIOSTRG - FROM GENERATED OBJECT MODULE		00012001
				13 *	LA R1,PARMLIST		00013001
				14 *	BALR R14,R15		00014001
				15 *	DATA PASSED BY NAME		00015001
				16 *			00016001
				17 *	INPUT - N/A		00017001
				18 *			00018001
				19 *	OUTPUT - N/A		00019001
				20 *			00020001
				21 *	EXTERNAL ROUTINES-		00021001
				22 *	IHIOR - EVALUATE DATASET NUMBER		00022001
				23 *	- OPEN DATASET		00023001
				24 *	- CHANGE TO NEXT OUTPUT RECORD		00024001
				25 *			00025001
				26 *	EXIT - NORMAL - RELOAD REGISTERS AND RETURN VIA R14		00026001
				27 *	- ERROR - N/A		00027001
				28 *			00028001
				29 *	TABLES/WORK AREAS - N/A		00029001
				30 *			00030001
000000		00000	00148	31	IHIOSTRG CSECT		00031001
				32 *			00032001
				33 *	DISPLACEMENTS IN ADRLST IN IHIFSA		00033001
				34 *			00034001
		00000		35	CI EQU 0 DISPLACEMENT FOR - IHIORCI		00035001
		00004		36	CL EQU 4 IHIORCL		00036001
		00008		37	EV EQU 8 IHIORREV		00037001
		0000C		38	NX EQU 12 IHIORNX		00038001
		00010		39	OP EQU 16 IHIOROP		00039001
		00014		40	OQ EQU 20 IHIOROQ		00040001
				41 *			00041001
				42	SAVE (14,12),,'IHIOSTRG LEVEL 2.1 &SYSDATE &SYSTIME'		00042001
000000	47F0 F026		00026	43+	B 38(0,15) BRANCH AROUND ID		01-SAVE
000004	21			44+	DC AL1(33) LENGTH OF IDENTIFIER		01-SAVE
000005	C9C8C9D6E2E3D9C7			45+	DC CL32'IHIOSTRG LEVEL 2.1 08/17/12 13.2' IDENTIFIER		01-SAVE
000025	F1			46+	DC CL1'1' IDENTIFIER		01-SAVE
000026	90EC D00C		0000C	47+	STM 14,12,12(13) SAVE REGISTERS		01-SAVE
00002A	188F			48	LR R8,R15		00043001
		R:8	00000	49	USING IHIOSTRG,R8		00044001
00002C	50D0 80F8		000F8	50	ST R13,SAVAR+4		00045001
000030	18CD			51	LR R12,R13		00046001
000032	41D0 80F4		000F4	52	LA R13,SAVAR		00047001
		R:5	00000	53	USING DSTABLE,R5		00048001
				54 *			00049001
				55 *	EVALUATE DATASET NUMBER		00050001
				56 *			00051001
000036	58FC 011C		0011C	57	L R15,IORLST(R12)		00052001
00003A	58F0 F008		00008	58	L R15,EV(,R15)		00053001
00003E	05EF			59	BALR R14,R15		00054001
				60 *			00055001
				61 *	STORE SOURCE ADDR		00056001
				62 *			00057001
000040	5810 1004		00004	63	L R1,4(,R1)		00058001
000044	5010 813C		0013C	64	ST R1,ASTRING	SAVE STRING ADDR	00059001
000048	9630 501A	0001A		65	OI DSF,DS2+DS3	DS2,DS3=1 OUTPUT	00060001
00004C	94FE 501A	0001A		66	NI DSF,255-DS7	DS7=0 NO END OF DATA	00061001
000050	9180 501A	0001A		67	TM DSF,DS0	DATASET OPEN ?	00062001
000054	4710 8066		00066	68	BO OUTSTR1	YES, BRANCH	00063001
000058	9602 501A	0001A		69	OI DSF,DS6	NO, DATASET IS NOT OPEN	00064001
00005C	58FC 011C		0011C	70	L R15,IORLST(R12)		00065001
000060	58F0 F010		00010	71	L R15,OP(,R15)		00066001
000064	05EF			72	BALR R14,R15	CALL FOR ROUTINE OPEN	00067001
000066	5820 813C		0013C	73	OUTSTR1 R2,ASTRING	R2 -> STRING	00068001
00006A	D201 8140	2000	00140	00000	74 MVC STRLTH,0(R2)	MOVE L'String	00069001
000070	4840 8140		00140	75	LH R4,STRLTH		00070001
000074	0640			76	BCTR R4,0		00071001
000076	0640			77	BCTR R4,0	REAL STRING LENGTH TO REGISTER	00072001
000078	1244			78	LTR R4,R4	ZERO LENGTH STRING ?	00073001
00007A	4780 80B8		000B8	79	BZ OUTSTR3	YES, BRANCH	00074001
00007E	4120 2002		00002	80	LA R2,2(,R2)	R2 -> STRING	00075001
000082	1834			81	OUTSTR4 R3,R4		00076001
000084	9610 501A	0001A		82	OI DSF,DS3		00077001
000088	5A40 5004	00004		83	A R4,R		00078001
00008C	5940 5008	00008		84	C R4,RE		00079001
000090	4720 80C2	000C2		85	BH OUTSTR2	OVERFLOW IN CURRENT RECORD	00080001
000094	0630			86	BCTR R3,0		00081001
000096	5890 5004	00004		87	L R9,R		00082001
00009A	4430 80EC	000EC		88	EX R3,OUTMOV	CONTENT OF STRING TO BUFFER	00083001
00009E	4130 3001	00001		89	LA R3,1(,R3)		00084001
0000A2	5040 5004	00004		90	ST R4,R		00085001
0000A6	5940 5008	00008		91	C R4,RE		00086001
0000AA	4770 80B8	000B8		92	BNE OUTSTR3		00087001
0000AE	58FC 011C	0011C		93	L R15,IORLST(R12)		00088001
0000B2	58F0 F00C	0000C		94	L R15,NX(,R15)		00089001
0000B6	05EF			95	BALR R14,R15	CURRENT RECORD FILLED	00090001
0000B8	58D0 80F8		000F8	96	OUTSTR3 L R13,SAVAR+4		00091001
				97 *			00092001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
0000BC	98EC D00C		0000C	98	RETURN	(14,12)	RETURN TO CALLER 00093001
0000C0	07FE			99+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
				100+	BR	14	RETURN 01-RETUR
				101 *			00094001
0000C2	5870 5008		00008	102	OUTSTR2	L R7, RE	RE-R AVAILIABLE, PLACE IN 00095001
0000C6	5870 5004		00004	103	S	R7, R	CURRENT RECORD 00096001
0000CA	5890 5004		00004	104	L	R9, R	00097001
0000CE	0670			105	BCTR	R7, 0	00098001
0000D0	4470 80EC		000EC	106	EX	R7, OUTMOV	00099001
0000D4	4170 7001		00001	107	LA	R7,1(,R7)	00100001
0000D8	1843			108	LR	R4, R3	00101001
0000DA	1B47			109	SR	R4, R7	00102001
0000DC	1A27			110	AR	R2, R7	00103001
0000DE	58FC 011C		0011C	111	L	R15, FORLST(R12)	00104001
0000E2	58F0 F00C		0000C	112	L	R15, NX(,R15)	00105001
0000E6	05EF			113	BALR	R14, R15	00106001
0000E8	47F0 8082		00082	114	B	OUTSTR4	00107001
				115 *			00108001
0000EC	D200 9000 2000 00000	00000	00000	116	OUTMOV	MVC 0(1,R9),0(R2)	MOVE STRING 00109001
				117 *			00110001
0000F2	0000						
0000F4	0000000000000000			118	SAVAR	DC 18F'0'	00111001
00013C	00000000			119	ASTRING	DC A(0)	00112001
000140	0000			120	STRLTH	DC H'0'	00113001
				121 *			00114001
000148				122	LTORG		00115001
				123 *			00116001
				124	DSTABLE	DSECT=YES	00117001
000000		00000	00024	125	DSTABLE	DSECT	01-DSTAB
				126+*			01-DSTAB
000000	00000000			127	ADCB	DC F'0'	01-DSTAB
000004	00000000			128	R	DC F'0'	01-DSTAB
000008	00000000			129	RE	DC F'0'	01-DSTAB
00000C	00000000			130	NBB	DC F'0'	01-DSTAB
000010	00000000			131	BB	DC F'0'	01-DSTAB
000014	0001			132	S	DC H'1'	01-DSTAB
000016	0050			133	P	DC H'80'	RECORD POINTER 01-DSTAB
000018	02			134	K	DC X'02'	RECORD LENGTH 01-DSTAB
000019	00			135	Q	DC X'00'	NUMBER OF BLANK DELIM CHARS 01-DSTAB
00001A	0000			136	DSF	DC H'00'	NO OF RECORDS PER SECTION 01-DSTAB
				137+*			DATASET FLAGS 01-DSTAB
				138+*			DATASET FLAGS - DSF 01-DSTAB
				139+*			01-DSTAB
		00080		140	DS0	EQU X'80'	DATASET OPEN 01-DSTAB
		00040		141	DS1	EQU X'40'	01-DSTAB
		00020		142	DS2	EQU X'20'	LAST I/O OUTPUT 01-DSTAB
		00010		143	DS3	EQU X'10'	01-DSTAB
		00008		144	DS4	EQU X'08'	01-DSTAB
		00004		145	DS5	EQU X'04'	01-DSTAB
		00002		146	DS6	EQU X'02'	OPEN FOR OUTPUT 01-DSTAB
		00001		147	DS7	EQU X'01'	END OF FILE 01-DSTAB
				148+*			01-DSTAB
				149+*			DATASET FLAGS - DSF+1 01-DSTAB
				150+*			01-DSTAB
		00080		151	DS8	EQU X'80'	END OF DATA 01-DSTAB
		00040		152	DS9	EQU X'40'	01-DSTAB
		00020		153	DS10	EQU X'20'	OPENED BY SYSACT 12 01-DSTAB
		00010		154	DS11	EQU X'10'	INDICATE IHIERR-ROUT 01-DSTAB
		00008		155	DSEOD	EQU X'08'	01-DSTAB
		00004		156	DSIOERR	EQU X'04'	I/O ERROR 01-DSTAB
		00002		157	DS14	EQU X'02'	DATASET OPENED 01-DSTAB
		00001		158	DS15	EQU X'01'	CLOSE FROM IHIERR 01-DSTAB
				159+*			01-DSTAB
00001C	00000000			160	NOTEADR	DC F'0'	01-DSTAB
000020	0000			161	BL	DC H'0'	LRECL+ TWO ARB 01-DSTAB
000022	0000			162+		DC H'0'	01-DSTAB
				163+*			01-DSTAB
		00024		164	DSTABLEL	EQU *-DSTABLE	L'DSTABLE ENTRY 01-DSTAB
				165+*			01-DSTAB
				166 *			00118001
000000		00000	00120	167	FAS	DSECT	00119001
				168 *			00120001
				169	COPY	FSAREA	00121001
				170=*			00001001
				171=*			00002001
				172=*			00003001
				173=*			00004001
				174=*			00005001
				175=*****			00006001
				176=*			00007001
				177=*			00008001
				178=*			00009001
				179=*			00010001
				180=*			00011001
				181=*****			00012001
				182=*			00013001
				183=*			00014001
				184=*			00015001
				185=*			00016001
				186=*			00017001
				187=*			00018001
				188=*			00019001
		00000		189	FSAREA	EQU *	00020001
				190=*			00021001
				191=*			00022001
				192=*			00023001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000000				193=	DS	18F	STANDARD SAVE AREA
		00048		194=ASAVE	EQU	*-FSAREA	ALTERNATE SAVE AREA USED BY
000048				195=	DS	18F	CERTAIN SUBROUTINES
				196=*			
				197=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	
				198=*			
		00090		199=FCTVALST	EQU	*-FSAREA	TEMPORARY STORAGE FOR
000090				200=	DS	D	FUNCTION VALUES
		00098		201=ASTLOC	EQU	*-FSAREA	DISPL FOR ADDR OF STAND LOCTN
000098	00000090			202=	DC	A(FSAREA+FCTVALST)	
		0009C		203=BRRST	EQU	*-FSAREA	TEMPORARY SAVE REG BRR
		0009C		204=HW	EQU	BRRST	TEMPORARY HALFWORD STORAGE
00009C				205=	DS	F	
		000A0		206=PROLREG	EQU	*-FSAREA	STORAGE FOR PBT AND LAT WHEN
0000A0				207=	DS	2A	A PROCEDURE IS FORMAL PARAM
				208=*			
				209=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	
				210=*			
0000A8				211=	DS	0H	
0000A8	00			212=	DC	X'00'	
		000A9		213=PROLPBN	EQU	*-FSAREA	STORAGE FOR CALLED PBN
0000A9	00			214=	DC	X'00'	
		000AA		215=EIGHT	EQU	*-FSAREA	CONST FOR REDUCING RAS
0000AA	0008			216=	DC	H'8'	
				217=*			
0000AC				218=	DS	0F	
		000AC		219=ADSTAB	EQU	*-FSAREA	ADDR OF DSTABLE
0000AC				220=	DS	A	IN THE OBJECT PROGRAM
		000B0		221=ANOTTAB	EQU	*-FSAREA	ADDR OF NOTE TABLE
0000B0				222=	DS	A	(INSERTED BY THE OPEN ROUTINE)
				223=*			
		000B4		224=IHIFSAST	EQU	*	
		000B4		225=PGOPSW	EQU	*-FSAREA	PROGRAM CHECK OLD PSW
0000B4				226=	DS	2F	
		000BC		227=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR
0000BC	00000000			228=	DC	F'0'	
		000C0		229=SCRCS	EQU	*-FSAREA	SEMICOLON NUMBER
0000C0				230=	DS	H	
		000C2		231=DTSW	EQU	*-FSAREA	OPTION SWITCHES
		000C2		232=OPTSW	EQU	DTSW	
0000C2	00			233=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20
		000C3		234=FSAERCOD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE
0000C3				235=	DS	C	
				236=*			
				237=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	
				238=*			
0000C4				239=	DS	0F	
		000C4		240=IHIFSARS	EQU	*	
		000C4		241=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8
0000C4				242=	DS	F	
		000C8		243=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP
0000C8				244=	DS	F	
		000CC		245=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8
0000CC				246=	DS	F	
		000D0		247=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM
0000D0				248=	DS	F	
				249=*			
				250=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	
				251=*			
0000D4				252=BRLIST	DS	0F	
		000D4		253=CAP1	EQU	*-FSAREA	FIRST PART CAPS
0000D4	4700 0000		00000	254=	NOP	0	
		000D8		255=CAP2	EQU	*-FSAREA	SECOND PART CAPS
0000D8	4700 0000		00000	256=	NOP	0	
		000DC		257=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY
		000DC		258=PROLOGFP	EQU	PROLOGP	
0000DC	4700 0000		00000	259=	NOP	0	
		000E0		260=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY
0000E0	4700 0000		00000	261=	NOP	0	
		000E4		262=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM
0000E4	4700 0000		00000	263=	NOP	0	
		000E8		264=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY
0000E8	4700 0000		00000	265=	NOP	0	
		000EC		266=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY
0000EC	4700 0000		00000	267=	NOP	0	
		000F0		268=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3
0000F0	4700 0000		00000	269=	NOP	0	
		000F4		270=CSWE1	EQU	*-FSAREA	FIRST PART CSWES
0000F4	4700 0000		00000	271=	NOP	0	
		000F8		272=CSWE2	EQU	*-FSAREA	SECOND PART CSWES
0000F8	4700 0000		00000	273=	NOP	0	
		000FC		274=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE
0000FC	4700 0000		00000	275=	NOP	0	
		00100		276=TRACE	EQU	*-FSAREA	
000100	D200 0000 0000	00000	00000	277=	MVC	0(0),0	
000106	4700 0000		00000	278=	NOP	0	
00010A	4700 0000		00000	279=	NOP	0	
		0010E		280=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT
00010E	4700 0000		00000	281=	NOP	0	
		00112		282=BCR	EQU	*-FSAREA	
000112	0700			283=	BCR	0,0	VARIABLE CONDITIONAL BRANCH
		00114		284=GETMSTO	EQU	*-FSAREA	
000114	4700 0000		00000	285=	NOP	0	
				286=*			
		00118		287=VALUCALL	EQU	*-FSAREA	
000118	4700 0000		00000	288=	NOP	0	

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
00011C 4700 0000		0011C	00000	289=IORLST	EQU	*-FSAREA	00120001
				290=	NOP	0	00121001
				291=*			00122001
				292=FSAERR	EQU	X'1CC'	00123001
		001CC		293=*		DISPL FOR ERROR LIST	00124001
				294=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				295=*			00126001
				296=OUTOFB	EQU	FSAERR+4*16	00127001
00218				297=NUMBIND	EQU	FSAERR+4*19	00128001
00208				298=ARRAYBD	EQU	FSAERR+4*15	00129001
0026C				299=ERROR40	EQU	FSAERR+4*40	00130001
00224				300=OERR22	EQU	FSAERR+4*22	00131001
00210				301=ENDLESL	EQU	FSAERR+4*17	00132001
00220				302=OERR21	EQU	FSAERR+4*21	00133001
				303=*			00134001
				304 *			00122001
				305 *		REGISTER EQUATES	00123001
				306 *			00124001
				307		IEZREGS	00125001
				308+R0	EQU	0	01-IEZRE
				309+R1	EQU	1	01-IEZRE
				310+R2	EQU	2	01-IEZRE
00003				311+R3	EQU	3	01-IEZRE
00004				312+R4	EQU	4	01-IEZRE
00005				313+R5	EQU	5	01-IEZRE
00006				314+R6	EQU	6	01-IEZRE
00007				315+R7	EQU	7	01-IEZRE
00008				316+R8	EQU	8	01-IEZRE
00009				317+R9	EQU	9	01-IEZRE
0000A				318+R10	EQU	10	01-IEZRE
0000B				319+R11	EQU	11	01-IEZRE
0000C				320+R12	EQU	12	01-IEZRE
0000D				321+R13	EQU	13	01-IEZRE
0000E				322+R14	EQU	14	01-IEZRE
0000F				323+R15	EQU	15	01-IEZRE
				324 *			00126001
				325		END	00127001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.21
ASTRING	4	0000013C	00000001	A	A		119	64M 73				
BRRST	1	0000009C		U			203	204				
DSF	2	0000001A	FFFFFFF	H	H		136	65M 66M 67 69M 82M				
DSTABLE	1	00000000	FFFFFFF	J			125	53U 164				
DS0	1	00000080		U			140	67				
DS2	1	00000020		U			142	65				
DS3	1	00000010		U			143	65 82				
DS6	1	00000002		U			146	69				
DS7	1	00000001		U			147	66				
DTSW	1	000000C2		U			231	232				
EV	1	00000008		U			37	58				
FCTVALST	1	00000090		U			199	202				
FSAERR	1	000001CC		U			292	296 297 298 299 300 301 302				
FSAREA	1	00000000	FFFFFFFE	U			189	194 199 201 202 203 206 213 215 219 221 225 227				
								229 231 234 241 243 245 247 253 255 257 260 262				
								264 266 268 270 272 274 276 280 282 284 287 289				
IHIOSTRG	1	00000000	00000001	J			31	49U				
IORLST	1	0000011C		U			289	57 70 93 111				
NX	1	0000000C		U			38	94 112				
OP	1	00000010		U			39	71				
OUTMOV	6	000000EC	00000001	I			116	88X 106X				
OUTSTR1	4	00000066	00000001	I			73	68B				
OUTSTR2	4	000000C2	00000001	I			102	85B				
OUTSTR3	4	000000B8	00000001	I			96	79B 92B				
OUTSTR4	2	00000082	00000001	I			81	114B				
PROLOGP	1	000000DC		U			257	258				
R	4	00000004	FFFFFFF	F	F		128	83 87 90M 103 104				
RE	4	00000008	FFFFFFF	F	F		129	84 91 102				
R1	1	00000001		U			309	63M 64				
R12	1	0000000C		U			320	51M 57 70 93 111				
R13	1	0000000D		U			321	50 51 52M 96M				
R14	1	0000000E		U			322	59M 72M 95M 113M				
R15	1	0000000F		U			323	48 57M 58M 59B 70M 71M 72B 93M 94M 95B 111M 112M				
								113B				
R2	1	00000002		U			310	73M 74 80M 110M 116				
R3	1	00000003		U			311	81M 86M 88 89M 108				
R4	1	00000004		U			312	75M 76M 77M 78M 81 83M 84 90 91 108M 109M				
R5	1	00000005		U			313	53U				
R7	1	00000007		U			315	102M 103M 105M 106 107M 109 110				
R8	1	00000008		U			316	48M 49U				
R9	1	00000009		U			317	87M 104M 116				
SAVAR	4	000000F4	00000001	F	F		118	50M 52 96				
STRLTH	2	00000140	00000001	H	H		120	74M 75				

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OST		Dsect Cross Reference					PAGE		8
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04 2012/08/17 13.21			
DSTABLE	00000024	FFFFFFFF	125	4	DSTABLE				
FAS	00000120	FFFFFFFE	167		PRIMARY INPUT				

Con	Source	Members
-----	--------	---------

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1	SYS1.MACLIB	
	IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB	
3	SYSD.ALGOLFRT.ASM	
4	SYSD.ALGOLFRT.MACLIB	
	DSTABLE	FSAREA
5	SYS1.AMODGEN	

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.21
49		USING	Ordinary	00000001	00000000	00001000	8	00140	114	IHIOSTRG,R8		
53		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001A	104	DSTABLE,R5		



X390 3.1.04 2012/08/17 13.21

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHIOST      PROCSTEP: X390

Primary input: lines      1 to      127 of SYSD.ALGOLFRT.ASM(IHIOST)

SYSLIB library records read: 362

SYSUT1 work file size: 29420 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 10160 bytes

SYSLIN file records written: 8

TXA000I Return code 0, elapsed time 0.23 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIOSTRG 000142 6

**IHIOSY**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHI0SY)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00206
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *		STATUS - LEVEL 2.1	00005001
				6 *			00006001
				7 *		FUNCTION/OPERATION -	00007001
				8 *		COMPARE NUMBER ASSIGNED TO THIRD ACTUAL PARAMETER WITH	00008001
				9 *		AN INTERNAL STRING AND TRANSFER CHARACTER IN	00009001
				10 *		CORRESPONDING POSITION TO AN OUTPUT BUFFER	00010001
				11 *			00011001
				12 *		ENTRY POINT -	00012001
				13 *		IHIOSYMB - FROM GENERATED OBJECT MODULE	00013001
				14 *		LA R1,PARMLIST	00014001
				15 *		DATA PASSED BY NAME	00015001
				16 *			00016001
				17 *		INPUT - N/A	00017001
				18 *			00018001
				19 *		OUTPUT - N/A	00019001
				20 *			00020001
				21 *		EXTERNAL ROUTINES -	00021001
				22 *		IHIOR - EVALUATE DATASET NUMBER	00022001
				23 *		- OPEN DATASET	00023001
				24 *		- CHANGE TO NEXT OUTPUT RECORD	00024001
				25 *			00025001
				26 *		EXITS - NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00026001
				27 *			00027001
				28 *		EXITS - ERROR - SOURCE DOES NOT MATCH STRING NO 8	00028001
				29 *		BRANCH TO FSA LA R13,IHIFSA	00029001
				30 *		B FSAERR+XX*4(13) XX ERROR NO	00030001
				31 *			00031001
				32 *		TABLES/WORK AREAS - N/A	00032001
				33 *			00033001
000000		00000	00138	34	IHIOSYMB	CSECT	00034001
				35 *			00035001
				36 *	R3	-> SOURCE	00036001
				37 *	R4	-> START OF STRING	00037001
				38 *	R8	= INTEGER NUMBER FROM SOURCE	00038001
				39 *	R9	= L'SOURCE STRING	00039001
				40 *	R10	-> CHARACTER POINTER	00040001
				41 *			00041001
	R:5	00000		42	USING	DSTABLE,R5	00042001
				43 *			00043001
				44 *		DISPLACEMENTS IN ADRLST IN IHIFSA	00044001
				45 *			00045001
		00000		46	EQU	0 DISPLACEMENT FOR - IHIORCI	00046001
		00004		47	EQU	4 IHIORCL	00047001
		00008		48	EQU	8 IHIIOREV	00048001
		0000C		49	EQU	12 IHIIORNX	00049001
		00010		50	EQU	16 IHIOROP	00050001
		00014		51	EQU	20 IHIOROQ	00051001
				52 *			00052001
				53	SAVE	(14,12),,'IHIOSYMB LEVEL 2.1 &SYSDATE &SYSTIME'	00053001
000000	47F0	F026	00026	54+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			55+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D6E2E8D4C2			56+	DC	CL32'IHIOSYMB LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			57+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC	D00C	0000C	58+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				59 *			00054001
00002A	187F			60	LR	R7,R15	00055001
				61	USING	IHIOSYMB,R7	00056001
00002C	50D0	70F4	000F4	62	ST	R13,SAVEAREA+4 SAVE HIGH SAVEAREA ADDR	00057001
000030	18CD			63	LR	R12,R13 R12 -> FSA	00058001
000032	41D0	70F0	000F0	64	LA	R13,SAVEAREA	00059001
				65 *			00060001
				66 *		EVALUATE DATASET NUMBER (EVDSN)	00061001
				67 *			00062001
000036	58F0	C11C	0011C	68	L	R15,IORLST(,R12)	00063001
00003A	58F0	F008	00008	69	L	R15,EV(,R15)	00064001
00003E	05EF			70	BALR	R14,R15	00065001
000040	5840	1004	00004	71	L	R4,4(,R1) R4 -> STRING	00066001
				72 *			00067001
				73 *		TEST IF DATASET IS OPEN	00068001
				74 *			00069001
000044	94FE	501A	0001A	75	NI	DSF,255-DS7 DS7 = 0	00070001
000048	9630	501A	0001A	76	OI	DSF,DS2+DS3 DS2, DS3 = 1	00071001
00004C	9180	501A	0001A	77	TM	DSF,DS0 DATASET OPEN ?	00072001
000050	4710	7062	00062	78	BO	SOURCE0 YES, BRANCH	00073001
000054	9602	501A	0001A	79	OI	DSF,DS6 DS6 = 1	00074001
000058	58F0	C11C	0011C	80	L	R15,IORLST(,R12)	00075001
00005C	58F0	F010	00010	81	L	R15,OP(,R15)	00076001
000060	05EF			82	BALR	R14,R15	00077001
000062	5830	1008	00008	83	SOURCE0	L R3,8(,R1) OPEN DATASET	00078001
000066	1233			84	LTR	R3,R3 R3 -> SOURCE	00079001
000068	4720	7090	00090	85	BP	EVSOURCE NO CONVERSION NEEDED	00080001
00006C	9120	C0C2	000C2	86	TM	OPTSM(R12),X'20' YES, LONG OR SHORT PREC ?	00081001
000070	4710	707C	0007C	87	BO	SOURCE1 SHORT	00082001
000074	6800	3000	00000	88	LD	0,0(,R3)	00083001
000078	47F0	7080	00080	89	B	SOURCE1A	00084001
				90 *			00085001
00007C	7800	3000	00000	91	SOURCE1	LE 0,0(,R3)	00086001
000080	58F0	C11C	0011C	92	SOURCE1A	L R15,IORLST(,R12)	00087001
000084	58F0	F000	00000	93	L	R15,CI(,R15)	00088001
000088	05EF			94	BALR	R14,R15 REQUEST CONVERSION	00089001
00008A	1880			95	LR	R8,R0	00090001
00008C	47F0	7094	00094	96	B	EVSOURAA	00091001
				97 *			00092001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000090	5880 3000		00000	98	EVSOURCE	L R8,0(,R3)	SOURCE INTEGER LOADED 00093001
000094	1288			99	EVSOURAA	LTR R8,R8	00094001
000096	4740 70E8		000E8	100	BM	ERR8	INTEGER -VE 00095001
00009A	58A0 5004		00004	101	L	R10,R	CHARACTER POINTER 00096001
00009E	4720 70AA		000AA	102	BP	EVSOURBB	INTEGER +VE 00097001
0000A2	9240 A000	00000		103	MVI	0(R10),C' '	INTEGER = ZERO 00098001
0000A6	47F0 70C2		000C2	104	B	TERMIN	00099001
				105	*		00100001
0000AA	4890 4000		00000	106	EVSOURBB	LH R9,0(,R4)	LENGTH OF STRING 00101001
0000AE	4180 8001		00001	107	LA	R8,1(,R8)	INTEGER INCR BY ONE 00102001
0000B2	0690			108	BCTR	R9,0	LENGTH DECR BY ONE 00103001
0000B4	1989			109	CR	R8,R9	00104001
0000B6	4720 70E8		000E8	110	BH	ERR8	00105001
0000BA	1A84			111	AR	R8,R4	00106001
0000BC	D200 A000 8000 00000	00000		112	MVC	0(1,R10),0(R8)	00107001
0000C2	41A0 A001		00001	113	TERMIN	LA R10,1(,R10)	00108001
0000C6	59A0 5008		00008	114	C	R10,RE	00109001
0000CA	47B0 70DA		000DA	115	BNL	NEXTREC	00110001
0000CE	50A0 5004		00004	116	ST	R10,R	00111001
0000D2	18DC			117	TERMINA	LR R13,R12	00112001
				118	*		00113001
				119		RETURN (14,12)	00114001
0000D4	98EC D00C		0000C	120+	LM	14,12,12(13)	RESTORE THE REGISTERS 01-RETUR
0000D8	07FE			121+	BR	14	RETURN 01-RETUR
				122	*		00115001
0000DA	58F0 C11C		0011C	123	NEXTREC	L R15,IORLST(,R12)	00116001
0000DE	58F0 F00C		0000C	124	L	R15,NX(,R15)	00117001
0000E2	05EF			125	BALR	R14,R15	00118001
0000E4	47F0 70D2		000D2	126	B	TERMINA	00119001
				127	*		00120001
0000E8	18DC			128	ERR8	LR R13,R12	00121001
0000EA	47FC 01EC		001EC	129	B	FSAERR+8*(R12)	SOURCE DOES NOT MATCH STRING 00122001
				130	*		00123001
0000EE	0000						
0000F0	0000000000000000			131	SAVEAREA	DC 18F'0'	MODULE SAVE AREA 00124001
				132	*		00125001
000138				133		LTORG	00126001
				134	*		00127001
				135		DSTABLE DSECT=YES	00128001
000000		00000 00024		136+	DSTABLE	DSECT	01-DSTAB
				137+	*		01-DSTAB
000000	00000000			138+	ADCB	DC F'0'	-> DCB 01-DSTAB
000004	00000000			139+	R	DC F'0'	CHARACTER POINTER 01-DSTAB
000008	00000000			140+	RE	DC F'0'	01-DSTAB
00000C	00000000			141+	NBB	DC F'0'	01-DSTAB
000010	00000000			142+	BB	DC F'0'	01-DSTAB
000014	0001			143+	S	DC H'1'	RECORD POINTER 01-DSTAB
000016	0050			144+	P	DC H'80'	RECORD LENGTH 01-DSTAB
000018	02			145+	K	DC X'02'	NUMBER OF BLANK DELIM CHARS 01-DSTAB
000019	00			146+	Q	DC X'00'	NO OF RECORDS PER SECTION 01-DSTAB
00001A	0000			147+	DSF	DC H'00'	DATASET FLAGS 01-DSTAB
				148+	*		01-DSTAB
				149+	*	DATASET FLAGS - DSF	01-DSTAB
				150+	*		01-DSTAB
	00080			151+	DS0	EQU X'80'	DATASET OPEN 01-DSTAB
	00040			152+	DS1	EQU X'40'	01-DSTAB
	00020			153+	DS2	EQU X'20'	LAST I/O OUTPUT 01-DSTAB
	00010			154+	DS3	EQU X'10'	01-DSTAB
	00008			155+	DS4	EQU X'08'	01-DSTAB
	00004			156+	DS5	EQU X'04'	01-DSTAB
	00002			157+	DS6	EQU X'02'	OPEN FOR OUTPUT 01-DSTAB
	00001			158+	DS7	EQU X'01'	END OF FILE 01-DSTAB
				159+	*		01-DSTAB
				160+	*	DATASET FLAGS - DSF+1	01-DSTAB
				161+	*		01-DSTAB
	00080			162+	DS8	EQU X'80'	END OF DATA 01-DSTAB
	00040			163+	DS9	EQU X'40'	01-DSTAB
	00020			164+	DS10	EQU X'20'	OPENED BY SYSACT 12 01-DSTAB
	00010			165+	DS11	EQU X'10'	INDICATE IHIERR-ROUT 01-DSTAB
	00008			166+	DSEOD	EQU X'08'	01-DSTAB
	00004			167+	DSIOERR	EQU X'04'	I/O ERROR 01-DSTAB
	00002			168+	DS14	EQU X'02'	DATASET OPENED 01-DSTAB
	00001			169+	DS15	EQU X'01'	CLOSE FROM IHIERR 01-DSTAB
				170+	*		01-DSTAB
00001C	00000000			171+	NOTEADR	DC F'0'	01-DSTAB
000020	0000			172+	BL	DC H'0'	LRECL+ TWO ARB 01-DSTAB
000022	0000			173+		DC H'0'	01-DSTAB
				174+	*		01-DSTAB
	00024			175+	DSTABLE	EQU *-DSTABLE	L'DSTABLE ENTRY 01-DSTAB
				176+	*		01-DSTAB
				177	*		00129001
000000		00000 00120		178	FAS	DSECT	00130001
				179	*		00131001
				180		COPY FSAREA	00132001
				181+	*		00001001
				182+	*	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				183+	*		00003001
				184+	*	STATUS - LEVEL 2.1	00004001
				185+	*		00005001
				186+	*	*****	00006001
				187+	*		00007001
				188+	*	COMMON DATA AREA	00008001
				189+	*		00009001
				190+	*	FSAREA	00010001
				191+	*		00011001
				192+	*	*****	00012001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				193=*			00013001
				194=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				195=*		MODULES DURING THE EXECUTION	00015001
				196=*			00016001
				197=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				198=*		SUBROUTINES) BY R12	00018001
				199=*			00019001
		00000		200=FSAREA	EQU *		00020001
				201=*			00021001
				202=*		SAVE AREAS	00022001
				203=*			00023001
000000				204=	DS	18F STANDARD SAVE AREA	00024001
		00048		205=ASAVE	EQU *-FSAREA	ALTERNATE SAVE AREA USED BY	00025001
000048				206=	DS	18F CERTAIN SUBROUTINES	00026001
				207=*			00027001
				208=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				209=*			00029001
		00090		210=FACTVALST	EQU *-FSAREA	TEMPORARY STORAGE FOR	00030001
000090				211=	DS	D FUNCTION VALUES	00031001
		00098		212=ASTLOC	EQU *-FSAREA	DISPL FOR ADDR OF STAND LOCTN	00032001
000098	00000090			213=	DC	A(FSAREA+FACTVALST)	00033001
		0009C		214=BRRST	EQU *-FSAREA	TEMPORARY SAVE REG BRR	00034001
		0009C		215=HW	EQU	BRRST TEMPORARY HALFWORD STORAGE	00035001
00009C				216=	DS	F	00036001
		000A0		217=PROLREG	EQU *-FSAREA	STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				218=	DS	2A A PROCEDURE IS FORMAL PARAM	00038001
				219=*			00039001
				220=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				221=*			00041001
0000A8				222=	DS	0H	00042001
0000A8	00			223=	DC	X'00'	00043001
		000A9		224=PROLPBN	EQU *-FSAREA	STORAGE FOR CALLED PBN	00044001
0000A9	00			225=	DC	X'00'	00045001
		000AA		226=EIGHT	EQU *-FSAREA	CONST FOR REDUCING RAS	00046001
0000AA	0008			227=	DC	H'8'	00047001
				228=*			00048001
0000AC				229=	DS	0F	00049001
		000AC		230=ADSTAB	EQU *-FSAREA	ADDR OF DSTABLE	00050001
0000AC				231=	DS	A IN THE OBJECT PROGRAM	00051001
		000B0		232=ANOTTAB	EQU *-FSAREA	ADDR OF NOTE TABLE	00052001
0000B0				233=	DS	A (INSERTED BY THE OPEN ROUTINE)	00053001
				234=*			00054001
		000B4		235=IHIFSAST	EQU *		00055001
0000B4				236=PGOPSW	EQU *-FSAREA	PROGRAM CHECK OLD PSW	00056001
				237=	DS	2F	00057001
		000BC		238=FSAPICA	EQU *-FSAREA	OLD PICA ADDR	00058001
0000BC	00000000			239=	DC	F'0'	00059001
		000C0		240=SCRC5	EQU *-FSAREA	SEMICOLON NUMBER	00060001
0000C0				241=	DS	H	00061001
		000C2		242=DTSW	EQU *-FSAREA	OPTION SWITCHES	00062001
0000C2	00			243=OPTSW	EQU	DTSW	00063001
		000C3		244=	DC	X'00'	00064001
0000C3				245=FSAERCD	EQU *-FSAREA	ERROR CODE FOR ERROR ROUTINE	00065001
				246=	DS	C	00066001
				247=*			00067001
				248=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				249=*			00069001
0000C4				250=	DS	0F	00070001
		000C4		251=IHIFSARS	EQU *		00071001
		000C4		252=RASSTART	EQU *-FSAREA	ADDR OF FIRST ENTRY IN RAS-8	00072001
0000C4				253=	DS	F	00073001
		000C8		254=RASPT	EQU *-FSAREA	RAS POINTER FROM TOP	00074001
0000C8				255=	DS	F	00075001
		000CC		256=RASEND	EQU *-FSAREA	ADDR OF LAST ENTRY IN RAS+8	00076001
0000CC				257=	DS	F	00077001
		000D0		258=RASPB	EQU *-FSAREA	RAS POINTER FROM BOTTOM	00078001
0000D0				259=	DS	F	00079001
				260=*			00080001
				261=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				262=*			00082001
0000D4				263=BRLIST	DS	0F	00083001
		000D4		264=CAP1	EQU *-FSAREA	FIRST PART CAPS	00084001
0000D4	4700 0000		00000	265=	NOP	0	00085001
		000D8		266=CAP2	EQU *-FSAREA	SECOND PART CAPS	00086001
0000D8	4700 0000		00000	267=	NOP	0	00087001
		000DC		268=PROLOGP	EQU *-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY	00088001
0000DC	4700 0000		00000	269=PROLOGFP	EQU	PROLOGP	00089001
				270=	NOP	0	00090001
		000E0		271=PROLOG	EQU *-FSAREA	PROLOGUE PROGRAM USUAL ENTRY	00091001
0000E0	4700 0000		00000	272=	NOP	0	00092001
		000E4		273=RETPROG	EQU *-FSAREA	DISPLACEMENT RETURN PROGRAM	00093001
0000E4	4700 0000		00000	274=	NOP	0	00094001
		000E8		275=EPILOGP	EQU *-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY	00095001
0000E8	4700 0000		00000	276=	NOP	0	00096001
		000EC		277=EPILOGB	EQU *-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY	00097001
0000EC	4700 0000		00000	278=	NOP	0	00098001
		000F0		279=EPIPLR3	EQU *-FSAREA	EPILOGUE PROGRAM ENTRY 3	00099001
0000F0	4700 0000		00000	280=	NOP	0	00100001
		000F4		281=CSWE1	EQU *-FSAREA	FIRST PART CSWES	00101001
0000F4	4700 0000		00000	282=	NOP	0	00102001
		000F8		283=CSWE2	EQU *-FSAREA	SECOND PART CSWES	00103001
0000F8	4700 0000		00000	284=	NOP	0	00104001
		000FC		285=LOADPP	EQU *-FSAREA	LOAD PRECOMPILED PROC ROUTINE	00105001
0000FC	4700 0000		00000	286=	NOP	0	00106001
		00100		287=TRACE	EQU *-FSAREA		00107001
000100	D200 0000 0000 00000		00000	288=	MVC	0(0),0	00108001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
000106	4700 0000		00000	289=	NOP	0	00109001
00010A	4700 0000		00000	290=	NOP	0	00110001
		0010E		291=	TERMNTE EQU	*-FSAREA	NORMAL TERMINATION EXIT 00111001
00010E	4700 0000		00000	292=	NOP	0	00112001
		00112		293=	BCR EQU	*-FSAREA	00113001
000112	0700			294=	BCR	0,0	VARIABLE CONDITIONAL BRANCH 00114001
		00114		295=	GETMSTO EQU	*-FSAREA	00115001
000114	4700 0000		00000	296=	NOP	0	00116001
				297=	*		00117001
		00118		298=	VALUCALL EQU	*-FSAREA	00118001
000118	4700 0000		00000	299=	NOP	0	00119001
		0011C		300=	IORLST EQU	*-FSAREA	00120001
00011C	4700 0000		00000	301=	NOP	0	00121001
				302=	*		00122001
		001CC		303=	FSAERR EQU	X'1CC'	DISPL FOR ERROR LIST 00123001
				304=	*		00124001
				305=	*	DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				306=	*		00126001
		0020C		307=	OUTOFB EQU	FSAERR+4*16	00127001
		00218		308=	NUMBIND EQU	FSAERR+4*19	00128001
		00208		309=	ARRAYBD EQU	FSAERR+4*15	00129001
		0026C		310=	ERROR40 EQU	FSAERR+4*40	00130001
		00224		311=	OERR22 EQU	FSAERR+4*22	00131001
		00210		312=	ENDLESL EQU	FSAERR+4*17	00132001
		00220		313=	OERR21 EQU	FSAERR+4*21	00133001
				314=	*		00134001
				315	*		00135001
				316	*	REGISTER EQUATES	00136001
				317	*		00137001
				318		IEZREGS	00138001
		00000		319+R0	EQU	0	01-IEZRE
		00001		320+R1	EQU	1	01-IEZRE
		00002		321+R2	EQU	2	01-IEZRE
		00003		322+R3	EQU	3	01-IEZRE
		00004		323+R4	EQU	4	01-IEZRE
		00005		324+R5	EQU	5	01-IEZRE
		00006		325+R6	EQU	6	01-IEZRE
		00007		326+R7	EQU	7	01-IEZRE
		00008		327+R8	EQU	8	01-IEZRE
		00009		328+R9	EQU	9	01-IEZRE
		0000A		329+R10	EQU	10	01-IEZRE
		0000B		330+R11	EQU	11	01-IEZRE
		0000C		331+R12	EQU	12	01-IEZRE
		0000D		332+R13	EQU	13	01-IEZRE
		0000E		333+R14	EQU	14	01-IEZRE
		0000F		334+R15	EQU	15	01-IEZRE
				335	*		00137001
				336		END	00138001



OSY		Symbol Cross Reference							PAGE	
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04 2012/08/17 13.21	
BRRST	1	0000009C		U			214	215		
CI	1	00000000		U			46	93		
DSF	2	0000001A	FFFFFFFF	H	H		147	75M 76M 77 79M		
DSTABLE	1	00000000	FFFFFFFF	J			136	42U 175		
DS0	1	00000080		U			151	77		
DS2	1	00000020		U			153	76		
DS3	1	00000010		U			154	76		
DS6	1	00000002		U			157	79		
DS7	1	00000001		U			158	75		
DTSW	1	000000C2		U			242	243		
ERR8	2	000000E8	00000001	I			128	100B 110B		
EV	1	00000008		U			48	69		
EVSOURAA	2	00000094	00000001	I			99	96B		
EVSOURBB	4	000000AA	00000001	I			106	102B		
EVSOURCE	4	00000090	00000001	I			98	85B		
FCTVALST	1	00000090		U			210	213		
FSAERR	1	000001CC		U			303	129B 307 308 309 310 311 312 313		
FSAREA	1	00000000	FFFFFFFFE	U			200	205 210 212 213 214 217 224 226 230 232 236 238		
								240 242 245 252 254 256 258 264 266 268 271 273		
								275 277 279 281 283 285 287 291 293 295 298 300		
IHIOSYMB	1	00000000	00000001	J			34	61U		
IORLST	1	0000011C		U			300	68 80 92 123		
NEXTREC	4	000000DA	00000001	I			123	115B		
NX	1	0000000C		U			49	124		
OP	1	00000010		U			50	81		
OPTSW	1	000000C2		U			243	86		
PROLOGP	1	000000DC		U			268	269		
R	4	00000004	FFFFFFFF	F	F		139	101 116M		
RE	4	00000008	FFFFFFFF	F	F		140	114		
R0	1	00000000		U			319	95		
R1	1	00000001		U			320	71 83		
R10	1	0000000A		U			329	101M 103 112 113M 114 116		
R12	1	0000000C		U			331	63M 68 80 86 92 117 123 128 129		
R13	1	0000000D		U			332	62 63 64M 117M 128M		
R14	1	0000000E		U			333	70M 82M 94M 125M		
R15	1	0000000F		U			334	60 68M 69M 70B 80M 81M 82B 92M 93M 94B 123M 124M		
								125B		
R3	1	00000003		U			322	83M 84M 88 91 98		
R4	1	00000004		U			323	71M 106 111		
R5	1	00000005		U			324	42U		
R7	1	00000007		U			326	60M 61U		
R8	1	00000008		U			327	95M 98M 99M 107M 109 111M 112		
R9	1	00000009		U			328	106M 108M 109		
SAVEAREA	4	000000F0	00000001	F	F		131	62M 64		
SOURCE0	4	00000062	00000001	I			83	78B		
SOURCE1	4	0000007C	00000001	I			91	87B		
SOURCE1A	4	00000080	00000001	I			92	89B		
TERMIN	4	000000C2	00000001	I			113	104B		
TERMINA	2	000000D2	00000001	I			117	126B		

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

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0(0)	58	95	120M																	
1(1)	58	71	83	120M																
2(2)	58	120M																		
3(3)	58	83M	84M	88	91	98	120M													
4(4)	58	71M	106	111	120M															
5(5)	42U	58	120M																	
6(6)	58	120M																		
7(7)	58	60M	61U	120M																
8(8)	58	95M	98M	99M	107M	109	111M	112	120M											
9(9)	58	106M	108M	109	120M															
10(A)	58	101M	103	112	113M	114	116	120M												
11(B)	58	120M																		
12(C)	58	63M	68	80	86	92	117	120M	123	128	129N									
13(D)	58	62	63	64M	117M	120	128M													
14(E)	58	70M	82M	94M	120M	121B	125M													
15(F)	54B	58	60	68M	69M	70B	80M	81M	82B	92M	93M	94B	120M	123M	124M	125B				

OSY		Dsect Cross Reference					PAGE		8
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04 2012/08/17 13.21			
DSTABLE	00000024	FFFFFFFF	136	4	DSTABLE				
FAS	00000120	FFFFFFFE	178		PRIMARY INPUT				

Con	Source	Members
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X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		DSTABLE	FSAREA
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.21
42		USING	Ordinary	FFFFFFF	00000000	00001000	5	0001A	116	DSTABLE,R5		
61		USING	Ordinary	00000001	00000000	00001000	7	000F4	126	IHIOSYMB,R7		

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHIOSY    PROCSTEP: X390

Primary input: lines    1 to    138 of SYSD.ALGOLFRT.ASM(IHIOSY)

SYSLIB library records read: 362

SYSUT1 work file size: 30556 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 11040 bytes

SYSLIN file records written: 8

TXA000I Return code 0, elapsed time 0.23 seconds.

No uninitialized areas found

**IHIOTA**

**LEVEL**

**V2.M01**



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Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIOTA)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00210
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
				2 *			00002001
				3 *		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *		STATUS - LEVEL 2.1	00005001
				6 *			00006001
				7 *		FUNCTION/OPERATION -	00007001
				8 *		TRANSFER NUMBERS FROM ARRAY INDICATED BY SECOND	00008001
				9 *		PARAMETER TO OUTPUT BUFFER BY CALLING OUTINTEGER	00009001
				10 *		REPEATEDLY	00010001
				11 *			00011001
				12 *		ENTRY POINT -	00012001
				13 *		IHIOTARR - FROM GENERATED OBJECT MODULE	00013001
				14 *		LA R1,PARMLIST	00014001
				15 *		BALR R14,R15	00015001
				16 *		DATA PASSED BY NAME	00016001
				17 *			00017001
				18 *		INPUT - N/A	00018001
				19 *			00019001
				20 *		OUTPUT - N/A	00020001
				21 *			00021001
				22 *		EXTERNAL ROUTINES -	00022001
				23 *		IHIOR - EVALUATE DATASET NUMBER	00023001
				24 *		IHIORIN - OUTINTEGER	00024001
				25 *			00025001
				26 *		EXIT - NORMAL - RELOAD REGISTERS RETURN VIA R14	00026001
				27 *			00027001
				28 *		EXIT - ERROR - N/A	00028001
				29 *			00029001
				30 *		TABLES/WORK AREAS - N/A	00030001
				31 *			00031001
000000		00000	00092	32	IHIOTARR	CSECT	00032001
				33 *			00033001
				34		SAVE (14,12),, 'IHIOTARR LEVEL 2.1 &SYSDATE &SYSTIME'	00034001
000000	47F0 F026		00026	35+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			36+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9D6E3C1D9D9			37+	DC	CL32'IHIOTARR LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F1			38+	DC	CL1'1' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	39+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				40 *			00035001
00002A	188F			41	LR	R8,R15	00036001
		R:8	00000	42	USING	IHIOTARR,R8	00037001
00002C	18CD			43	LR	R12,R13	00038001
00002E	41D0 D048		00048	44	LA	R13,ASAVE(,R13) R12 -> FSA	00039001
000032	1B33			45	SR	R3,R3 R13 -> SECOND FSA SAVEAREA	00040001
				46 *			00041001
				47 *		EVALUATE DATASET NUMBER	00042001
				48 *			00043001
000034	58F0 8080		00080	49	L	R15,VIOREV	00044001
000038	05EF			50	BALR	R14,R15	00045001
				51 *			00046001
				52 *		EVALUATE SOURCE ADDR	00047001
				53 *			00048001
00003A	BF1F 1004		00004	54	ICM	R1,B'1111',4(R1) GET SECOND PARAMETER	00049001
00003E	47B0 804A		0004A	55	BNM	OUTT1 >= 0, BRANCH	00050001
000042	5630 8088		00088	56	O	R3,=X'80000000' MINUS, INSERT FLAG BYTE	00051001
000046	5410 808C		0008C	57	N	R1,=X'00FFFFFF'	00052001
00004A	5820 100C		0000C	58	L	R2,12(,R1) R2 -> DESTEND+1	00053001
00004E	5870 1008		00008	59	L	R7,8(,R1) R7 -> STARTDEST	00054001
000052	1A73			60	AR	R7,R3	00055001
000054	1A23			61	AR	R2,R3	00056001
				62 *			00057001
				63 *		CALL ROUTINE OUTINTEGER	00058001
				64 *			00059001
000056	58F0 8084		00084	65	OUTT2	L R15,VOINAR	00060001
00005A	05EF			66	BALR	R14,R15	00061001
00005C	4A70 8090		00090	67	AH	R7,=H'4'	00062001
000060	4720 8070		00070	68	BP	OUTT2A	00063001
000064	9120 C0C2		000C2	69	TM	OPTSW(R12),X'20'	00064001
000068	4710 8070		00070	70	BO	OUTT2A	00065001
00006C	4170 7004		00004	71	LA	R7,4(,R7) INCR DEST ADDR	00066001
000070	1972			72	OUTT2A	CR R7,R2	00067001
000072	4740 8056		00056	73	BL	OUTT2 DESTEND NOT REACHED	00068001
000076	18DC			74	LR	R13,R12	00069001
				75 *			00070001
				76		RETURN (14,12) RESTORE REGS AND RETURN	00071001
000078	98EC D00C		0000C	77+	LM	14,12,12(13) RESTORE THE REGISTERS	01-RETUR
00007C	07FE			78+	BR	14 RETURN	01-RETUR
				79 *			00072001
				80 *		EXTERNAL ADDRS	00073001
				81 *			00074001
00007E	0000						
000080	00000000			82	VIOREV	DC V(IHIIOREV)	00075001
000084	00000000			83	VOINAR	DC V(IHIIOINAR)	00076001
				84 *			00077001
000088				85	LTORG		00078001
000088	80000000			86		=X'80000000'	
00008C	00FFFFFF			87		=X'00FFFFFF'	
000090	0004			88		=H'4'	
				89 *			00079001
000000		00000	00120	90	FAS	DSECT	00080001
				91 *			00081001
				92		COPY FSAREA	00082001
				93=*			00001001
				94=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				95=*			00003001
				96=*		STATUS - LEVEL 2.1	00004001

D-Loc Object Code Addr1 Addr2 Stmt Source Statement X390 3.1.04 2012/08/17 13.21

				97=*		00005001
				98=*****		00006001
				99=*		00007001
				100=*	COMMON DATA AREA	00008001
				101=*		00009001
				102=*	FSAREA	00010001
				103=*		00011001
				104=*****		00012001
				105=*		00013001
				106=*	DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				107=*	MODULES DURING THE EXECUTION	00015001
				108=*		00016001
				109=*	ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				110=*	SUBROUTINES) BY R12	00018001
				111=*		00019001
		00000		112=FSAREA	EQU *	00020001
				113=*		00021001
				114=*	SAVE AREAS	00022001
				115=*		00023001
000000				116=	DS 18F STANDARD SAVE AREA	00024001
		00048		117=ASAVE	EQU *-FSAREA ALTERNATE SAVE AREA USED BY	00025001
000048				118=	DS 18F CERTAIN SUBROUTINES	00026001
				119=*		00027001
				120=*	MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				121=*		00029001
		00090		122=FCTVALST	EQU *-FSAREA TEMPORARY STORAGE FOR	00030001
000090				123=	DS D FUNCTION VALUES	00031001
		00098		124=ASTLOC	EQU *-FSAREA DISPL FOR ADDR OF STAND LOCTN	00032001
000098	00000090			125=	DC A(FSAREA+FCTVALST)	00033001
		0009C		126=BRRST	EQU *-FSAREA TEMPORARY SAVE REG BRR	00034001
		0009C		127=HW	EQU BRRST TEMPORARY HALFWORD STORAGE	00035001
00009C				128=	DS F	00036001
		000A0		129=PROLREG	EQU *-FSAREA STORAGE FOR PBT AND LAT WHEN	00037001
0000A0				130=	DS 2A A PROCEDURE IS FORMAL PARAM	00038001
				131=*		00039001
				132=*	HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				133=*		00041001
0000A8				134=	DS 0H	00042001
0000A8	00			135=	DC X'00'	00043001
		000A9		136=PROLPBN	EQU *-FSAREA STORAGE FOR CALLED PBN	00044001
0000A9	00			137=	DC X'00'	00045001
		000AA		138=EIGHT	EQU *-FSAREA CONST FOR REDUCING RAS	00046001
0000AA	0008			139=	DC H'8'	00047001
				140=*		00048001
0000AC				141=	DS 0F	00049001
		000AC		142=ADSTAB	EQU *-FSAREA ADDR OF DSTABLE	00050001
0000AC				143=	DS A IN THE OBJECT PROGRAM	00051001
		000B0		144=ANOTTAB	EQU *-FSAREA ADDR OF NOTE TABLE	00052001
0000B0				145=	DS A (INSERTED BY THE OPEN ROUTINE)	00053001
				146=*		00054001
		000B4		147=IHIFSAST	EQU *	00055001
		000B4		148=PGOPSW	EQU *-FSAREA PROGRAM CHECK OLD PSW	00056001
0000B4				149=	DS 2F	00057001
		000BC		150=FSAPICA	EQU *-FSAREA OLD PICA ADDR	00058001
0000BC	00000000			151=	DC F'0'	00059001
		000C0		152=SCRCS	EQU *-FSAREA SEMICOLON NUMBER	00060001
0000C0				153=	DS H	00061001
		000C2		154=DTSW	EQU *-FSAREA OPTION SWITCHES	00062001
		000C2		155=OPTSW	EQU DTSW	00063001
0000C2	00			156=	DC X'00'	00064001
		000C3		157=FSAERCOD	EQU *-FSAREA DUMP-80, TRACE-40, SHORT-20	00065001
0000C3				158=	DS C ERROR CODE FOR ERROR ROUTINE	00066001
				159=*		00067001
				160=*	RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				161=*		00069001
0000C4				162=	DS 0F	00070001
		000C4		163=IHIFSARS	EQU *	00071001
		000C4		164=RASSTART	EQU *-FSAREA ADDR OF FIRST ENTRY IN RAS-8	00072001
0000C4				165=	DS F	00073001
		000C8		166=RASPT	EQU *-FSAREA RAS POINTER FROM TOP	00074001
0000C8				167=	DS F	00075001
		000CC		168=RASEND	EQU *-FSAREA ADDR OF LAST ENTRY IN RAS+8	00076001
0000CC				169=	DS F	00077001
		000D0		170=RASPB	EQU *-FSAREA RAS POINTER FROM BOTTOM	00078001
0000D0				171=	DS F	00079001
				172=*		00080001
				173=*	LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				174=*		00082001
0000D4				175=BRLIST	DS 0F	00083001
		000D4		176=CAP1	EQU *-FSAREA FIRST PART CAPS	00084001
0000D4	4700 0000	00000		177=	NOP 0	00085001
		000D8		178=CAP2	EQU *-FSAREA SECOND PART CAPS	00086001
0000D8	4700 0000	00000		179=	NOP 0	00087001
		000DC		180=PROLOGP	EQU *-FSAREA PROLOGUE FORMAL PARAMETER ENTRY	00088001
		000DC		181=PROLOGFP	EQU PROLOGP	00089001
0000DC	4700 0000	00000		182=	NOP 0	00090001
		000E0		183=PROLOG	EQU *-FSAREA PROLOGUE PROGRAM USUAL ENTRY	00091001
0000E0	4700 0000	00000		184=	NOP 0	00092001
		000E4		185=RETPROG	EQU *-FSAREA DISPLACEMENT RETURN PROGRAM	00093001
0000E4	4700 0000	00000		186=	NOP 0	00094001
		000E8		187=EPILOGP	EQU *-FSAREA EPILOGUE PROGRAM,PROCEDURE ENTRY	00095001
0000E8	4700 0000	00000		188=	NOP 0	00096001
		000EC		189=EPILOGB	EQU *-FSAREA EPILOGUE PROGRAM,BETA-BLOCK ENTRY	00097001
0000EC	4700 0000	00000		190=	NOP 0	00098001
		000F0		191=EPILPR3	EQU *-FSAREA EPILOGUE PROGRAM ENTRY 3	00099001
0000F0	4700 0000	00000		192=	NOP 0	00100001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.21
		000F4		193=CSWE1	EQU	*-FSAREA	
0000F4	4700 0000		00000	194=	NOP	0	FIRST PART CSWES 00101001
		000F8		195=CSWE2	EQU	*-FSAREA	
0000F8	4700 0000		00000	196=	NOP	0	SECOND PART CSWES 00103001
		000FC		197=LOADPP	EQU	*-FSAREA	
0000FC	4700 0000		00000	198=	NOP	0	LOAD PRECOMPILED PROC ROUTINE 00104001
		00100		199=TRACE	EQU	*-FSAREA	
000100	D200 0000 0000	00000	00000	200=	MVC	0(0),0	00105001
000106	4700 0000		00000	201=	NOP	0	00106001
00010A	4700 0000		00000	202=	NOP	0	00107001
		0010E		203=TERMNTE	EQU	*-FSAREA	
00010E	4700 0000		00000	204=	NOP	0	NORMAL TERMINATION EXIT 00108001
		00112		205=BCR	EQU	*-FSAREA	
000112	0700			206=	BCR	0,0	00109001
		00114		207=GETMSTO	EQU	*-FSAREA	
000114	4700 0000		00000	208=	NOP	0	VARIABLE CONDITIONAL BRANCH 00110001
				209=*			00111001
		00118		210=VALUCALL	EQU	*-FSAREA	
000118	4700 0000		00000	211=	NOP	0	00112001
		0011C		212=IORLST	EQU	*-FSAREA	
00011C	4700 0000		00000	213=	NOP	0	00113001
				214=*			00114001
		001CC		215=FSAERR	EQU	X'1CC'	00115001
				216=*			DISPL FOR ERROR LIST 00116001
				217=*			00117001
				218=*			DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA 00118001
		0020C		219=OUTOFB	EQU	FSAERR+4*16	00119001
00218				220=NUMBIND	EQU	FSAERR+4*19	00120001
00208				221=ARRAYBD	EQU	FSAERR+4*15	00121001
0026C				222=ERROR40	EQU	FSAERR+4*40	00122001
00224				223=OERR22	EQU	FSAERR+4*22	00123001
00210				224=ENDLESL	EQU	FSAERR+4*17	00124001
00220				225=OERR21	EQU	FSAERR+4*21	00125001
				226=*			00126001
				227 *			00127001
				228 *			00128001
				229 *			00129001
				230			00130001
					IEZREGS		00131001
		00000		231+R0	EQU	0	00132001
00001				232+R1	EQU	1	00133001
00002				233+R2	EQU	2	00134001
00003				234+R3	EQU	3	00135001
00004				235+R4	EQU	4	00136001
00005				236+R5	EQU	5	00137001
00006				237+R6	EQU	6	00138001
00007				238+R7	EQU	7	00139001
00008				239+R8	EQU	8	00140001
00009				240+R9	EQU	9	00141001
0000A				241+R10	EQU	10	00142001
0000B				242+R11	EQU	11	00143001
0000C				243+R12	EQU	12	00144001
0000D				244+R13	EQU	13	00145001
0000E				245+R14	EQU	14	00146001
0000F				246+R15	EQU	15	00147001
				247 *			00148001
				248		END	00149001

ARR		Symbol Cross Reference							PAGE	
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04 2012/08/17 13.21	
=H'4'	2	00000090	00000001	H	H		88	67		
=X'00FFFFFF'	4	0000008C	00000001	X	X		87	57		
=X'80000000'	4	00000088	00000001	X	X		86	56		
ASAVE	1	00000048		U			117	44		
BRRST	1	0000009C		U			126	127		
DTSW	1	000000C2		U			154	155		
FCTVALST	1	00000090		U			122	125		
FSAERR	1	000001CC		U			215	219 220 221 222 223 224 225		
FSAREA	1	00000000	FFFFFFF	U			112	117 122 124 125 126 129 136 138 142 144 148 150		
								152 154 157 164 166 168 170 176 178 180 183 185		
								187 189 191 193 195 197 199 203 205 207 210 212		
IHIIOREV	1	00000000	00000002	T			82	82		
IHIIOINAR	1	00000000	00000003	T			83	83		
IHIOTARR	1	00000000	00000001	J			32	42U		
OPTSW	1	000000C2		U			155	69		
OUTT1	4	0000004A	00000001	I			58	55B		
OUTT2	4	00000056	00000001	I			65	73B		
OUTT2A	2	00000070	00000001	I			72	68B 70B		
PROLOGP	1	000000DC		U			180	181		
R1	1	00000001		U			232	54M 57M 58 59		
R12	1	0000000C		U			243	43M 69 74		
R13	1	0000000D		U			244	43 44M 74M		
R14	1	0000000E		U			245	50M 66M		
R15	1	0000000F		U			246	41 49M 50B 65M 66B		
R2	1	00000002		U			233	58M 61M 72		
R3	1	00000003		U			234	45M 56M 60 61		
R7	1	00000007		U			238	59M 60M 67M 71M 72		
R8	1	00000008		U			239	41M 42U		
VIOREV	4	00000080	00000001	V	V		82	49		
VOINAR	4	00000084	00000001	V	V		83	65		

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ARR	Dsect Cross Reference					PAGE	7
Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17 13.21
FAS	00000120	FFFFFFFF	90		PRIMARY INPUT		

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.21
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1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		FSAREA	
5	SYS1.AMODGEN		



ARR				USING Map							PAGE			9
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.21
42		USING	Ordinary	00000001	00000000	00001000	8	00090	73	IHIOTARR,R8				

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHIOTA    PROCSTEP: X390

Primary input: lines    1 to    88 of SYSD.ALGOLFRT.ASM(IHIOTA)

SYSLIB library records read: 295

SYSUT1 work file size: 22265 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 7040 bytes

SYSLIN file records written: 6

TXA000I Return code 0, elapsed time 0.19 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHIOTARR 000092 6

**IHIPTT**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompaT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHIPTT)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00214
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.22
				2 *		00002001
				3 *	COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00003001
				4 *		00004001
				5 *	STATUS - LEVEL 2.1	00005001
				6 *		00006001
				7 *	FUNCTION/OPERATION -	00007001
				8 *	CONSISTS ONLY OF FLOATING POINT CONSTANTS	00008001
				9 *		00009001
				10 *	ENTRY POINT - IHIPTTAB -	00010001
				11 *	USED TO ADDR DESIRED CONSTANT FROM	00011001
				12 *	INREAL AND OUTREAL LONG	00012001
				13 *		00013001
				14 *	INPUT - N/A	00014001
				15 *		00015001
				16 *	OUTPUT - N/A	00016001
				17 *		00017001
				18 *	EXTERNAL ROUTINES - N/A	00018001
				19 *		00019001
				20 *	EXITS - NORMAL - N/A	00020001
				21 *	- ERROR - N/A	00021001
				22 *		00022001
				23 *	TABLES/WORK AREAS - N/A	00023001
				24 *		00024001
				25 *	NOTES -	00025001
				26 *	CONSTANT IS ADDRESSED IN FOLLOWING WAY	00026001
				27 *	LA R15,IHIPTTAB	00027001
				28 *	MD R1,D2(R2,15)	00028001
				29 *	DATA PASSED BY VALUE	00029001
				30 *		00030001
000000		00000	00108	31	IHIPTTAB CSECT	00031001
				32 *		00032001
000000	0000000000000000			33	DC D'0'	00033001
000008	41A0000000000000			34	DC DE1'1'	00034001
000010	4264000000000000			35	DC DE2'1'	00035001
000018	433E800000000000			36	DC DE3'1'	00036001
000020	4427100000000000			37	DC DE4'1'	00037001
000028	45186A0000000000			38	DC DE5'1'	00038001
000030	45F4240000000000			39	DC DE6'1'	00039001
000038	4698968000000000			40	DC DE7'1'	00040001
000040	475F5E1000000000			41	DC DE8'1'	00041001
000048	4E2386F26FC10000			42	DC DE16'1'	00042001
000050	54D3C21BCECCEDA1			43	DC DE24'1'	00043001
000058	5B4EE2D6D415B85B			44	DC DE32'1'	00044001
000060	621D6329F1C35CA5			45	DC DE40'1'	00045001
000068	68AF298D050E4396			46	DC DE48'1'	00046001
000070	6F4140C78940F6A2			47	DC DE56'1'	00047001
000078	76184F03E93FF9F5			48	DC DE64'1'	00048001
000080	7C90E40FBEEA1D3A			49	DC DE72'1'	00049001
				50 *		00050001
000088	401999999999999A			51	DC DE-1'1'	00051001
000090	3F28F5C28F5C28F6			52	DC DE-2'1'	00052001
000098	3E4189374BC6A7F0			53	DC DE-3'1'	00053001
0000A0	3D68DB8BAC710CB3			54	DC DE-4'1'	00054001
0000A8	3CA7C5AC471B4784			55	DC DE-5'1'	00055001
0000B0	3C10C6F7A0B5ED8D			56	DC DE-6'1'	00056001
0000B8	3B1AD7F29ABCAF48			57	DC DE-7'1'	00057001
0000C0	3A2AF31DC4611874			58	DC DE-8'1'	00058001
0000C8	33734ACA5F6226F1			59	DC DE-16'1'	00059001
0000D0	2D1357C299A88EA7			60	DC DE-24'1'	00060001
0000D8	2633EC47AB514E65			61	DC DE-32'1'	00061001
0000E0	1F8B6131BBABCE3			62	DC DE-40'1'	00062001
0000E8	1917624F8A762FD8			63	DC DE-48'1'	00063001
0000F0	123EC56164AF81A3			64	DC DE-56'1'	00064001
0000F8	0BA87FEA27A539EA			65	DC DE-64'1'	00065001
000100	051C45016D841BAA			66	DC DE-72'1'	00066001
				67 *		00067001
				68	END	00068001

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHIPTT PROCSTEP: X390

Primary input: lines 1 to 68 of SYSD.ALGOLFRT.ASM(IHIPTT)

SYSLIB library records read: 0

SYSUT1 work file size: 5951 bytes

SYSUT3 work file size: 5440 bytes

SYSLIN file records written: 7

TXA000I Return code 0, elapsed time 0.08 seconds.

No uninitialized areas found



**IHISAT**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHSAT)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00218
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	1. REDUCE THE CASE TO THE 1ST OCTANT BY USING		00008001
				9 *	ATAN(-X)=-ATAN(X), ATAN(1/X)=PI/2-ATAN(X)		00009001
				10 *	2. REDUCE FURTHER TO THE CASE /X/ LESS THAN TAN(PI/2) BY		00010001
				11 *	ATAN(X)=PI/6+ATAN((X*SQRT3-1)/(X+SQRT3))		00011001
				12 *	3. FOR THE BASIC RANGE (X LESS THAN TAN(PI/12)),		00012001
				13 *	USE A FRACTIONAL APPROXIMATION		00013001
				14 *			00014001
				15 *	ENTRY POINT -		00015001
				16 *	IHISAT - ATAN FUNCTION, SHORT		00016001
				17 *	LA R1,PARMLIST		00017001
				18 *	BALR R14,R15		00018001
				19 *	DATA PASSED BY NAME		00019001
				20 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00020001
				21 *			00021001
				22 *	INPUT -	N/A	00022001
				23 *			00023001
				24 *	OUTPUT -	N/A	00024001
				25 *			00025001
				26 *	EXTERNAL ROUTINES -	N/A	00026001
				27 *			00027001
				28 *	EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0		00028001
				29 *			00029001
				30 *	EXIT - ERROR -	N/A	00030001
				31 *			00031001
				32 *	TABLES/WORKAREAS -	N/A	00032001
				33 *			00033001
000000		00000	000E0	34	IHISATAN	CSECT	00034001
				35 *			00035001
				36	ENTRY	IHISAT	00036001
				37 *			00037001
		00000		38	FPR0	EQU 0	00038001
		00002		39	FPR2	EQU 2	00039001
		00004		40	FPR4	EQU 4	00040001
		00006		41	FPR6	EQU 6	00041001
				42 *			00042001
				43 *			00043001
				44	IHISAT	SAVE (14,12),,'IHISATAN LEVEL 2.1 &SYSDATE &SYSTIME'	00044001
000000	47F0 F026		00026	45+	IHISAT	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			46+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9E2C1E3C1D5			47+	DC	CL32'IHISATAN LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F2			48+	DC	CL1'2' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	49+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				50 *			00045001
		R:F 00000		51	USING	IHISATAN,R15	00046001
00002A	5810 1000		00000	52	L	R1,0(,R1)	00047001
00002E	7801 0000		00000	53	LE	FPR0,0(R1)	00048001
000032	7000 F0A8		000A8	54	STE	FPR0,SIGN	00049001
000036	3000			55	LPER	FPR0,FPR0	00050001
000038	1B11			56	SR	R1,R1	00051001
00003A	7900 F0AC		000AC	57	CE	FPR0,ONE	00052001
00003E	47D0 F04E		0004E	58	BNH	REDUC	00053001
000042	7800 F0AC		000AC	59	LE	FPR0,ONE	00054001
000046	3D00			60	DER	FPR0,FPR0	00055001
000048	3800			61	LER	FPR0,FPR0	00056001
00004A	4110 0008		00008	62	LA	R1,8	00057001
00004E	7900 F0B0		000B0	63	REDUC	CE FPR0,TAN15	00058001
000052	47D0 F06C		0006C	64	BNH	OK	00059001
000056	3800			65	LER	FPR0,FPR0	00060001
000058	7C00 F0B4		000B4	66	ME	FPR0,RT3M1	00061001
00005C	7B00 F0AC		000AC	67	SE	FPR0,ONE	00062001
000060	3A00			68	AER	FPR0,FPR0	00063001
000062	7A00 F0B8		000B8	69	AE	FPR0,RT3	00064001
000066	3D00			70	DER	FPR0,FPR0	00065001
000068	4110 1004		00004	71	LA	R1,4(,R1)	00066001
00006C	3840			72	OK	LER FPR4,FPR0	00067001
00006E	3C00			73	MER	FPR0,FPR0	00068001
000070	3800			74	LER	FPR0,FPR0	00069001
000072	7C00 F0C8		000C8	75	ME	FPR0,C	00070001
000076	3860			76	LER	FPR6,FPR0	00071001
000078	7A00 F0C0		000C0	77	AE	FPR0,A	00072001
00007C	7800 F0C4		000C4	78	LE	FPR0,B	00073001
000080	3D00			79	DER	FPR0,FPR0	00074001
000082	3B06			80	SER	FPR0,FPR6	00075001
000084	7A00 F0CC		000CC	81	AE	FPR0,D	00076001
000088	3C04			82	MER	FPR0,FPR4	00077001
00008A	5910 F0BC		000BC	83	C	R1,KF8	00078001
00008E	4740 F094		00094	84	BL	LABAA	00079001
000092	3300			85	LCER	FPR0,FPR0	00080001
000094	7A01 F0D0		000D0	86	LABAA	AE FPR0,ZERO(R1)	00081001
000098	9180 F0A8		000A8	87	TM	SIGN,X'80'	00082001
00009C	4780 F0A2		000A2	88	BZ	LABBB	00083001
0000A0	3300			89	LCER	FPR0,FPR0	00084001
				90 *			00085001
				91	LABBB	RETURN (14,12)	00086001
0000A2				92+	LABBB	DS 0H	01-RETUR
0000A2	98EC D00C		0000C	93+	LM	14,12,12(13)	01-RETUR
0000A6	07FE			94+	BR	14	01-RETUR
				95 *			00087001
0000A8	00000000			96	SIGN	DC F'0'	00088001
0000AC	41100000			97	ONE	DC X'41100000'	00089001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement		X390 3.1.04	2012/08/17	13.22
0000B0	40449851			98	TAN15	DC X'40449851'	TAN 15 DEGREES			00090001
0000B4	40BB67AF			99	RT3M1	DC X'40BB67AF'	SQRT3-1			00091001
0000B8	411BB67B			100	RT3	DC X'411BB67B'	SQRT3			00092001
0000BC	00000008			101	KF8	DC F'8'				00093001
0000C0	41168A5E			102	A	DC X'41168A5E'	1.4087812			00094001
0000C4	408F239C			103	B	DC X'408F239C'	0.55913709			00095001
0000C8	3FD35F49			104	C	DC X'3FD35F49'	0.051604543			00096001
0000CC	409A6524			105	D	DC X'409A6524'	0.60310579			00097001
				106	*					00098001
0000D0	00000000			107	ZERO	DC F'0'	*			00099001
0000D4	40860A92			108		DC X'40860A92'	PI/6			00100001
0000D8	411921FB			109		DC X'411921FB'	PI/2			00101001
0000DC	4110C152			110		DC X'4110C152'	V PI/3			00102001
				111	*					00103001
				112	*	REGISTER EQUATES				00104001
				113	*					00105001
				114		IEZREGS				00106001
000000				115+R0	EQU	0				01-IEZRE
000001				116+R1	EQU	1				01-IEZRE
000002				117+R2	EQU	2				01-IEZRE
000003				118+R3	EQU	3				01-IEZRE
000004				119+R4	EQU	4				01-IEZRE
000005				120+R5	EQU	5				01-IEZRE
000006				121+R6	EQU	6				01-IEZRE
000007				122+R7	EQU	7				01-IEZRE
000008				123+R8	EQU	8				01-IEZRE
000009				124+R9	EQU	9				01-IEZRE
00000A				125+R10	EQU	10				01-IEZRE
00000B				126+R11	EQU	11				01-IEZRE
00000C				127+R12	EQU	12				01-IEZRE
00000D				128+R13	EQU	13				01-IEZRE
00000E				129+R14	EQU	14				01-IEZRE
00000F				130+R15	EQU	15				01-IEZRE
				131	*					00107001
				132		END				00108001

[illegible]

Register References (M=modified, B=branch, U=USING, D=DROP, N=index)

X390 3.1.04 2012/08/17 13.22

0(0)	49	93M							
1(1)	49	52M	53N	56M	62M	71M	83	86N	93M
2(2)	49	93M							
3(3)	49	93M							
4(4)	49	93M							
5(5)	49	93M							
6(6)	49	93M							
7(7)	49	93M							
8(8)	49	93M							
9(9)	49	93M							
10(A)	49	93M							
11(B)	49	93M							
12(C)	49	93M							
13(D)	49	93							
14(E)	49	93M	94B						
15(F)	45B	49	51U	93M					

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.22
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
2	SYSD.TOOLS.MACLIB		SAVE
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

TAN				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.22
51		USING	Ordinary	00000001	00000000	00001000	15	000D0	88	IHISATAN,R15				



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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHISAT      PROCSTEP: X390

Primary input: lines      1 to      108 of SYSD.ALGOLFRT.ASM(IHISAT)

SYSLIB library records read: 161

SYSUT1 work file size: 12721 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 8640 bytes

SYSLIN file records written: 6

TXA000I Return code 0, elapsed time 0.15 seconds.

No uninitialized areas found

**IHISEX**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
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Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHISEX)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00222
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	Y =	X*LOG2(E) = 4R-S-T	00008001
				9 *	WHERE R AND S ARE INTEGERS		00009001
				10 *	T FRACTION AND BOTH S AND T ARE NON NEGATIVE		00010001
				11 *	THEN E**X = 2**Y =	(16**R)(2**S)N2*-T	00011001
				12 *			00012001
				13 *	ENTRY POINT -		00013001
				14 *	IHISEX -	EXP FUNCTION, SHORT	00014001
				15 *	LA	R1,PARMLIST	00015001
				16 *	BALR	R14,R15	00016001
				17 *	DATA PASSED BY NAME		00017001
				18 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00018001
				19 *			00019001
				20 *	INPUT -	N/A	00020001
				21 *			00021001
				22 *	OUTPUT -	N/A	00022001
				23 *			00023001
				24 *	EXTERNAL ROUTINES -	N/A	00024001
				25 *			00025001
				26 *	EXIT -	NORMAL - RETURN VIA R14, RESULT IN FPR0	00026001
				27 *			00027001
				28 *	EXIT -	ERROR - IF ARGUMENT NOT POSITIVE GOTO ERROR	00028001
				29 *	OUTINE VIA		00029001
				30 *	B	FSAERR+25*4(R13)	00030001
				31 *			00031001
				32 *	TABLES/WORKAREAS -	N/A	00032001
				33 *			00033001
000000		00000	00132	34	IHISEXPT	CSECT	00034001
				35 *			00035001
				36	ENTRY	IHISEX	00036001
				37 *			00037001
		00000		38	FPR0	EQU 0 RESULT REGISTER	00038001
				39 *			00039001
				40	IHISEX	SAVE (14,12),, 'IHISEXPT LEVEL 2.1 &SYSDATE &SYSTIME'	00040001
000000	47F0 F026		00026	41+	IHISEX	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			42+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9E2C5E7D7E3			43+	DC	CL32'IHISEXPT LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F2			44+	DC	CL1'2' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	45+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				46 *			00041001
		R:F	00000	47	USING	IHISEXPT,R15	00042001
00002A	5810 1000		00000	48	L	R1,0(,R1)	00043001
00002E	7800 1000		00000	49	LE	FPR0,0(,R1)	00044001
000032	7900 F0FC		000FC	50	CE	FPR0,MAX	> MAX ?
000036	4720 F0F2		000F2	51	BH	ERROR	YES, ERROR
00003A	7900 F100		00100	52	CE	FPR0,MIN	> MIN ?
00003E	4720 F048		00048	53	BH	OK1	YES, ACCEPTABLE
000042	3B00			54	SER	FPR0,FPR0	VERY SMALL, GIVE 0 AS ANSWER
000044	47F0 F0EC		000EC	55	B	EXIT	00050001
				56 *			00051001
000048	5810 1000		00000	57	OK1	L R1,0(,R1)	PICK UP ARGUMENT AGAIN
00004C	8D00 0008		00008	58	SLDL	R0,8	00052001
000050	5400 F108		00108	59	N	R0,MASK	=X'0000007F' CHARACTERISTIC OF X
000054	4900 F130		00130	60	CH	R0,SMALL	R0 > 57 ?
000058	4720 F064		00064	61	BH	OK2	YES, BRANCH
00005C	7800 F104		00104	62	LE	FPR0,ONE	NO, ABS VALUE OF X < 2**-28
				63 *			GIVE 1 AS RESULT
000060	47F0 F0EC		000EC	64	B	EXIT	THIS AVOIDS SHIFT TROUBLE
				65 *			00059001
000064	8810 0001		00001	66	OK2	SRL R1,1	NORMAL CASE MANTISSA OF X IN R1
000068	8900 0002		00002	67	SLL	R0,2	B0 -4*CHARACTERISTIC
00006C	1320			68	LCR	R2,R0	00063001
00006E	5C00 F10C		0010C	69	M	R0,LOG2E	LOG E BASE 2 IN B1, PROD IN B2
000072	8C00 211F		0011F	70	SRDL	R0,287(R2)	B33 /R/ IN R0, /S+T/ IN R1
000076	3200			71	LTER	FPR0,FPR0	00066001
000078	47D0 F084		00084	72	BNP	OK3	X NOT POSITIVE, BRANCH
00007C	5700 F110		00110	73	X	R0,ALLF	X POSITIVE, -R = -R(R'+1) IN R0
000080	5710 F110		00110	74	X	R1,ALLF	S+T = 4-(S'+T') IN R1
000084	8900 0018		00018	75	OK3	SLL R0,24	00070001
000088	1820			76	LR	R2,R0	SAVE -R IN R2 B7, CHAR MODIFIER
00008A	8D00 0002		00002	77	SLDL	R0,2	S IN R0 LOW, T IN R1 HIGH
00008E	1830			78	LR	R3,R0	SAVE S IN R3, FOR SHIFT COUNT
000090	8810 0004		00004	79	SRL	R1,4	T (B3)
000094	1861			80	LR	R6,R1	SAVE T IN R6 (B3)
000096	1C01			81	MR	R0,R1	T*T (B7)
000098	1850			82	LR	R5,R0	00077001
00009A	5C40 F11C		0011C	83	M	R4,C	C*T*T IN R4 (B4)
00009E	5A00 F114		00114	84	A	R0,A	00079001
0000A2	1850			85	LR	R5,R0	A+T*T IN R5 (B7)
0000A4	5800 F118		00118	86	L	R0,B	00080001
0000A8	1D05			87	DR	R0,R5	B/(A+T*T) IN R1 (B3)
0000AA	1B16			88	SR	R1,R6	00082001
0000AC	8810 0001		00001	89	SRL	R1,1	-T+B/(A+T*T) IN R1 (B4)
0000B0	5A10 F120		00120	90	A	R1,D	00084001
0000B4	1A14			91	AR	R1,R4	C*T*T+D-T+B/(A+T*T) (B4)
0000B6	1846			92	LR	R4,R6	00086001
0000B8	8840 0002		00002	93	SRL	R4,2	2*T (B6)
0000BC	1D41			94	DR	R4,R1	2*T/(C*T*T+D-T+B/(A+T*T)) (B1)
0000BE	5A50 F124		00124	95	A	R5,FXONE	2*(-T) NOW READY IN B1
0000C2	8850 3000		00000	96	SRL	R5,0(R3)	(2**-S)(2**-T) READY (B1)
0000C6	5A50 F128		00128	97	A	R5,FUDGE	ROUND AND
							00092001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
0000CA	5950 F124		00124	98	C	R5, FXONE	00093001
0000CE	4740 F0DA		000DA	99	BL	OK4	00094001
0000D2	5850 F104		00104	100	L	R5, ONE	00095001
0000D6	47F0 F0E2		000E2	101	B	JOIN	00096001
			102	*			00097001
0000DA	8850 0006		00006	103	OK4	SRL R5, 6	00098001
0000DE	5650 F124		00124	104	O	R5, FXONE	00099001
0000E2	1B52			105	JOIN	SR R5, R2	00100001
0000E4	5050 F12C		0012C	106	ST	R5, BUFF	00101001
0000E8	7800 F12C		0012C	107	LE	FPR0, BUFF	00102001
			108	*			00103001
			109	EXIT	RETURN (14,12)	RESTORE REGS AND RETURN	00104001
0000EC			110	EXIT	DS 0H		01-RETUR
0000EC	98EC D00C		0000C	111	LM	14,12,12(13)	01-RETUR
0000F0	07FE			112	BR	14	01-RETUR
			113	*			00105001
0000F2	58D0 D004		00004	114	ERROR	L R13,4(,R13)	00106001
0000F6	47FD 022C		0022C	115	B	FSAERR+24*4(R13)	00107001
			116	*			00108001
		001CC		117	FSAERR	EQU X'1CC'	00109001
			118	*			00110001
0000FA	0000						
0000FC			119		DC	0F'0'	00111001
0000FC	42AEAC4F		120	MAX	DC	X'42AEAC4F'	00112001
000100	C2B437E0		121	MIN	DC	X'C2B437E0'	00113001
000104	41100000		122	ONE	DC	X'41100000'	00114001
000108	0000007F		123	MASK	DC	X'0000007F'	00115001
00010C	5C551D95		124	LOG2E	DC	X'5C551D95'	00116001
000110	FFFFFFF		125	ALLF	DC	X'FFFFFFF'	00117001
000114	576AE119		126	A	DC	X'576AE119'	00118001
000118	269F8E6B		127	B	DC	X'269F8E6B'	00119001
00011C	B9059003		128	C	DC	X'B9059003'	00120001
000120	B05CFCE3		129	D	DC	X'B05CFCE3'	00121001
000124	40000000		130	FXONE	DC	X'40000000'	00122001
000128	00000020		131	FUDGE	DC	X'00000020'	00123001
00012C	00000000		132	BUFF	DC	F'0'	00124001
000130	0039		133	SMALL	DC	H'57'	00125001
			134	*			00126001
			135	*		REGISTER EQUATES	00127001
			136	*			00128001
			137		IEZREGS		00129001
00000			138	R0	EQU	0	01-IEZRE
00001			139	R1	EQU	1	01-IEZRE
00002			140	R2	EQU	2	01-IEZRE
00003			141	R3	EQU	3	01-IEZRE
00004			142	R4	EQU	4	01-IEZRE
00005			143	R5	EQU	5	01-IEZRE
00006			144	R6	EQU	6	01-IEZRE
00007			145	R7	EQU	7	01-IEZRE
00008			146	R8	EQU	8	01-IEZRE
00009			147	R9	EQU	9	01-IEZRE
0000A			148	R10	EQU	10	01-IEZRE
0000B			149	R11	EQU	11	01-IEZRE
0000C			150	R12	EQU	12	01-IEZRE
0000D			151	R13	EQU	13	01-IEZRE
0000E			152	R14	EQU	14	01-IEZRE
0000F			153	R15	EQU	15	01-IEZRE
			154	*			00130001
			155		END		00131001

XPT		Symbol Cross Reference							PAGE	
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04 2012/08/17 13.22	
A	4	00000114	00000001	X	X		126	84		
ALLF	4	00000110	00000001	X	X		125	73 74		
B	4	00000118	00000001	X	X		127	86		
BUFF	4	0000012C	00000001	F	F		132	106M 107		
C	4	0000011C	00000001	X	X		128	83		
D	4	00000120	00000001	X	X		129	90		
ERROR	4	000000F2	00000001	I			114	51B		
EXIT	2	000000EC	00000001	H	H		110	55B 64B		
FPR0	1	00000000		U			38	49M 50 52 54M 62M 71M 107M		
FSAERR	1	000001CC		U			117	115B		
FUDGE	4	00000128	00000001	X	X		131	97		
FXONE	4	00000124	00000001	X	X		130	95 98 104		
IHISEX	4	00000000	00000001	I			41	36		
IHISEXPT	1	00000000	00000001	J			34	47U		
JOIN	2	000000E2	00000001	I			105	101B		
LOG2E	4	0000010C	00000001	X	X		124	69		
MASK	4	00000108	00000001	X	X		123	59		
MAX	4	000000FC	00000001	X	X		120	50		
MIN	4	00000100	00000001	X	X		121	52		
OK1	4	00000048	00000001	I			57	53B		
OK2	4	00000064	00000001	I			66	61B		
OK3	4	00000084	00000001	I			75	72B		
OK4	4	000000DA	00000001	I			103	99B		
ONE	4	00000104	00000001	X	X		122	62 100		
R0	1	00000000		U			138	58M 59M 60 67M 68 69M 70M 73M 75M 76 77M 78 81M 82 84M 85 86M 87M 94		
R1	1	00000001		U			139	48M 49 57M 66M 74M 79M 80 81 88M 89M 90M 91M		
R13	1	0000000D		U			151	114M 115		
R15	1	0000000F		U			153	47U		
R2	1	00000002		U			140	68M 70 76M 105		
R3	1	00000003		U			141	78M 96		
R4	1	00000004		U			142	83M 91 92M 93M 94M		
R5	1	00000005		U			143	82M 85M 87 95M 96M 97M 98 100M 103M 104M 105M 106		
R6	1	00000006		U			144	80M 88 92		
SMALL	2	00000130	00000001	H	H		133	60		

[illegible]



Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.22
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1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

XPT				USING Map							PAGE			
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.22
47		USING	Ordinary	00000001	00000000	00001000	15	00130	107	IHISEXPT,R15				

X390 3.1.04 2012/08/17 13.22

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHISEX      PROCSTEP: X390

Primary input: lines      1 to      131 of SYSD.ALGOLFRT.ASM(IHISEX)

SYSLIB library records read: 161

SYSUT1 work file size: 14878 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 10480 bytes

SYSLIN file records written: 8

TXA000I Return code 0, elapsed time 0.16 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHISEXPT 000132 6

**IHISLO**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHISLO)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00226
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	WRITE X =	M*16**P, M MANTISSA	00008001
				9 *	PICK A BASE VALUE A	DEPENDING ON SIZE OF M	00009001
				10 *	WRITE Z =	(M-A)/(M+A)	00010001
				11 *	THEN LOG(X) =	P*LOG(16) + LOG(A) + LOG((1+Z)/(1-Z))	00011001
				12 *			00012001
				13 *	ENTRY POINT -		00013001
				14 *	THISLO -	LOG FUNCTION, SHORT	00014001
				15 *	LA	R1,PARMLIST	00015001
				16 *	BALR	R14,R15	00016001
				17 *	DATA	PASSED BY NAME	00017001
				18 *	THE MODULE IS	ENTERED FROM THE GENERATED OBJECT MODULE	00018001
				19 *			00019001
				20 *	INPUT -	N/A	00020001
				21 *			00021001
				22 *	OUTPUT -	N/A	00022001
				23 *			00023001
				24 *	EXTERNAL ROUTINES -	N/A	00024001
				25 *			00025001
				26 *	EXIT -	NORMAL - RETURN VIA R14, RESULT IN FPR0	00026001
				27 *			00027001
				28 *	EXIT -	ERROR - IF ARGUMENT NOT POSITIVE GOTO ERROR	00028001
				29 *		OUTINE VIA	00029001
				30 *	B	FSAERR+25*4(R13)	00030001
				31 *			00031001
				32 *	TABLES/WORKAREAS -	N/A	00032001
				33 *			00033001
000000		00000	000E4	34	THISLOGM	CSECT	00034001
				35 *			00035001
				36	ENTRY	THISLO	00036001
				37 *			00037001
		00000		38	FPR0	EQU 0	00038001
		00002		39	FPR2	EQU 2	00039001
				40 *			00040001
				41	THISLO	SAVE (14,12),,'THISLOGM LEVEL 2.1 &SYSDATE &SYSTIME'	00041001
000000	47F0 F026		00026	42+	THISLO	B 38(0,15)	01-SAVE
000004	21			43+	DC	AL1(33)	01-SAVE
000005	C9C8C9E2D3D6C7D4			44+	DC	CL32' THISLOGM LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F2			45+	DC	CL1'2'	01-SAVE
000026	90EC D00C		0000C	46+	STM	14,12,12(13)	01-SAVE
				47 *			00042001
		R:F 00000		48	USING	THISLOGM,R15	00043001
00002A	5810 1000		00000	49	L	R1,0(,R1)	00044001
00002E	BF0F 1000		00000	50	ICM	R0,B'1111',0(R1)	00045001
000032	47D0 F0B0		000B0	51	BNP	ERROR	00046001
000036	8C00 0018		00018	52	SRDL	R0,24	00047001
00003A	8810 0008		00008	53	SRL	R1,8	00048001
00003E	5010 F0B4		000B4	54	ST	R1,ARG	00049001
000042	9640 F0B4		000B4	55	OI	ARG,X'40'	00050001
000046	8900 0002		00002	56	SLL	R0,2	00051001
00004A	4000 F0BA		000BA	57	STH	R0,IPART+2	00052001
00004E	1BEF			58	SR	R14,R14	00053001
000050	8810 0015		00015	59	SRL	R1,21	00054001
				60 *			00055001
000054	43E1 F0BC		000BC	61	IC	R14,TABLE(R1)	00056001
000058	7800 F0B4		000B4	62	LE	FPR0,ARG	00057001
00005C	3820			63	LER	FPR2,FPR0	00058001
00005E	7B0E F0C4		000C4	64	SE	FPR0,ONE(R14)	00059001
000062	7A2E F0C4		000C4	65	AE	FPR2,ONE(R14)	00060001
000066	3D02			66	DER	FPR0,FPR2	00061001
000068	7000 F0B4		000B4	67	STE	FPR0,ARG	00062001
00006C	3C00			68	MER	FPR0,FPR0	00063001
00006E	7820 F0D4		000D4	69	LE	FPR2,C4	00064001
000072	3C20			70	MER	FPR2,FPR0	00065001
000074	7A20 F0D8		000D8	71	AE	FPR2,C3	00066001
000078	3C20			72	MER	FPR2,FPR0	00067001
00007A	7A20 F0DC		000DC	73	AE	FPR2,C2	00068001
00007E	3C20			74	MER	FPR2,FPR0	00069001
000080	7A20 F0E0		000E0	75	AE	FPR2,C1	00070001
000084	3C20			76	MER	FPR2,FPR0	00071001
000086	7800 F0B4		000B4	77	LE	FPR0,ARG	00072001
00008A	3C20			78	MER	FPR2,FPR0	00073001
00008C	3A20			79	AER	FPR2,FPR0	00074001
00008E	3A20			80	AER	FPR2,FPR0	00075001
000090	7800 F0B8		000B8	81	LE	FPR0,IPART	00076001
000094	88E0 0001		00001	82	SRL	R14,1	00077001
000098	41E0 E100		00100	83	LA	R14,256(,R14)	00078001
00009C	40E0 F0BA		000BA	84	STH	R14,IPART+2	00079001
0000A0	7B00 F0B8		000B8	85	SE	FPR0,IPART	00080001
0000A4	7C00 F0D0		000D0	86	ME	FPR0,LOGE2	00081001
0000A8	2A02			87	ADR	FPR0,FPR2	00082001
				88 *			00083001
				89	RETURN	(14,12)	00084001
0000AA	98EC D00C		0000C	90+	LM	14,12,12(13)	01-RETUR
0000AE	07FE			91+	BR	14	01-RETUR
				92 *			00085001
0000B0	47FD 0230		00230	93	ERROR	B FSAERR+25*4(R13)	00086001
				94 *			00087001
		001CC		95	FSAERR	EQU X'1CC'	00088001
				96 *			00089001
0000B4	00000000			97	ARG	DC F'0'	00090001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement		X390 3.1.04	2012/08/17	13.22
0000B8	46000000			98	IPART	DC	X'46000000'			00091001
				99	*					00092001
0000BC	0804040400000000			100	TABLE	DC	X'0804040400000000'			00093001
				101	*					00094001
0000C4	41100000			102	ONE	DC	X'41100000'	*	1	FOLLOWING 3 CONSTANTS MUST
0000C8	40400000			103		DC	X'40400000'		1/4	BE CONSECUTIVE
0000CC	40100000			104		DC	X'40100000'	V	1/16	
				105	*					00098001
0000D0	40B17219			106	LOGE2	DC	X'40B17219'		LOG(2) BASE E + FUDGE 1	00099001
0000D4	4048157B			107	C4	DC	X'4048157B'		0.28157778	00100001
0000D8	4047973F			108	C3	DC	X'4047973F'		0.27965158	00101001
0000DC	40667685			109	C2	DC	X'40667685'		0.40024595	00102001
0000E0	40AAAA71			110	C1	DC	X'40AAAA71'		0.66666322	00103001
				111	*					00104001
				112	*					00105001
				113	*	REGISTER	EQUATES			00106001
				114		IEZREGS				00107001
	00000			115+R0	EQU	0				01-IEZRE
	00001			116+R1	EQU	1				01-IEZRE
	00002			117+R2	EQU	2				01-IEZRE
	00003			118+R3	EQU	3				01-IEZRE
	00004			119+R4	EQU	4				01-IEZRE
	00005			120+R5	EQU	5				01-IEZRE
	00006			121+R6	EQU	6				01-IEZRE
	00007			122+R7	EQU	7				01-IEZRE
	00008			123+R8	EQU	8				01-IEZRE
	00009			124+R9	EQU	9				01-IEZRE
	0000A			125+R10	EQU	10				01-IEZRE
	0000B			126+R11	EQU	11				01-IEZRE
	0000C			127+R12	EQU	12				01-IEZRE
	0000D			128+R13	EQU	13				01-IEZRE
	0000E			129+R14	EQU	14				01-IEZRE
	0000F			130+R15	EQU	15				01-IEZRE
				131	*					00108001
				132		END				00109001



[illegible]

Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)									X390 3.1.04	2012/08/17 13.22
0(0)	46	50M	52M	56M	57	90M					
1(1)	46	49M	50	52M	53M	54	59M	61N	90M		
2(2)	46	90M									
3(3)	46	90M									
4(4)	46	90M									
5(5)	46	90M									
6(6)	46	90M									
7(7)	46	90M									
8(8)	46	90M									
9(9)	46	90M									
10(A)	46	90M									
11(B)	46	90M									
12(C)	46	90M									
13(D)	46	90	93N								
14(E)	46	58M	61M	64N	65N	82M	83M	84	90M	91B	
15(F)	42B	46	48U	90M							

Con	Source	Members
-----	--------	---------

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1	SYS1.MACLIB	
	IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB	
3	SYSD.ALGOLFRT.ASM	
4	SYSD.ALGOLFRT.MACLIB	
5	SYS1.AMODGEN	

OGM				USING Map								PAGE		7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.22	
48		USING	Ordinary	00000001	00000000	00001000	15	000E0	86	IHISLOGM,R15				

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHISLO    PROCSTEP: X390

Primary input: lines    1 to    109 of SYSD.ALGOLFRT.ASM(IHISLO)

SYSLIB library records read: 161

SYSUT1 work file size: 12623 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 8720 bytes

SYSLIN file records written: 7

TXA000I Return code 0, elapsed time 0.15 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHISLOGM 0000E4 4

# IHSOR

## LEVEL

### V2.M01

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
LAngeue(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSUpPess	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SysterM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHISOR)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00230
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	CONVERT BINARY ARITHMETIC VALUE FROM SECOND PARAMETER		00008001
				9 *	TO ZONED DECIMAL FORM AND TRANSFER TO AN OUTPUT BUFFER		00009001
				10 *			00010001
				11 *	ENTRY POINTS -		00011001
				12 *	IHSOREL -	FROM GENERATED OBJECT MODULE	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *	DATA PASSED BY NAME		00015001
				16 *	IHSORAR -	FROM ARRAY MODULE IHIOAR	00016001
				17 *	LA	R7,DATA	00017001
				18 *	BALR	R14,R15	00018001
				19 *	DATA PASSED BY NAME		00019001
				20 *			00020001
				21 *	INPUT -	N/A	00021001
				22 *			00022001
				23 *	OUTPUT -	N/A	00023001
				24 *			00024001
				25 *	EXTERNAL ROUTINES -		00025001
				26 *	IHIOR -	EVALUATE DATA SET NUMBER	00026001
				27 *	-	OPEN DATA SET	00027001
				28 *	-	CHANGE TO NEXT OUTPUT RECORD	00028001
				29 *	IHIFSA -	CNVIR - CONVERT INTEGER TO REAL SHORT	00029001
				30 *			00030001
				31 *	EXIT -	NORMAL - RELOAD REGISTERS AND RETURN VIA R14	00031001
				32 *			00032001
				33 *	EXIT -	ERROR - TOO LONG RECORD NO 38	00033001
				34 *	BRANCH TO	IHIFSA	00034001
				35 *	L	R13,IHIFSA	00035001
				36 *	B	FSAERR+XX*4(R13) XX ERROR NO	00036001
				37 *			00037001
				38 *	TABLES -	PTTAB - POWER OF TEN TABLE, SHORT PREC	00038001
				39 *			00039001
				40 *	NOTES -		00040001
				41 *	LINKING TO	IHSORAR DEVIATES FROM STANDARD	00041001
				42 *			00042001
000000		00000	00380	43	IHSOREA	CSECT	00043001
				44 *			00044001
				45	ENTRY	IHSOREL	00045001
				46	ENTRY	IHSORAR	00046001
				47 *			00047001
	R:5	00000		48	USING	DSTABLE,R5	00048001
				49 *			00049001
		00000		50	FPR0	EQU 0 FLOATING-POINT NUMBER	00050001
				51 *			00051001
				52 *	R2	EXPONENT > 8	00052001
				53 *	R3	EXPONENT < 8	00053001
				54 *	R4	CHARACTER POINTER	00054001
				55 *	R7	-> SOURCE	00055001
				56 *	R8	BLANK COUNTER	00056001
				57 *	R9	DECIMAL EXPONENT	00057001
				58 *	R10	-> POWER TEN TABLE	00058001
				59 *			00059001
				60 *	DISPLACEMENTS IN	ADRLST IN IHIFSA	00060001
				61 *			00061001
		00000		62	CI	EQU 0 DISPLACEMENT FOR - IHIORCI	00062001
		00004		63	CL	EQU 4 IHIORCL	00063001
		00008		64	EV	EQU 8 IHIOREV	00064001
		0000C		65	NX	EQU 12 IHIORNX	00065001
		00010		66	OP	EQU 16 IHIOROP	00066001
		00014		67	OQ	EQU 20 IHIOROQ	00067001
				68 *			00068001
				69	IHSORAR	SAVE (14,12),, 'IHSORAR LEVEL 2.1 &SYSDATE &SYSTIME'	00069001
000000	47F0	F026	00026	70+	IHSORAR	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			71+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9E2D6D9C1D9			72+	DC	CL32 'IHSORAR LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F2			73+	DC	CL1 '2' IDENTIFIER	01-SAVE
000026	90EC	D00C	0000C	74+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				75 *			00070001
		R:F	00000	76	USING	IHSORAR,R15	00071001
00002A	18BD			77	LR	R11,R13 CHAIN SAVE AREAS	00072001
00002C	41D0	F338	00338	78	LA	R13,SAVEAREA	00073001
000030	50B0	D004	00004	79	ST	R11,4(,R13)	00074001
000034	50D0	B008	00008	80	ST	R13,8(,R11)	00075001
000038	41B0	F07C	0007C	81	LA	R11,COMMON	00076001
				82	DROP	R15	00077001
		R:B	0007C	83	USING	COMMON,R11	00078001
00003C	47F0	B00E	0008A	84	B	SOUFLPA	00079001
				85 *			00080001
				86	DROP	R11	00081001
				87 *			00082001
				88	IHSOREL	SAVE (14,12),, 'IHSOREL LEVEL 2.1 &SYSDATE &SYSTIME'	00083001
000040	47F0	F026	00026	89+	IHSOREL	B 38(0,15) BRANCH AROUND ID	01-SAVE
000044	21			90+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000045	C9C8C9E2D6D9C5D3			91+	DC	CL32 'IHSOREL LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000065	F2			92+	DC	CL1 '2' IDENTIFIER	01-SAVE
000066	90EC	D00C	0000C	93+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				94 *			00084001
		R:F	00040	95	USING	IHSOREL,R15	00085001
00006A	18CD			96	LR	R12,R13 R12 -> FSA STORAGE AREA TO FSA	00086001
00006C	41D0	F2F8	00338	97	LA	R13,SAVEAREA	00087001

Active USINGS: IHISOREA+X'40',R15 DSTABLE,R5

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
000070	50C0 D004		00004	98	ST	R12,4(,R13)	00088001
000074	50D0 C008		00008	99	ST	R13,8(,R12)	00089001
000078	41B0 F03C		0007C	100	LA	R11,COMMON	00090001
				101	DROP	R15	00091001
	R:B	0007C		102	USING	COMMON,R11	00092001
				103	*		00093001
				104	*	EVALUATE DATASET NUMBER (EVDSN)	00094001
				105	*		00095001
00007C	58F0 C11C		0011C	106	COMMON	L R15,IORLST(,R12)	00096001
000080	58F0 F008		00008	107	L	R15,EV(,R15)	00097001
000084	05EF			108	BALR	R14,R15	00098001
000086	5870 1004		00004	109	SOUFLP	L R7,4(,R1)	00099001
00008A	9630 501A	0001A		110	SOUFLPA	OI DSF,DS2+DS3	00100001
00008E	94FE 501A	0001A		111	NI	DSF,255-DS7	00101001
000092	1277			112	LTR	R7,R7	00102001
000094	4720 B036		000B2	113	BP	REAL1	00103001
				114	*		00104001
				115	*	CALL CONVERSION ROUTINE (LOADED IN FSA)	00105001
				116	*		00106001
000098	90ED D008		00008	117	STM	R14,R13,8(R13)	00107001
00009C	182D			118	LR	R2,R13	00108001
00009E	58E0 7000		00000	119	L	14,0(,R7)	00109001
0000A2	417C 0120		00120	120	LA	R7,ACNVIRD(R12)	00110001
0000A6	18DC			121	LR	R13,R12	00111001
0000A8	0587			122	BALR	R8,R7	00112001
0000AA	98ED 2008		00008	123	LM	R14,R13,8(R2)	00113001
0000AE	47F0 B03A		000B6	124	B	REAL1A	00114001
				125	*		00115001
0000B2	7800 7000		00000	126	REAL1	LE FPR0,0(,R7)	00116001
0000B6	9180 501A	0001A		127	REAL1A	TM DSF,DS0	00117001
0000BA	4710 B050		000CC	128	BO	NOCLO	00118001
0000BE	9602 501A	0001A		129	OI	DSF,DS6	00119001
0000C2	58F0 C11C		0011C	130	L	R15,IORLST(,R12)	00120001
0000C6	58F0 F010		00010	131	L	R15,OP(,R15)	00121001
0000CA	05EF			132	BALR	R14,R15	00122001
0000CC	5840 5004		00004	133	NOCLO	L R4,R	00123001
0000D0	4180 400D		000D0	134	LA	R8,13(,R4)	00124001
0000D4	5980 5008		00008	135	C	R8,RE	00125001
0000D8	47D0 B094		00110	136	BNH	NONEXREC	00126001
0000DC	5880 5008		00008	137	L	R8,RE	00127001
0000E0	1B84			138	SR	R8,R4	00128001
0000E2	47D0 B076		000F2	139	BNP	CALLNXT	00129001
0000E6	9240 4000	00000		140	BLANKS	MVI 0(R4),C' '	00130001
0000EA	4140 4001		00001	141	LA	R4,1(,R4)	00131001
0000EE	4680 B06A		000E6	142	BCT	R8,BLANKS	00132001
0000F2	58F0 C11C		0011C	143	CALLNXT	L R15,IORLST(,R12)	00133001
0000F6	58F0 F00C		0000C	144	L	R15,NX(,R15)	00134001
0000FA	05EF			145	BALR	R14,R15	00135001
0000FC	5840 5004		00004	146	L	R4,R	00136001
000100	4180 400D		000D0	147	LA	R8,13(,R4)	00137001
000104	5980 5008		00008	148	C	R8,RE	00138001
000108	4720 B204		00280	149	BH	ORSERR	00139001
00010C	9610 501A	0001A		150	OI	DSF,DS3	00140001
000110	4190 0007		00007	151	NONEXREC	LA R9,7	00141001
000114	3200			152	LTER	FPR0,FPR0	00142001
000116	4770 B0B0		0012C	153	BNZ	NOT0	00143001
00011A	9240 4000	00000		154	MVI	0(R4),C' '	00144001
00011E	D20B 4001	4000	00001	155	MVC	1(12,R4),0(R4)	00145001
000124	92F0 4001		00001	156	MVI	1(R4),C'0'	00146001
000128	47F0 B1A8		00224	157	B	TERMIN	00147001
				158	*		00148001
00012C	924E 4000	00000		159	NOT0	MVI 0(R4),C'+'	00149001
000130	4720 B0BE		0013A	160	BP	EXPLOOP	00150001
000134	9260 4000	00000		161	MVI	0(R4),C'-'	00151001
000138	3300			162	LCER	FPR0,FPR0	00152001
00013A	7000 B230		002AC	163	EXPLOOP	STE FPR0,CHAR	00153001
00013E	1B33			164	SR	R3,R3	00154001
000140	4330 B230		002AC	165	IC	R3,CHAR	00155001
000144	9200 B22D	002A9		166	MVI	SE,0	00156001
000148	5B30 B210		0028C	167	S	R3,KF70	00157001
00014C	4720 B0DE		0015A	168	BP	EXPLOAA	00158001
000150	4780 B14C		001C8	169	BZ	EXP0	00159001
000154	9280 B22D	002A9		170	MVI	SE,X'80'	00160001
000158	1333			171	LCR	R3,R3	00161001
00015A	4C30 B214		00290	172	EXPLOAA	MH R3,LOG2	00162001
00015E	4A30 B216		00292	173	AH	R3,ROUND	00163001
000162	8830 000E		0000E	174	SRL	R3,14	00164001
000166	5930 B210		0028C	175	C	R3,KF70	00165001
00016A	47D0 B0F6		00172	176	BNH	EXPLOBB	00166001
00016E	5830 B210		0028C	177	L	R3,KF70	00167001
000172	9180 B22D	002A9		178	EXPLOBB	TM SE,X'80'	00168001
000176	41A0 B238		002B4	179	LA	R10,PTTAB-4	00169001
00017A	4780 B108		00184	180	BZ	EXPLOCC	00170001
00017E	1B93			181	SR	R9,R3	00171001
000180	47F0 B10E		0018A	182	B	EXPLODD	00172001
000184	41A0 A040		00040	183	EXPLOCC	LA R10,64(,R10)	00173001
000188	1A93			184	AR	R9,R3	00174001
00018A	1823			185	EXPLODD	LR R2,R3	00175001
00018C	1B33			186	SR	R3,R3	00176001
00018E	8E20 0003		00003	187	SRDA	R2,3	00177001
000192	8B20 0003		00003	188	SLA	R2,3	00178001
000196	4780 B13A		001B6	189	TESTEXP1	BZ EXP1LS8	00179001
00019A	5920 B20C		00288	190	C	R2,KF72	00180001
00019E	4740 B132		001AE	191	BL	EXP1LS8A	00181001
0001A2	7C00 A040		00040	192	ME	FPR0,64(,R10)	00182001
0001A6	5B20 B20C		00288	193	S	R2,KF72	00183001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
0001AA	47F0 B11A		00196	194	B	TESTEXP1	00184001
				195	*		00185001
0001AE	8820 0001		00001	196	EXP1LS8A	SRL R2,1	00186001
0001B2	7C02 A01C		0001C	197	ME	FPR0,28(R2,R10)	00187001
0001B6	8830 001B		0001B	198	EXP1LS8	SRL R3,27	00188001
0001BA	1233			199	LTR	R3,R3	00189001
0001BC	4780 B0BE		0013A	200	BZ	EXPLOOP	00190001
0001C0	7C03 A000		00000	201	ME	FPR0,0(R3,R10)	00191001
0001C4	47F0 B0BE		0013A	202	B	EXPLOOP	00192001
				203	*		00193001
0001C8	7900 B218		00294	204	EXP0	CE FPR0,TENP7	00194001
0001CC	4780 B1EA		00266	205	BNL	DIG8	00195001
0001D0	9200 B230	002AC		206	EXP0AA	MVI CHAR,0	00196001
0001D4	5830 B230		002AC	207	L	R3,CHAR	00197001
0001D8	4E30 B234		002B0	208	CVD	R3,BUFF	00198001
0001DC	F384 4001	B237 00001	002B3	209	UNPK	1(9,R4),BUFF+3(5)	00199001
0001E2	96F0 4009	00009		210	OI	9(R4),X'F0'	00200001
0001E6	95F0 4002	00002		211	CLI	2(R4),C'0'	00201001
0001EA	4770 B17A		001F6	212	BNE	TRANSAA	00202001
0001EE	0690			213	BCTR	R9,0	00203001
0001F0	D206 4002	4003 00002	00003	214	MVC	2(7,R4),3(R4)	00204001
0001F6	D200 4001	4002 00001	00002	215	TRANSAA	MVC 1(1,R4),2(R4)	00205001
0001FC	924B 4002	00002		216	MVI	2(R4),C'.'	00206001
000200	927D 4009	00009		217	MVI	9(R4),C''''	00207001
000204	4E90 B234		002B0	218	DECEXP	CVD R9,BUFF	00208001
000208	F321 400A	B23A 0000A	002B6	219	UNPK	10(3,R4),BUFF+6(2)	00209001
00020E	1299			220	LTR	R9,R9	00210001
000210	4780 B1A0		0021C	221	BNM	DECEXPAA	00211001
000214	9260 400A	0000A		222	MVI	10(R4),C'-'	00212001
000218	47F0 B1A4		00220	223	B	DECEXPBB	00213001
				224	*		00214001
00021C	924E 400A	0000A		225	DECEXPAA	MVI 10(R4),C'+'	00215001
000220	96F0 400C	0000C		226	DECEXPBB	OI 12(R4),X'F0'	00216001
000224	4140 400D		0000D	227	TERMIN	LA R4,13(,R4)	00217001
000228	1B88			228	SR	R8,R8	00218001
00022A	4380 5018		00018	229	IC	R8,K	00219001
00022E	5940 5008		00008	230	TERMINAA	C R4,RE	00220001
000232	4780 B1DC		00258	231	BE	RECEND	00221001
000236	9240 4000	00000		232	MVI	0(R4),C' '	00222001
00023A	4140 4001		00001	233	LA	R4,1(,R4)	00223001
00023E	4680 B1B2		0022E	234	BCT	R8,TERMINAA	00224001
000242	5940 5008		00008	235	C	R4,RE	00225001
000246	4780 B1DC		00258	236	BE	RECEND	00226001
00024A	5040 5004		00004	237	ST	R4,R	00227001
00024E	58D0 B2C0		0033C	238	TERMINBB	L R13,SAVEAREA+4	00228001
				239	*		00229001
				240	RETURN	(14,12)	00230001
000252	98EC D00C		0000C	241+	LM	14,12,12(13)	00231001
000256	07FE			242+	BR	14	00232001
				243	*		00233001
000258	58F0 C11C		0011C	244	RECEND	L R15,IORLST(,R12)	00234001
00025C	58F0 F00C		0000C	245	L	R15,NX(,R15)	00235001
000260	05EF			246	BALR	R14,R15	00236001
000262	47F0 B1D2		0024E	247	B	TERMINBB	00237001
				248	*		00238001
000266	7E00 B21C		00298	249	DIG8	AU FPR0,FIVE	00239001
00026A	7000 B230		002AC	250	STE	FPR0,CHAR	00240001
00026E	7900 B220		0029C	251	CE	FPR0,TWOP24B	00241001
000272	4740 B154		001D0	252	BL	EXP0AA	00242001
000276	D208 4001	B224 00001	002A0	253	MVC	1(9,R4),TWOP24	00243001
00027C	47F0 B188		00204	254	B	DECEXP	00244001
				255	*		00245001
000280	18DC			256	ORSERR	LR 13,R12	00246001
000282	47FC 0264		00264	257	B	FSAERR+38*4(R12)	00247001
				258	*		00248001
		00120		259	ACNVIRD	EQU X'120'	00249001
				260	*		00250001
				261	*	INTERNAL CONSTANTS AND STORAGE	
				262	*		
000286	0000			263	KF72	DC F'72'	00251001
000288	00000048			264	KF70	DC F'70'	00252001
00028C	00000046			265	LOG2	DC H'19728'	00253001
000290	4D10			266	ROUND	DC H'8192'	00254001
000292	2000			267	TENP7	DC X'46989680'	00255001
000294	46989680			268	FIVE	DC X'46000005'	00256001
000298	46000005			269	TWOP24B	DC X'47100000'	00257001
00029C	47100000			270	TWOP24	DC C'1.677722' ''	00258001
0002A0	F14BF6F7F7F7F2F2			271	SE	DC X'00'	00259001
0002A9	00						
0002AA	0000						
0002AC	00000000			272	CHAR	DC E'0'	00260001
0002B0	0000000000000000			273	BUFF	DC D'0'	00261001
				274	*		00262001
				275	*	POWER OF TEN TABLE SHORT PRECISION	00263001
				276	*		00264001
0002B8	41A00000			277	PTTAB	DC EE1'1'	00265001
0002BC	42640000			278		DC EE2'1'	00266001
0002C0	433E8000			279		DC EE3'1'	00267001
0002C4	44271000			280		DC EE4'1'	00268001
0002C8	45186A00			281		DC EE5'1'	00269001
0002CC	45F42400			282		DC EE6'1'	00270001
0002D0	46989680			283		DC EE7'1'	00271001
0002D4	475F5E10			284		DC EE8'1'	00272001
0002D8	4E2386F2			285		DC EE16'1'	00273001
0002DC	54D3C21C			286		DC EE24'1'	00274001
0002E0	5B4EE2D7			287		DC EE32'1'	00275001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
0002E4	621D632A			288	DC	EE40'1'	00276001
0002E8	68AF298D			289	DC	EE48'1'	00277001
0002EC	6F4140C8			290	DC	EE56'1'	00278001
0002F0	76184F04			291	DC	EE64'1'	00279001
0002F4	7C90E410			292	DC	EE72'1'	00280001
0002F8	4019999A			293	DC	EE-1'1'	00281001
0002FC	3F28F5C3			294	DC	EE-2'1'	00282001
000300	3E418937			295	DC	EE-3'1'	00283001
000304	3D68DB8C			296	DC	EE-4'1'	00284001
000308	3CA7C5AC			297	DC	EE-5'1'	00285001
00030C	3C10C6F8			298	DC	EE-6'1'	00286001
000310	3B1AD7F3			299	DC	EE-7'1'	00287001
000314	3A2AF31E			300	DC	EE-8'1'	00288001
000318	33734ACA			301	DC	EE-16'1'	00289001
00031C	2D1357C3			302	DC	EE-24'1'	00290001
000320	2633EC48			303	DC	EE-32'1'	00291001
000324	1F8B6131			304	DC	EE-40'1'	00292001
000328	19176250			305	DC	EE-48'1'	00293001
00032C	123EC561			306	DC	EE-56'1'	00294001
000330	0BA87FEA			307	DC	EE-64'1'	00295001
000334	051C4501			308	DC	EE-72'1'	00296001
				309 *			00297001
000338	0000000000000000			310	SAVEAREA DC	18F'0'	00298001
				311 *			00299001
000380				312		LTORG	00300001
				313 *			00301001
				314	DSTABLE DSECT=YES		00302001
000000		00000 00024		315+DSTABLE	DSECT		01-DSTAB
				316+*			01-DSTAB
000000	00000000			317+ADCB	DC	F'0'	01-DSTAB
000004	00000000			318+R	DC	F'0'	01-DSTAB
000008	00000000			319+RE	DC	F'0'	01-DSTAB
00000C	00000000			320+NBB	DC	F'0'	01-DSTAB
000010	00000000			321+BB	DC	F'0'	01-DSTAB
000014	0001			322+S	DC	H'1'	01-DSTAB
000016	0050			323+P	DC	H'80'	01-DSTAB
000018	02			324+K	DC	X'02'	01-DSTAB
000019	00			325+Q	DC	X'00'	01-DSTAB
00001A	0000			326+DSF	DC	H'00'	01-DSTAB
				327+*			01-DSTAB
				328+*		DATASET FLAGS - DSF	01-DSTAB
				329+*			01-DSTAB
	00080			330+DS0	EQU	X'80'	01-DSTAB
	00040			331+DS1	EQU	X'40'	01-DSTAB
	00020			332+DS2	EQU	X'20'	01-DSTAB
	00010			333+DS3	EQU	X'10'	01-DSTAB
	00008			334+DS4	EQU	X'08'	01-DSTAB
	00004			335+DS5	EQU	X'04'	01-DSTAB
	00002			336+DS6	EQU	X'02'	01-DSTAB
	00001			337+DS7	EQU	X'01'	01-DSTAB
				338+*			01-DSTAB
				339+*		DATASET FLAGS - DSF+1	01-DSTAB
				340+*			01-DSTAB
	00080			341+DS8	EQU	X'80'	01-DSTAB
	00040			342+DS9	EQU	X'40'	01-DSTAB
	00020			343+DS10	EQU	X'20'	01-DSTAB
	00010			344+DS11	EQU	X'10'	01-DSTAB
	00008			345+DSEOD	EQU	X'08'	01-DSTAB
	00004			346+DSIOERR	EQU	X'04'	01-DSTAB
	00002			347+DS14	EQU	X'02'	01-DSTAB
	00001			348+DS15	EQU	X'01'	01-DSTAB
				349+*			01-DSTAB
00001C	00000000			350+NOTEADR	DC	F'0'	01-DSTAB
000020	0000			351+BL	DC	H'0'	01-DSTAB
000022	0000			352+	DC	H'0'	01-DSTAB
				353+*			01-DSTAB
	00024			354+DSTABLEL	EQU	*-DSTABLE	01-DSTAB
				355+*			01-DSTAB
				356 *			00303001
000000		00000 00120		357 FAS	DSECT		00304001
				358 *			00305001
				359	COPY	FSAREA	00306001
				360=*			00001001
				361=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				362=*			00003001
				363=*		STATUS - LEVEL 2.1	00004001
				364=*			00005001
				365=*****			00006001
				366=*			00007001
				367=*		COMMON DATA AREA	00008001
				368=*			00009001
				369=*		FSAREA	00010001
				370=*			00011001
				371=*****			00012001
				372=*			00013001
				373=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				374=*		MODULES DURING THE EXECUTION	00015001
				375=*			00016001
				376=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				377=*		SUBROUTINES) BY R12	00018001
				378=*			00019001
	00000			379=FSAREA	EQU	*	00020001
				380=*			00021001
				381=*		SAVE AREAS	00022001
				382=*			00023001
000000				383=	DS	18F	00024001
						STANDARD SAVE AREA	

[illegible]

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
00011C	4700 0000	00000		480=	NOP	0	00121001
				481=*			00122001
		001CC		482=FSAERR	EQU	X'1CC' DISPL FOR ERROR LIST	00123001
				483=*			00124001
				484=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				485=*			00126001
		0020C		486=OUTOFB	EQU	FSAERR+4*16	00127001
		00218		487=NUMBIND	EQU	FSAERR+4*19	00128001
		00208		488=ARRAYBD	EQU	FSAERR+4*15	00129001
		0026C		489=ERROR40	EQU	FSAERR+4*40	00130001
		00224		490=OERR22	EQU	FSAERR+4*22	00131001
		00210		491=ENDLESL	EQU	FSAERR+4*17	00132001
		00220		492=OERR21	EQU	FSAERR+4*21	00133001
				493=*			00134001
				494 *			00307001
				495 *	REGISTER	EQUATES	00308001
				496 *			00309001
				497	IEZREGS		00310001
		00000		498+R0	EQU	0	01-IEZRE
		00001		499+R1	EQU	1	01-IEZRE
		00002		500+R2	EQU	2	01-IEZRE
		00003		501+R3	EQU	3	01-IEZRE
		00004		502+R4	EQU	4	01-IEZRE
		00005		503+R5	EQU	5	01-IEZRE
		00006		504+R6	EQU	6	01-IEZRE
		00007		505+R7	EQU	7	01-IEZRE
		00008		506+R8	EQU	8	01-IEZRE
		00009		507+R9	EQU	9	01-IEZRE
		0000A		508+R10	EQU	10	01-IEZRE
		0000B		509+R11	EQU	11	01-IEZRE
		0000C		510+R12	EQU	12	01-IEZRE
		0000D		511+R13	EQU	13	01-IEZRE
		0000E		512+R14	EQU	14	01-IEZRE
		0000F		513+R15	EQU	15	01-IEZRE
				514 *			00311001
				515	END		00312001

REA	Symbol Cross Reference											PAGE	8
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.22	
ACNVIRD	1	00000120		U			259	120					
BLANKS	4	000000E6	00000001	I			140	142B					
BRRST	1	0000009C		U			393	394					
BUFF	8	000002B0	00000001	D	D		273	208M 209 218M 219					
CALLNXT	4	000000F2	00000001	I			143	139B					
CHAR	4	000002AC	00000001	E	E		272	163M 165 206M 207 250M					
COMMON	4	0000007C	00000001	I			106	81 83U 100 102U					
DECEXP	4	00000204	00000001	I			218	254B					
DECEXPAA	4	0000021C	00000001	I			225	221B					
DECEXPBB	4	00000220	00000001	I			226	223B					
DIG8	4	00000266	00000001	I			249	205B					
DSF	2	0000001A	FFFFFFFF	H	H		326	110M 111M 127 129M 150M					
DSTABLE	1	00000000	FFFFFFFF	J			315	48U 354					
DS0	1	00000080		U			330	127					
DS2	1	00000020		U			332	110					
DS3	1	00000010		U			333	110 150					
DS6	1	00000002		U			336	129					
DS7	1	00000001		U			337	111					
DTSW	1	000000C2		U			421	422					
EV	1	00000008		U			64	107					
EXPLOAA	4	0000015A	00000001	I			172	168B					
EXPLOBB	4	00000172	00000001	I			178	176B					
EXPLOCC	4	00000184	00000001	I			183	180B					
EXPLODD	2	0000018A	00000001	I			185	182B					
EXPLOOP	4	0000013A	00000001	I			163	160B 200B 202B					
EXP0	4	000001C8	00000001	I			204	169B					
EXP0AA	4	000001D0	00000001	I			206	252B					
EXP1LS8	4	000001B6	00000001	I			198	189B					
EXP1LS8A	4	000001AE	00000001	I			196	191B					
FCTVALST	1	00000090		U			389	392					
FIVE	4	00000298	00000001	X	X		268	249					
FPR0	1	00000000		U			50	126M 152M 162M 163 192M 197M 201M 204 249M 250 251					
FSAERR	1	000001CC		U			482	257B 486 487 488 489 490 491 492					
FSAREA	1	00000000	FFFFFFFFE	U			379	384 389 391 392 393 396 403 405 409 411 415 417					
								419 421 424 431 433 435 437 443 445 447 450 452					
								454 456 458 460 462 464 466 470 472 474 477 479					
IHISORAR	4	00000000	00000001	I			70	46 76U					
IHISOREL	4	00000040	00000001	I			89	45 95U					
IORLST	1	0000011C		U			479	106 130 143 244					
K	1	00000018	FFFFFFFF	X	X		324	229					
KF70	4	0000028C	00000001	F	F		264	167 175 177					
KF72	4	00000288	00000001	F	F		263	190 193					
LOG2	2	00000290	00000001	H	H		265	172					
NOCLO	4	000000CC	00000001	I			133	128B					
NONEXREC	4	00000110	00000001	I			151	136B					
NOT0	4	0000012C	00000001	I			159	153B					
NX	1	0000000C		U			65	144 245					
OP	1	00000010		U			66	131					
ORSERR	2	00000280	00000001	I			256	149B					
PROLOGP	1	000000DC		U			447	448					
PTTAB	4	000002B8	00000001	E	E		277	179					
R	4	00000004	FFFFFFFF	F	F		318	133 146 237M					
RE	4	00000008	FFFFFFFF	F	F		319	135 137 148 230 235					
REAL1	4	000000B2	00000001	I			126	113B					
REAL1A	4	000000B6	00000001	I			127	124B					
RECEND	4	00000258	00000001	I			244	231B 236B					
ROUND	2	00000292	00000001	H	H		266	173					
R1	1	00000001		U			499	109					
R10	1	0000000A		U			508	179M 183M 192 197 201					
R11	1	0000000B		U			509	77M 79 80 81M 83U 86D 100M 102U					
R12	1	0000000C		U			510	96M 98 99 106 120 121 130 143 244 256 257					
R13	1	0000000D		U			511	77 78M 79 80 96 97M 98 99 117 118 121M 123M					
								238M					
R14	1	0000000E		U			512	108M 117 123M 132M 145M 246M					
R15	1	0000000F		U			513	76U 82D 95U 101D 106M 107M 108B 130M 131M 132B 143M 144M					
								145B 244M 245M 246B					
R2	1	00000002		U			500	118M 123 185M 187M 188M 190 193M 196M 197					
R3	1	00000003		U			501	164M 165M 167M 171M 172M 173M 174M 175 177M 181 184 185					
								186M 198M 199M 201 207M 208					
R4	1	00000004		U			502	133M 134 138 140 141M 146M 147 154 155 156 159 161					
								209 210 211 214 215 216 217 219 222 225 226 227M					
								230 232 233M 235 237 253					
R5	1	00000005		U			503	48U					
R7	1	00000007		U			505	109M 112M 119 120M 122B 126					
R8	1	00000008		U			506	122M 134M 135 137M 138M 142M 147M 148 228M 229M 234M					
R9	1	00000009		U			507	151M 181M 184M 213M 218 220M					
SAVEAREA	4	00000338	00000001	F	F		310	78 97 238					
SE	1	000002A9	00000001	X	X		271	166M 170M 178					
SOUFLPA	4	0000008A	00000001	I			110	84B					
TENP7	4	00000294	00000001	X	X		267	204					
TERMIN	4	00000224	00000001	I			227	157B					
TERMINAA	4	0000022E	00000001	I			230	234B					
TERMINBB	4	0000024E	00000001	I			238	247B					
TESTEXP1	4	00000196	00000001	I			189	194B					
TRANSAA	6	000001F6	00000001	I			215	212B					
TWOP24	9	000002A0	00000001	C	C		270	253					
TWOP24B	4	0000029C	00000001	X	X		269	251					

Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)																				X390 3.1.04 2012/08/17 13.22												
0(0)	74	93	117	123M	241M																												
1(1)	74	93	109	117	123M	241M																											
2(2)	74	93	117	118M	123M	185M	187M	188M	190	193M	196M	197N	241M																				
3(3)	74	93	117	123M	164M	165M	167M	171M	172M	173M	174M	175	177M	181	184	185	186M	187M	198M	199M	201N	207M											
	208	241M																															
4(4)	74	93	117	123M	133M	134	138	140	141M	146M	147	154	155	156	159	161	209	210	211	214	215	216											
	217	219	222	225	226	227M	230	232	233M	235	237	241M	253																				
5(5)	48U	74	93	117	123M	241M																											
6(6)	74	93	117	123M	241M																												
7(7)	74	93	109M	112M	117	119	120M	122B	123M	126	241M																						
8(8)	74	93	117	122M	123M	134M	135	137M	138M	142M	147M	148	228M	229M	234M	241M																	
9(9)	74	93	117	123M	151M	181M	184M	213M	218	220M	241M																						
10(A)	74	93	117	123M	179M	183M	192	197	201	241M																							
11(B)	74	77M	79	80	81M	83U	86D	93	100M	102U	117	123M	241M																				
12(C)	74	93	96M	98	99	106	117	120N	121	123M	130	143	241M	244	256	257N																	
13(D)	74	77	78M	79	80	93	96	97M	98	99	117	118	121M	123M	238M	241	256M																
14(E)	74	93	108M	117	119M	123M	132M	145M	241M	242B	246M																						
15(F)	70B	74	76U	82D	89B	93	95U	101D	106M	107M	108B	117	123M	130M	131M	132B	143M	144M	145B	241M	244M	245M											
	246B																																



Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.22
DSTABLE	00000024	FFFFFFFF	315	4	DSTABLE			
FAS	00000120	FFFFFFFE	357		PRIMARY INPUT			

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.22
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
		DSTABLE	FSAREA
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.22
48		USING	Ordinary	FFFFFFFF	00000000	00001000	5	0001A	237	DSTABLE,R5			
76		USING	Ordinary	00000001	00000000	00001000	15	00338	81	IHISORAR,R15			
82		DROP					15			R15			
83		USING	Ordinary	00000001	0000007C	00001000	11	0000E	84	COMMON,R11			
86		DROP					11			R11			
95		USING	Ordinary	00000001	00000040	00001000	15	002F8	100	IHISOREL,R15			
101		DROP					15			R15			
102		USING	Ordinary	00000001	0000007C	00001000	11	002C0	254	COMMON,R11			

X390 3.1.04 2012/08/17 13.22

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8      JOBNAME: T1BLD      STEPNAME: IHISOR      PROCSTEP: X390

Primary input: lines      1 to      312 of SYSD.ALGOLFRT.ASM(IHISOR)

SYSLIB library records read: 362

SYSUT1 work file size: 48115 bytes

SYSUT2 work file size: 17960 bytes

SYSUT3 work file size: 24960 bytes

SYSLIN file records written: 18

TXA000I Return code 0, elapsed time 0.33 seconds.

No uninitialized areas found

**IHISSC**

**LEVEL**

**V2.M01**

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHISSC)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00234
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17	13.22
				2 *					00002001
				3 *		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY			00003001
				4 *					00004001
				5 *		STATUS - LEVEL 2.1			00005001
				6 *					00006001
				7 *		FUNCTION/OPERATION -			00007001
				8 *		1. DIVIDE MAGNITUDE OF ARG BY PI/4 TO FIND OCTANT AND			00008001
				9 *		FRACTION			00009001
				10 *		2. IF COSINE ADD 2 TO OCTANT NUMBER			00010001
				11 *		IF SINE FOR NEGATIVE ARG, ADD 4 TO OCTANT NUMBER			00011001
				12 *		3. COMPUTE SINE OR COSINE OF FRACTION*PI/4 DEPENDING ON			00012001
				13 *		THE OCTANT			00013001
				14 *		4. IF OCTANT NUMBER IS FOR LOWER PLANE MAKE SIGN MINUS			00014001
				15 *					00015001
				16 *		ENTRY POINTS -			00016001
				17 *		IHISSCC - COSINE FUNCTION, SHORT			00017001
				18 *		IHISSCS - SINE FUNCTION, SHORT			00018001
				19 *		LA R1,PARMLIST			00019001
				20 *		BALR R14,R15			00020001
				21 *		DATA PASSED BY NAME			00021001
				22 *		THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE			00022001
				23 *					00023001
				24 *		INPUT - N/A			00024001
				25 *					00025001
				26 *		OUTPUT - N/A			00026001
				27 *					00027001
				28 *		EXTERNAL ROUTINES - N/A			00028001
				29 *					00029001
				30 *		EXIT - NORMAL - RETURN VIA R14, RESULT IN FPR0			00030001
				31 *					00031001
				32 *		EXIT - ERROR -			00032001
				33 *		IF ABS(ARG) < PI*2**18 GOTO ERROR ROUTINE VIA			00033001
				34 *		B FSAERR+26*4(R13)			00034001
				35 *					00035001
				36 *		TABLES/WORKAREAS - N/A			00036001
				37 *					00037001
000000		00000	0013C	38	IHISSCSN	CSECT			00038001
				39 *					00039001
				40		ENTRY IHISSCC			00040001
				41		ENTRY IHISSCS			00041001
				42 *					00042001
		00000		43	FPR0	EQU 0	RESULT REGISTER		00043001
		00002		44	FPR2	EQU 2	SCRATCH REGISTERS		00044001
		00004		45	FPR4	EQU 4			00045001
				46 *					00046001
				47	IHISSCC	SAVE (14,12),, 'IHISSCC LEVEL 2.1 &SYSDATE &SYSTIME'			00047001
000000	47F0 F026		00026	48+	IHISSCC	B 38(0,15)	BRANCH AROUND ID		01-SAVE
000004	21			49+		DC AL1(33)	LENGTH OF IDENTIFIER		01-SAVE
000005	C9C8C9E2E2C3C340			50+		DC CL32'IHISSCC LEVEL 2.1 08/17/12 13.2'	IDENTIFIER		01-SAVE
000025	F2			51+		DC CL1'2'	IDENTIFIER		01-SAVE
000026	90EC D00C		0000C	52+		STM 14,12,12(13)	SAVE REGISTERS		01-SAVE
				53 *					00048001
		R:F	00000	54		USING IHISSCC,R15			00049001
00002A	41A0 F07C		0007C	55		LA R10,COMMON			00050001
				56		DROP R15			00051001
		R:A	0007C	57		USING COMMON,R10			00052001
00002E	9202 A097		00113	58		MVI CRANK+3,X'02'	FOR COSINE, OCTANT CRANK IS 2		00053001
000032	5810 1000		00000	59		L R1,0(,R1)	COS(X) = SIN(PI/2+X)		00054001
000036	47F0 A000		0007C	60		B COMMON			00055001
				61 *					00056001
				62		DROP R10			00057001
				63 *					00058001
				64	IHISSCS	SAVE (14,12),, 'IHISSCS LEVEL 2.1 &SYSDATE &SYSTIME'			00059001
00003A	47F0 F026		00026	65+	IHISSCS	B 38(0,15)	BRANCH AROUND ID		01-SAVE
00003E	21			66+		DC AL1(33)	LENGTH OF IDENTIFIER		01-SAVE
00003F	C9C8C9E2E2C3E240			67+		DC CL32'IHISSCS LEVEL 2.1 08/17/12 13.2'	IDENTIFIER		01-SAVE
00005F	F2			68+		DC CL1'2'	IDENTIFIER		01-SAVE
000060	90EC D00C		0000C	69+		STM 14,12,12(13)	SAVE REGISTERS		01-SAVE
				70 *					00060001
		R:F	0003A	71		USING IHISSCS,R15			00061001
000064	41A0 F042		0007C	72		LA R10,COMMON			00062001
				73		DROP R15			00063001
		R:A	0007C	74		USING COMMON,R10			00064001
000068	9200 A097		00113	75		MVI CRANK+3,X'00'	OCTANT CRANK IS 0 IF +ARG		00065001
00006C	5810 1000		00000	76		L R1,0(,R1)	OCTANT CRANK IS 4 IF -ARG		00066001
000070	9180 1000		00000	77		TM 0(R1),X'80'	SIN(-X) = SIN(PI+X)		00067001
000074	4780 A000		0007C	78		BZ COMMON			00068001
000078	9204 A097		00113	79		MVI CRANK+3,X'04'			00069001
00007C	2B00			80	COMMON	SDR FPR0,FPR0	CLEAR FPR0 DOUBLE		00070001
00007E	2B22			81		SDR FPR2,FPR2	CLEAR FPR2 DOUBLE		00071001
000080	7800 1000		00000	82		LE FPR0,0(,R1)	OBTAIN ARGUMENT		00072001
000084	3000			83		LPER FPR0,FPR0	CONSIDER ARGUMENT TO BE POSITIVE		00073001
000086	7900 A098		00114	84		CE FPR0,MAX	/X/ >= PI*2**18 ?		00074001
00008A	47B0 A07C		000F8	85		BNL ERROR	YES, ERROR		00075001
00008E	6C00 A084		00100	86		MD FPR0,FOVPI	MULTIPLY BY 4/PI (LONG FORM)		00076001
000092	7900 A0B4		00130	87		CE FPR0,ONE	< 1 ?		00077001
000096	4740 A026		000A2	88		BL SMALL	YES, BRANCH		00078001
00009A	6E00 A08C		00108	89		AW FPR0,CH46	PROD CHAR OF 46, UNNORMALIZED		00079001
00009E	3820			90		LER FPR2,FPR0	INT PART OF PROD TO FPR2, UNNORM		00080001
0000A0	2B02			91		SDR FPR0,FPR2	FRACT PART OF PROD TO FPR0, NORM		00081001
0000A2	7E20 A094		00110	92	SMALL	AU FPR2,CRANK	ADD OCTANT CRANK TO FPR2, UNNORM		00082001
0000A6	7020 A0BC		00138	93		STE FPR2,OCTNT	SAVE IT		00083001
				94 *			LAST 3 BITS ARE MODIFIED OCTANT		00084001
0000AA	9101 A0BF		0013B	95		TM OCTNT+3,X'01'	IF ODD OCTANT, TAKE COMPLEMENT		00085001
0000AE	4780 A03C		000B8	96		BZ EVEN	OF FRACTION TO OBTAIN THE		00086001
0000B2	7B00 A0B4		00130	97		SE FPR0,ONE	MODIFIED FRACTION R		00087001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04    2012/08/17 13.22
0000B6	3000			98	LPER	FPR0,FPR0	00088001
0000B8	1B11			99	SR	R1,R1	00089001
0000BA	9103 A0BF	0013B		100	TM	OCTNT+3,X'03'	R1 = 0 FOR COSINE POLYNOMIAL
0000BE	4740 A04A		000C6	101	BM	LABAA	THIS IS FOR OCTANT 2,3,6, OR 7
0000C2	4110 0004		00004	102	LA	R1,4	IF OCTANT 1,4,5, OR 8, USE SINE
0000C6	3840			103	LABAA	LER FPR4,FPR0	POLYNOMIAL, R1 = 4
0000C8	3C00			104	MER	FPR0,FPR0	00093001
0000CA	3820			105	LER	FPR2,FPR0	COMPUTE SIN OR COS OF MODIFIED
0000CC	7C01 A09C		00118	106	ME	FPR0,C3(R1)	FRACTION USING PROPER CHEBYSHEV
0000D0	7A01 A0A4		00120	107	AE	FPR0,C2(R1)	INTERPOLATION POLYNOMIAL
0000D4	3C02			108	MER	FPR0,FPR2	00094001
0000D6	7A01 A0AC		00128	109	AE	FPR0,C1(R1)	00095001
0000DA	3C02			110	MER	FPR0,FPR2	00096001
0000DC	7A01 A0B4		00130	111	AE	FPR0,C0(R1)	00097001
0000E0	1211			112	LTR	R1,R1	00098001
0000E2	4780 A06C		000E8	113	BZ	LABBB	00099001
0000E6	3C04			114	MER	FPR0,FPR4	00100001
0000E8	9104 A0BF	0013B		115	LABBB	TM OCTNT+3,X'04'	IF SINE POLYNOMIAL, MULTIPLY R
0000EC	4780 A076		000F2	116	BZ	LABCC	00101001
0000F0	3100			117	LNER	FPR0,FPR0	IF MODIFIED OCTANT IS IN
				118	*		LOWER PLANE, SIGN IS NEGATIVE
				119	LABCC	RETURN (14,12)	00102001
0000F2				120	LABCC	DS 0H	RESTORE CALLERS REGS AND RETURN
0000F2	98EC D00C		0000C	121	LM	14,12,12(13)	01-RETUR
0000F6	07FE			122	BR	14	RESTORE THE REGISTERS
				123	*		RETURN
0000F8	47FD 0234		00234	124	ERROR	B FSAERR+26*4(13)	00110001
				125	*		00111001
		001CC		126	FSAERR	EQU X'1CC'	00112001
				127	*		00113001
0000FC	00000000			128	DC	0D'0'	00114001
000100				129	FOVPI	DC X'41145F306DC9C830'	00115001
000100	41145F306DC9C830			130	CH46	DC X'4600000000000000'	00116001
000108	4600000000000000			131	CRANK	DC X'46000000'	00117001
000110	46000000			132	MAX	DC X'45C90FDB'	00118001
000114	45C90FDB			133	*		00119001
000118	BE14E5E0			134	C3	DC X'BE14E5E0'	00120001
00011C	BD25B368			135	C2	DC X'BD25B368'	* -0.00031888 C3
000120	3F40EBD6			136	C1	DC X'3F40EBD6'	-0.00003595 S3
000124	3EA32F62			137	C0	DC X'3EA32F62'	0.01584991 C2
000128	C04EF4E5			138	C0	DC X'C04EF4E5'	0.00249001 S2
00012C	C014ABBC			139	C0	DC X'C014ABBC'	-0.30842425 C1 + FUDGE 1
000130	41100000			140	C0	DC X'41100000'	-0.08074543 S1
000134	40C90FDB			141	C0	DC X'40C90FDB'	1.0 C0
		00130		142	ONE	EQU C0	0.78539816 S0
				143	*		00128001
000138	00000000			144	OCTNT	DC F'0'	00129001
				145	*		00130001
				146	*	REGISTER EQUATES	00131001
				147	*		00132001
				148	IEZREGS		00133001
	00000			149	R0	EQU 0	00134001
	00001			150	R1	EQU 1	00135001
	00002			151	R2	EQU 2	01-IEZRE
	00003			152	R3	EQU 3	01-IEZRE
	00004			153	R4	EQU 4	01-IEZRE
	00005			154	R5	EQU 5	01-IEZRE
	00006			155	R6	EQU 6	01-IEZRE
	00007			156	R7	EQU 7	01-IEZRE
	00008			157	R8	EQU 8	01-IEZRE
	00009			158	R9	EQU 9	01-IEZRE
	0000A			159	R10	EQU 10	01-IEZRE
	0000B			160	R11	EQU 11	01-IEZRE
	0000C			161	R12	EQU 12	01-IEZRE
	0000D			162	R13	EQU 13	01-IEZRE
	0000E			163	R14	EQU 14	01-IEZRE
	0000F			164	R15	EQU 15	01-IEZRE
				165	*		00136001
				166	END		00137001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.22
CH46	8	00000108	00000001	X	X		130	89				
COMMON	2	0000007C	00000001	I			80	55	57U	60B	72	74U 78B
CRANK	4	00000110	00000001	X	X		131	58M	75M	79M	92	
C0	4	00000130	00000001	X	X		140	111	142			
C1	4	00000128	00000001	X	X		138	109				
C2	4	00000120	00000001	X	X		136	107				
C3	4	00000118	00000001	X	X		134	106				
ERROR	4	000000F8	00000001	I			124	85B				
EVEN	2	000000B8	00000001	I			99	96B				
FOVPI	8	00000100	00000001	X	X		129	86				
FPR0	1	00000000		U			43	80M	82M	83M	84	86M 87 89M 90 91M 97M 98M 103
								104M	105	106M	107M	108M 109M 110M 111M 114M 117M
FPR2	1	00000002		U			44	81M	90M	91	92M	93 105M 108 110
FPR4	1	00000004		U			45	103M	114			
FSAERR	1	000001CC		U			126	124B				
IHISSCC	4	00000000	00000001	I			48	40	54U			
IHISSCS	4	0000003A	00000001	I			65	41	71U			
LABAA	2	000000C6	00000001	I			103	101B				
LABBB	4	000000E8	00000001	I			115	113B				
LABCC	2	000000F2	00000001	H	H		120	116B				
MAX	4	00000114	00000001	X	X		132	84				
OCTNT	4	00000138	00000001	F	F		144	93M	95	100	115	
ONE	4	00000130	00000001	U			142	87	97			
R1	1	00000001		U			150	59M	76M	77	82	99M 102M 106 107 109 111 112M
R10	1	0000000A		U			159	55M	57U	62D	72M	74U
R15	1	0000000F		U			164	54U	56D	71U	73D	
SMALL	4	000000A2	00000001	I			92	88B				

X390 3.1.04 2012/08/17 13.22

Con	Source	Members
-----	--------	---------

X390	3.1.04	2012/08/17	13.22
------	--------	------------	-------

1	SYS1.MACLIB		
		IEZREGS	RETURN
			SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17	13.22
54		USING	Ordinary	00000001	00000000	00001000	15	0007C	55	IHISSCC,R15			
56		DROP					15			R15			
57		USING	Ordinary	00000001	0000007C	00001000	10	00097	60	COMMON,R10			
62		DROP					10			R10			
71		USING	Ordinary	00000001	0000003A	00001000	15	00042	72	IHISSCS,R15			
73		DROP					15			R15			
74		USING	Ordinary	00000001	0000007C	00001000	10	000BF	116	COMMON,R10			

X390 3.1.04 2012/08/17 13.22

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHISSC    PROCSTEP: X390

Primary input: lines    1 to    137 of SYSD.ALGOLFRT.ASM(IHISSC)

SYSLIB library records read: 161

SYSUT1 work file size: 16439 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 10960 bytes

SYSLIN file records written: 8

TXA000I Return code 0, elapsed time 0.16 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHISCSN 00013C 4

**IHISSQ**

**LEVEL**

**V2.M01**



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Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSUpPess	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SysterM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHISSQ)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00238
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	WRITE X =	M*16** (2P-Q), M MANTISSA, Q=0 OR 1	00008001
				9 *	THEN SQRT(X) =	SQRT(M*16**-Q)*16**P	00009001
				10 *			00010001
				11 *	ENTRY POINT -		00011001
				12 *	IHISSQ -	SQRT FUNCTION, SHORT	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *	DATA	PASSED BY NAME	00015001
				16 *	THE MODULE IS ENTERED FROM THE GENERATED OBJECT MODULE		00016001
				17 *			00017001
				18 *	INPUT -	N/A	00018001
				19 *			00019001
				20 *	OUTPUT -	N/A	00020001
				21 *			00021001
				22 *	EXTERNAL ROUTINES -	N/A	00022001
				23 *			00023001
				24 *	EXIT -	NORMAL -	00024001
				25 *	RETURN VIA	R14, RESULT IN FPR0	00025001
				26 *			00026001
				27 *	EXIT -	ERROR -	00027001
				28 *	IF ARGUMENT NEGATIVE GOTO ERROR ROUTINE VIA		00028001
				29 *	B	FSAERR+23*4(R13)	00029001
				30 *			00030001
				31 *	TABLES/WORKAREAS -	N/A	00031001
				32 *			00032001
000000		00000	000C4	33	IHISSQRT	CSECT	00033001
				34 *			00034001
				35	ENTRY	IHISSQ	00035001
				36 *			00036001
		00000		37	FPR0	EQU 0 RESULT REGISTER	00037001
		00002		38	FPR2	EQU 2 SCRATCH REGISTERS	00038001
		00004		39	FPR4	EQU 4	00039001
				40 *			00040001
				41	IHISSQ	SAVE (14,12),, 'IHISSQRT LEVEL 2.1 &SYSDATE &SYSTIME'	00041001
000000	47F0 F026		00026	42+	IHISSQ	B 38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			43+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9E2E2D8D9E3			44+	DC	CL32' IHISSQRT LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F2			45+	DC	CL1'2' IDENTIFIER	01-SAVE
000026	90EC D00C		0000C	46+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				47 *			00042001
		R:F 00000		48	USING	IHISSQRT,R15	00043001
00002A	5810 1000		00000	49	L	R1,0(,R1)	00044001
00002E	5800 1000		00000	50	L	R0,0(,R1) OBTAIN ARGUMENT	00045001
000032	7840 1000		00000	51	LE	FPR4,0(,R1)	00046001
000036	1200			52	LTR	R0,R0	00047001
000038	4780 F08A		0008A	53	BZ	ZRANS	00048001
00003C	4740 F090		00090	54	BM	ERROR	00049001
000040	5E00 F0A4		000A4	55	AL	R0,BIAS	00050001
000044	8C00 0019		00019	56	SRDL	R0,25	00051001
000048	8900 0018		00018	57	SLL	R0,24	00052001
00004C	18E0			58	LR	R14,R0	00053001
00004E	1211			59	LTR	R1,R1	00054001
000050	4740 F058		00058	60	BM	LABAA	00055001
000054	5AE0 F0A8		000A8	61	A	R14,FOUR	00056001
000058	8810 0003		00003	62	LABAA	SRL R1,3	00057001
00005C	5A1E F0BC		000BC	63	A	R1,C(R14)	00058001
				64 *			00059001
000060	580E F0B4		000B4	65	L	R0,B(R14)	00060001
000064	1D01			66	DR	R0,R1	00061001
000066	5A1E F0AC		000AC	67	A	R1,A(R14)	00062001
00006A	1A1E			68	AR	R1,R14	00063001
00006C	5010 F0A0		000A0	69	ST	R1,BUFF	00064001
000070	3804			70	LER	FPR0,FPR4	00065001
000072	7D00 F0A0		000A0	71	DE	FPR0,BUFF	00066001
000076	7A00 F0A0		000A0	72	AE	FPR0,BUFF	00067001
00007A	3400			73	HER	FPR0,FPR0	00068001
00007C	3D40			74	DER	FPR4,FPR0	00069001
00007E	3B40			75	SER	FPR4,FPR0	00070001
000080	3444			76	HER	FPR4,FPR4	00071001
000082	3A04			77	AER	FPR0,FPR4	00072001
				78 *			00073001
				79	FIN	RETURN (14,12)	00074001
000084				80+	FIN	DS 0H	01-RETUR
000084	98EC D00C		0000C	81+	LM	14,12,12(13)	01-RETUR
000088	07FE			82+	BR	14	01-RETUR
				83 *			00075001
00008A	3B00			84	ZRANS	SER FPR0,FPR0	00076001
00008C	47F0 F084		00084	85	B	FIN	00077001
				86 *			00078001
000090	8900 0001		00001	87	ERROR	SLL R0,1	00079001
000094	1200			88	LTR	R0,R0	00080001
000096	4780 F08A		0008A	89	BZ	ZRANS	00081001
00009A	47FD 0228		00228	90	B	FSAERR+23*4(R13)	00082001
				91 *			00083001
		001CC		92	FSAERR	EQU X'1CC'	00084001
				93 *			00085001
00009E	0000						
0000A0	00000000			94	BUFF	DC F'0'	00086001
0000A4	41000000			95	BIAS	DC X'41000000'	00087001
0000A8	00000004			96	FOUR	DC F'4'	00088001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04	2012/08/17	13.22
0000AC	01CE9FE0			97	A	DC X'01CE9FE0'	1.8071270	A0 (B7)	00089001
0000B0	006DC57C			98		DC X'006DC57C'	0.4287950	A1 (B7) MINUS 4(B31)	00090001
0000B4	FFE6C37D			99	B	DC X'FFE6C37D'	-1.5772732	B0 (B11)	00091001
0000B8	FFFA82EB			100		DC X'FFFA82EB'	-0.0214398	B1 (B7)	00092001
0000BC	FF44546F			101	C	DC X'FF44546F'	0.95418214	C0 (B3) MINUS 1(B3)	00093001
0000C0	0E0A7419			102		DC X'0E0A7419'	0.0548470	C1 (B-1)	00094001
				103	*				00095001
				104	*	REGISTER EQUATES			00096001
				105	*				00097001
				106		IEZREGS			00098001
00000				107+R0		EQU 0			01-IEZRE
00001				108+R1		EQU 1			01-IEZRE
00002				109+R2		EQU 2			01-IEZRE
00003				110+R3		EQU 3			01-IEZRE
00004				111+R4		EQU 4			01-IEZRE
00005				112+R5		EQU 5			01-IEZRE
00006				113+R6		EQU 6			01-IEZRE
00007				114+R7		EQU 7			01-IEZRE
00008				115+R8		EQU 8			01-IEZRE
00009				116+R9		EQU 9			01-IEZRE
0000A				117+R10		EQU 10			01-IEZRE
0000B				118+R11		EQU 11			01-IEZRE
0000C				119+R12		EQU 12			01-IEZRE
0000D				120+R13		EQU 13			01-IEZRE
0000E				121+R14		EQU 14			01-IEZRE
0000F				122+R15		EQU 15			01-IEZRE
				123	*				00099001
				124		END			00100001

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.22
A	4	000000AC	00000001	X	X		97	67				
B	4	000000B4	00000001	X	X		99	65				
BIAS	4	000000A4	00000001	X	X		95	55				
BUFF	4	000000A0	00000001	F	F		94	69M 71 72				
C	4	000000BC	00000001	X	X		101	63				
ERROR	4	00000090	00000001	I			87	54B				
FIN	2	00000084	00000001	H	H		80	85B				
FOUR	4	000000A8	00000001	F	F		96	61				
FPR0	1	00000000		U			37	70M 71M 72M 73M 74 75 77M 84M				
FPR4	1	00000004		U			39	51M 70 74M 75M 76M 77				
FSAERR	1	000001CC		U			92	90B				
IHISSQ	4	00000000	00000001	I			42	35				
IHISSQRT	1	00000000	00000001	J			33	48U				
LABAA	4	00000058	00000001	I			62	60B				
R0	1	00000000		U			107	50M 52M 55M 56M 57M 58 65M 66M 87M 88M				
R1	1	00000001		U			108	49M 50 51 59M 62M 63M 66 67M 68M 69				
R13	1	0000000D		U			120	90				
R14	1	0000000E		U			121	58M 61M 63 65 67 68				
R15	1	0000000F		U			122	48U				
ZTRANS	2	0000008A	00000001	I			84	53B 89B				

[illegible]

Con	Source	Members
-----	--------	---------

X390 3.1.04 2012/08/17 13.22

1	SYS1.MACLIB		
		IEZREGS	RETURN SAVE
2	SYSD.TOOLS.MACLIB		
3	SYSD.ALGOLFRT.ASM		
4	SYSD.ALGOLFRT.MACLIB		
5	SYS1.AMODGEN		

QRT				USING Map							PAGE			7
Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390	3.1.04	2012/08/17	13.22
48		USING	Ordinary	00000001	00000000	00001000	15	000BC	89	IHISSQRT,R15				

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No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8 JOBNAME: T1BLD STEPNAME: IHISSQ PROCSTEP: X390

Primary input: lines 1 to 100 of SYSD.ALGOLFRT.ASM(IHISSQ)

SYSLIB library records read: 161

SYSUT1 work file size: 11676 bytes

SYSUT2 work file size: 14137 bytes

SYSUT3 work file size: 8000 bytes

SYSLIN file records written: 6

TXA000I Return code 0, elapsed time 0.14 seconds.



INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHSSQRT 0000C4 4

# IHISYS

## LEVEL

### V2.M01

TLC002I Tachyon Legacy Assembler is licensed to Thomas Armstrong  
 TLC011I License expires on 2012/10/17 at 01:00

Command Line Parameters- -PARM("LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT")  
 -S1//DDN:SYSUT1  
 -S2//DDN:SYSUT2  
 -S3//DDN:SYSUT3  
 -SN//DDN:SYSLIN  
 -SL//DDN:SYSLIB  
 -ST//DDN:SYSPRINT  
 -SH//DDN:SYSPUNCH  
 -SA//DDN:SYSADATA  
 -SM1

Options for this Assembly	Source
-----	-----
AControl(Align,NoLibMac)	(default)
NoADData	(default)
AdataLevel(5)	(default)
NoCompAT	(default)
DXref	(default)
NoEsd	Command Line
Flag(0,Align,ConT,EXlitw,NoImpLen,PUSH,ReCord,NoSubstr,Using0,NoPage0,NoBrpage0,NoREnt,UsingDup,UsingZero,UsingMult,Ra	
2,Hlasm,NoTRunc,NoIndex)	(default)
NoFOld	(default)
IDR('X390ASM 3104')	(default)
NoINFO	Command Line
Language(EN)	(default)
LineCount(101)	Command Line
List(121)	(default)
MsgLevel(0,0)	Command Line
MXref(Source)	(default)
Object(0mf)	Command Line
OPtable(Uni,NoList)	(default)
PARM(LOAD,ASA,SZ(3M),LC(101),NE,NOINFO,ML(0,0),XREF(SHORT),NRL,NT)	
	Command Line
NoPControl	(default)
PRIntctl(Asa)	//DDN:SYSPRINT
ProcesS(NoBatch,NoDbcs,NoPestop,Thread,NoWarn0)	
	(default)
NoProFile	(default)
NoRLd	Command Line
RXref(NoCr,Gr,NoFr)	(default)
Size(3145728)	Command Line
NoSuppress	(default)
Sysadata(//DDN:SYSADATA)	Command Line
SysLib(//DDN:SYSLIB)	Command Line
Syslin(//DDN:SYSLIN)	Command Line
NoSysParm	(default)
Sysprint(//DDN:SYSPRINT)	Command Line
Syspunch(//DDN:SYSPUNCH)	Command Line
SystemId('MVS 3.8')	(default)
SystemM(1)	Command Line
Sysut1(//DDN:SYSUT1)	Command Line
Sysut2(//DDN:SYSUT2)	Command Line
Sysut3(//DDN:SYSUT3)	Command Line
NoTerm	Command Line
NoTEst	(default)
TypeCheck(Magnitude,Register)	(default)
NoUsingLimit	(default)
UsingMap	(default)
Xref(Short)	Command Line

DDNAMEs	File/Data Set Names
-----	-----
SYSIN	SYSD.ALGOLFRT.ASM(IHISYS)
SYSLIB	SYS1.MACLIB
	SYSD.TOOLS.MACLIB
	SYSD.ALGOLFRT.ASM
	SYSD.ALGOLFRT.MACLIB
	SYS1.AMODGEN
SYSLIN	SYS12230.T132141.RA000.T1BLD.OBJECT
SYSPRINT	JES2.JOB09284.S00242
SYSUT1	SYS12230.T132141.RA000.T1BLD.SYSUT1
SYSUT2	SYS12230.T132141.RA000.T1BLD.SYSUT2
SYSUT3	SYS12230.T132141.RA000.T1BLD.SYSUT3

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				2 *			00002001
				3 *	COMPONENT ID -	360S-LM-532 ALGOL F LIBRARY	00003001
				4 *			00004001
				5 *	STATUS -	LEVEL 2.1	00005001
				6 *			00006001
				7 *	FUNCTION/OPERATION -		00007001
				8 *	CONSISTS OF 15 ROUTINES WITH DIFFERENT ACTIONS ON DATASET		00008001
				9 *	WHICH DEPENDING ON SECOND PARAMETER IN SYSACT		00009001
				10 *			00010001
				11 *	ENTRY POINTS -		00011001
				12 *	IHSYSCT -	FROM GENERATED OBJECT MODULE	00012001
				13 *	LA	R1,PARMLIST	00013001
				14 *	BALR	R14,R15	00014001
				15 *	DATA PASSED BY NAME		00015001
				16 *			00016001
				17 *	INPUT - SYSACT4 READS TWO RECORDS AFTER REPOSITIONING		00017001
				18 *			00018001
				19 *	OUTPUT -	N/A	00019001
				20 *			00020001
				21 *	EXTERNAL ROUTINES -		00021001
				22 *	IHIOR -	EVALUATE DATASET NUMBER	00022001
				23 *	-	OPEN DATASET	00023001
				24 *	-	CHANGE TO NEXT RECORD	00024001
				25 *	-	CLOSE DATASET	00025001
				26 *	-	CONVERT REAL TO INTEGER	00026001
				27 *			00027001
				28 *	EXITS -	NORMAL - RELOAD REGISTERS RETURN VIA R14	00028001
				29 *	-	ERROR -	00029001
				30 *	DATASET NUMBER OUT OF RANGE	NO 0	00030001
				31 *	INCOMPATIBLE ACTIONS ON SAME DATASET	NO 2	00031001
				32 *	INPUT REQUEST BEYOND END OF DATASET	NO 5	00032001
				33 *	UNDEFINED FUNCTION NUMBER	NO 9	00033001
				34 *	DATASET CLOSED	NO 10	00034001
				35 *	DATASET OPEN	NO 11	00035001
				36 *	QUANTITY IN SYSACT PROCEDURE MUST BE A VARIABLE	NO 12	00036001
				37 *	QUANTITY IN SYSACT PROCEDURE OUT OF RANGE	NO 13	00037001
				38 *	BACKWARD REPOSITIONING NOT DEFINED	NO 14	00038001
				39 *	BRANCH TO IHIFSA		00039001
				40 *	L	R13,IHIFSA	00040001
				41 *	B	FSAERR+XX*4(R13) XX ERROR NO	00041001
				42 *			00042001
				43 *	TABLES/WORK AREAS -	N/A	00043001
				44 *			00044001
				45 *	ATTRIBUTES -	SERIALY REUSABLE	00045001
				46 *			00046001
				47 *	NOTES -		00047001
				48 *	THE OPERATION OF THIS MODULE DOES NOT DEPEND UPON A		00048001
				49 *	SPECIAL INTERNAL REPRESENTATION OF THE EXTERNAL		00049001
				50 *	CHARACTER SET		00050001
				51 *			00051001
				52 *	REGISTERS		00052001
				53 *	R1 ->	PARAMETER LIST	00053001
				54 *	R5 ->	DSTABLE ENTRY FOR DATASET	00054001
				55 *	R6 =	DATASET NUMBER	00055001
				56 *	R8 ->	DCB AND DECB	00056001
				57 *	R12 ->	FSA	00057001
				58 *	R13 ->	SAVE AREA IN FSA	00058001
				59 *	R14 ->	RETURN	00059001
				60 *	R15 ->	ROUTINE SYSACT	00060001
				61 *			00061001
000000		00000	0077C	62	IHSYSCT	CSECT	00062001
				63 *			00063001
				64 *	FLOATING POINT REGISTER		00064001
				65 *			00065001
		00000		66	FR0	EQU 0	00066001
				67 *			00067001
				68 *	DISPLACEMENTS IN ADRLST IN IHIFSA		00068001
				69 *			00069001
				70 *		DISPLACEMENT FOR -	00070001
		00000		71	CI	EQU 0 IHIIORCI	00071001
		00004		72	CL	EQU 4 IHIIORCL	00072001
		00008		73	EV	EQU 8 IHIIOREV	00073001
		0000C		74	NX	EQU 12 IHIIORNX	00074001
		00010		75	OP	EQU 16 IHIIOROP	00075001
		00014		76	OQ	EQU 20 IHIIOROQ	00076001
				77 *			00077001
				78	SAVE	(14,12),, 'IHSYSCT LEVEL 2.1 &SYSDATE &SYSTIME'	00078001
000000	47F0	F026	00026	79+	B	38(0,15) BRANCH AROUND ID	01-SAVE
000004	21			80+	DC	AL1(33) LENGTH OF IDENTIFIER	01-SAVE
000005	C9C8C9E2E8E2C3E3			81+	DC	CL32 'IHSYSCT LEVEL 2.1 08/17/12 13.2' IDENTIFIER	01-SAVE
000025	F2			82+	DC	CL1 '2' IDENTIFIER	01-SAVE
000026	90EC	D00C	0000C	83+	STM	14,12,12(13) SAVE REGISTERS	01-SAVE
				84 *			00079001
00002A	187F			85	LR	R7,R15 LOAD BASE REGISTER	00080001
		R:7	00000	86	USING	IHSYSCT,R7	00081001
00002C	18CD			87	LR	R12,R13 ADDR OF FIXED STORAGE AREA	00082001
				88 *		TO R12	00083001
				89	ST	R13,SAVEAR+4	00084001
000032	41D0	76EC	006EC	90	LA	R13,SAVEAR	00085001
000036	58F0	C11C	0011C	91	L	R15,IORLST(,R12) R15 -> COMMON I/O ROUTINES	00086001
00003A	58F0	F008	00008	92	L	R15,EV(,R15) EVALUATE DATASET NUMBER	00087001
00003E	05EF			93	BALR	R14,R15	00088001
				94 *			00089001
				95 *	ON RETURN -		00090001
				96 *	R6 =	DATASET NUMBER	00091001
				97 *	R5 ->	DSTABLE ENTRY	00092001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				98 *			00093001
		R:5 00000		99	USING	DSTABLE,R5	00094001
				100 *			00095001
				101 *	EVALUATE SECOND	PARAMETER FUNCTION	00096001
				102 *			00097001
000040	BF2F 1004		00004	103	ICM	R2,B'1111',4(R1)	00098001
000044	47B0 706A		0006A	104	BNM	SYS1	00099001
000048	9120 C0C2	000C2		105	TM	OPTSW(R12),X'20'	00100001
00004C	4710 7058		00058	106	BO	SYS11	00101001
000050	6800 2000		00000	107	LD	FR0,0(R2)	00102001
000054	47F0 705C		0005C	108	B	SYS11A	00103001
				109 *			00104001
000058	7800 2000		00000	110	SYS11	LE FR0,0(R2)	00105001
00005C	58F0 C11C		0011C	111	SYS11A	L R15,IORLST(R12)	00106001
000060	58F0 F000		00000	112		L R15,CI(R15)	00107001
000064	05EF			113	BALR	R14,R15	00108001
000066	47F0 706E		0006E	114	B	SYS1A	00109001
				115 *			00110001
00006A	5800 2000		00000	116	SYS1	L R0,0(R2)	00111001
00006E	1220			117	SYS1A	LTR R2,R0	00112001
000070	47D0 70B0		000B0	118	BNP	SYSERR9	00113001
000074	5920 7730		00730	119	C	R2,=F'15'	00114001
000078	4720 70B0		000B0	120	BH	SYSERR9	00115001
00007C	8820 0002		00002	121	SLA	R2,2	00116001
000080	5832 773C		0073C	122	L	R3,SYSVECT(R2)	00117001
				123 *			00118001
				124 *	EVALUATE THIRD	PARAMETER QUANTITY	00119001
				125 *			00120001
000084	1B99			126	SR	R9,R9	00121001
000086	5820 1008		00008	127	L	R2,8(R1)	00122001
00008A	8920 0001		00001	128	SLL	R2,1	00123001
00008E	1222			129	LTR	R2,R2	00124001
000090	4740 7098		00098	130	BM	SYS11B	00125001
000094	4190 9001		00001	131	LA	R9,1(R9)	00126001
000098	8820 0001		00001	132	SYS11B	SRL R2,1	00127001
00009C	5420 7734		00734	133	N	R2,=X'00FFFFFF'	00128001
0000A0	5840 2000		00000	134	L	R4,0(R2)	00129001
				135 *			00130001
				136 *	R3 ->	REQUESTED SYSSACT	00131001
				137 *	R2 ->	QUANTITY	00132001
				138 *	R4 =	QUANTITY	00133001
				139 *	R9 EQUAL ONE IF	QUANTITY IS A VARIABLE ELSE ZERO	00134001
				140 *			00135001
0000A4	07F3			141	BR	R3	00136001
				142 *		BRANCH TO SYSACT ROUTINE	00137001
0000A6	58D0 76EC		006EC	143	RETSYS	L R13,SAVEAR+4	00138001
				144 *			00139001
0000AA	98EC D00C		0000C	145		RETURN (14,12)	00140001
0000AE	07FE			146+	LM	14,12,12(13)	01-RETUR
				147+	BR	14	01-RETUR
				148 *		RESTORE CALLERS REGS AND RETURN	00141001
0000B0	18DC			149	SYSERR9	LR R13,R12	00142001
0000B2	47FC 01F0		001F0	150	B	FSAERR+9*4(R12)	00143001
				151 *			00144001
				152 *	BRANCH TO NEXTREC	IN IHIIOR	00145001
				153 *			00146001
0000B6	58FC 011C		0011C	154	NXREC	L R15,IORLST(R12)	00147001
0000BA	58FF 000C		0000C	155	L	R15,NX(R15)	00148001
0000BE	07FF			156	BR	R15	00149001
				157 *			00150001
				158 *			00151001
				159 *	ROUTINE SYSACT1		00152001
				160 *			00153001
				161 *			00154001
				162 *	QUANTITY =	R	00155001
				163 *			00156001
0000C0	9180 501A	0001A		164	SYSACT1	TM DSF,DS0	00157001
0000C4	4710 70CE		000CE	165	BO	SYS1T1	00158001
0000C8	18DC			166	SYSCLOSD	LR R13,R12	00159001
0000CA	47FC 01F4		001F4	167	B	FSAERR+10*4(R12)	00160001
				168 *			00161001
0000CE	1299			169	SYS1T1	LTR R9,R9	00162001
0000D0	4720 70DA		000DA	170	BP	SYS1T2	00163001
0000D4	18DC			171	SYSCONST	LR R13,R12	00164001
0000D6	47FC 01FC		001FC	172	B	FSAERR+12*4(R12)	00165001
				173 *		QUANTITY SHOULD BE A VARIABLE	00166001
0000DA	5840 5004		00004	174	SYS1T2	L R4,R	00167001
0000DE	5840 5008		00008	175	S	R4,RE	00168001
0000E2	4A40 5016		00016	176	AH	R4,P	00169001
0000E6	4140 4001		00001	177	LA	R4,1(R4)	00170001
0000EA	5040 2000		00000	178	ST	R4,0(R2)	00171001
0000EE	47F0 70A6		000A6	179	B	RETSYS	00172001
				180 *			00173001
				181 *			00174001
				182 *	ROUTINE SYSACT2		00175001
				183 *			00176001
				184 *			00177001
				185 *	R =	QUANTITY	00178001
				186 *			00179001
0000F2	1244			187	SYSACT2	LTR R4,R4	00180001
0000F4	4720 70FC		000FC	188	BP	SYSACT2A	00181001
0000F8	47F0 7104		00104	189	B	SYS2T1	00182001
				190 *			00183001
0000FC	4940 5016		00016	191	SYSACT2A	CH R4,P	00184001
000100	47D0 710A		0010A	192	BNH	SYS2T1+6	00185001
000104	18DC			193	SYS2T1	LR R13,R12	00186001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
000106	47FC 0200		00200	194	B	FSAERR+13*4(R12)	QUANTITY OUT OF RANGE ERROR 13 00187001
				195	*		00188001
00010A	9180 501A	0001A		196	TM	DSF,DS0	00189001
00010E	4780 70C8		000C8	197	BZ	SYSCL0SD	00190001
000112	1834			198	LR	R3, R4	00191001
000114	5A30 5008		00008	199	A	R3, RE	00192001
000118	4B30 5016		00016	200	SH	R3, P	00193001
00011C	0630			201	BCTR	R3, 0	00194001
00011E	5B30 5004		00004	202	S	R3, R	00195001
000122	4720 71A6		001A6	203	BP	SYS2T2	00196001
				204	*		00197001
				205	*	NEW CHARACTER POINTER LESS OR EQUAL R	00198001
				206	*		00199001
000126	9120 501A	0001A		207	TM	DSF,DS2	00200001
00012A	4710 716C		0016C	208	BO	SYS2T3	00201001
00012E	9120 501B	0001B		209	TM	DSF+1,DS10	DATASET OPENED BY SYSACT 12 ? 00202001
000132	4710 7162		00162	210	BO	SYS2T30	00203001
000136	9101 501A	0001A		211	TM	DSF,DS7	EOD BEEN REACHED ? 00204001
00013A	4710 7402		00402	212	BO	SYS2T1A	00205001
00013E	45E0 70B6		000B6	213	BAL	R14,NXREC	LAST I/O PROCEDURE WAS INPUT 00206001
000142	9101 501A	0001A		214	TM	DSF,DS7	END OF DATA REACHED ? 00207001
000146	4780 7150		00150	215	BZ	SYS2T1A	00208001
00014A	1834			216	LR	R3, R4	QUANTITY = 1 ? 00209001
00014C	4630 7402		00402	217	BCT	R3, SYSEOD	NO, INPUT REQUEST BEYOND EOD 00210001
000150	5A40 5008		00008	218	SYS2T1A	R4, RE	00211001
000154	4B40 5016		00016	219	SH	R4, P	ASSIGN A NEW VALUE TO CHARACTER 00212001
000158	0640			220	BCTR	R4, 0	00213001
00015A	5040 5004		00004	221	ST	R4, R	00214001
00015E	47F0 70A6		000A6	222	B	RETSYS	00215001
				223	*		00216001
000162	1266			224	SYS2T30	LTR R6, R6	DATASET NUMBER = 0 ? 00217001
000164	4780 75CA		005CA	225	BZ	SYSINCOM	YES, BRANCH 00218001
000168	9620 501A	0001A		226	OI	DSF,DS2	00219001
				227	*		00220001
				228	*	LAST I/O PROCEDURE WAS OUTPUT	00221001
				229	*		00222001
00016C	5830 5008		00008	230	SYS2T3	L R3, RE	00223001
000170	5B30 5004		00004	231	S	R3, R	00224001
000174	4780 717E		0017E	232	BZ	SYS2T31	00225001
000178	41F0 76D4		006D4	233	LA	R15,SYBLANK	FILL RECORD WITH BLANKS 00226001
00017C	05EF			234	BALR	R14, R15	00227001
00017E	45E0 70B6		000B6	235	SYS2T31	BAL R14,NXREC	00228001
				236	*		00229001
000182	1834			237	LR	R3, R4	00230001
000184	0630			238	BCTR	R3, 0	00231001
000186	1233			239	LTR	R3, R3	00232001
000188	4780 7196		00196	240	BZ	SYS2T32	00233001
00018C	9610 501A	0001A		241	OI	DSF,DS3	00234001
000190	41F0 76D4		006D4	242	LA	R15,SYBLANK	FILL RECORD WITH BLANKS 00235001
000194	05EF			243	BALR	R14, R15	00236001
000196	58B0 5004		00004	244	SYS2T32	L R11, R	00237001
00019A	1A4B			245	AR	R4, R11	00238001
00019C	0640			246	BCTR	R4, 0	CHARACTER POINTER 00239001
00019E	5040 5004		00004	247	ST	R4, R	QUANTITY+R-1 ASSIGN TO R 00240001
0001A2	47F0 70A6		000A6	248	B	RETSYS	00241001
				249	*		00242001
				250	*	NEW CHARACTER POINTER GREATER THAN R	00243001
				251	*		00244001
0001A6	9120 501A	0001A		252	SYS2T2	TM DSF,DS2	00245001
0001AA	4710 71C0		001C0	253	BO	SYS2T20	00246001
0001AE	9120 501B	0001B		254	TM	DSF+1,DS10	DS BEEN OPENED BY SYSACT 12 ? 00247001
0001B2	4780 71DA		001DA	255	BZ	SYS2T5	00248001
0001B6	1266			256	LTR	R6, R6	DATASET NUMBER = 0 ? 00249001
0001B8	4780 75CA		005CA	257	BZ	SYSINCOM	YES, BRANCH 00250001
0001BC	9620 501A	0001A		258	OI	DSF,DS2	00251001
0001C0	1834			259	SYS2T20	LR R3, R4	LAST I/O WAS OUTPUT 00252001
0001C2	5A30 5008		00008	260	A	R3, RE	00253001
0001C6	5B30 5004		00004	261	S	R3, R	00254001
0001CA	9610 501A	0001A		262	OI	DSF,DS3	00255001
0001CE	4B30 5016		00016	263	SH	R3, P	00256001
0001D2	0630			264	BCTR	R3, 0	00257001
0001D4	41F0 76D4		006D4	265	LA	R15,SYBLANK	FILL RECORD WITH BLANKS 00258001
0001D8	05EF			266	BALR	R14, R15	00259001
				267	*		00260001
0001DA	9101 501A	0001A		268	SYS2T5	TM DSF,DS7	EOD BEEN REACHED ? 00261001
0001DE	4710 7402		00402	269	BO	SYS2T20	00262001
0001E2	5A40 5008		00008	270	SYS2T4	A R4, RE	00263001
0001E6	4B40 5016		00016	271	SH	R4, P	ASSIGN NEW VALUE TO CHAR POINTER 00264001
0001EA	0640			272	BCTR	R4, 0	00265001
0001EC	5040 5004		00004	273	ST	R4, R	00266001
0001F0	47F0 70A6		000A6	274	B	RETSYS	00267001
				275	*		00268001
				276	*		00269001
				277	*	ROUTINE SYSACT3	00270001
				278	*		00271001
				279	*		00272001
				280	*	QUANTITY = 5	00273001
				281	*		00274001
0001F4	9180 501A	0001A		282	SYSACT3	TM DSF,DS0	00275001
0001F8	4780 70C8		000C8	283	BZ	SYSCL0SD	DATASET CLOSED ERROR10 00276001
0001FC	1299			284	LTR	R9, R9	00277001
0001FE	4780 70D4		000D4	285	BZ	SYSCONST	QUANTITY NOT A VARIABLE ERR 12 00278001
000202	4840 5014		00014	286	LH	R4, S	00279001
000206	5040 2000		00000	287	ST	R4, 0(,R2)	00280001
00020A	47F0 70A6		000A6	288	B	RETSYS	00281001
				289	*		00282001

Loc	Object Code	Addr1	Addr2	Stmt	Source Statement	X390 3.1.04 2012/08/17 13.22
				290 *	-----	00283001
				291 *	ROUTINE SYSACT4	00284001
				292 *	-----	00285001
				293 *		00286001
				294 *	UNDEFINED IF DATASET SPLIT INTO SECTION BY SYSACT8 OR	00287001
				295 *	IF THE DATASET IS 0 OR 1	00288001
				296 *		00289001
				297 *	ACTION AFTER INPUT - S = QUANTITY	00290001
				298 *	R = 1	00291001
				299 *	ACTION AFTER OUTPUT - S = QUANTITY	00292001
				300 *	R = 1	00293001
				301 *	IF FORWARD SKIPPING FILL SKIPPED RECORDS WITH BLANKS	00294001
				302 *		00295001
00020E	5880 5000		00000	303 SYSACT4	L R8,ADCB	00296001
000212	1244			304	LTR R4,R4 TEST QUANTITY	00297001
000214	4720 721E		0021E	305	BP SYS4T01	00298001
000218	18DC			306	LR R13,R12	00299001
00021A	47FC 0200		00200	307	B FSAERR+13*4(R12) QUANTITY OUT OF RANGE	00300001
				308 *		00301001
00021E	9140 501B		0001B	309 SYS4T01	TM DSF+1,DS9 DATASET SECTIONED ?	00302001
000222	4710 75CA		005CA	310	BO SYSINCOM	00303001
000226	1226			311	LTR R2,R6 DATASET NO = 1 OR 0 ?	00304001
000228	4780 75CA		005CA	312	BZ SYSINCOM	00305001
00022C	4620 7234		00234	313	BCT R2,SYS4T0	00306001
000230	47F0 75CA		005CA	314	B SYSINCOM	00307001
				315 *		00308001
000234	9180 501A		0001A	316 SYS4T0	TM DSF,DS0 DATASET OPEN ?	00309001
000238	4780 70C8		000C8	317	BZ SYSCLOS0	00310001
00023C	4940 5014		00014	318	CH R4,S QUANTITY > S ?	00311001
000240	4740 72AE		002AE	319	BL SYS4T2 NO, LESS	00312001
000244	4780 73BE		003BE	320	BE SYS4T3 NO, EQUAL	00313001
000248	9120 501A		0001A	321 SYS4T1	TM DSF,DS2 LAST I/O OUTPUT ?	00314001
00024C	4710 728C		0028C	322	BO SYS4T15 YES, BRANCH TO SYS4T15	00315001
				323 *		00316001
				324 *	LAST I/O INPUT AND QUANTITY > S	00317001
				325 *		00318001
000250	9120 501B		0001B	326	TM DSF+1,DS10 DS BEEN OPENED BY SYSACT 12 ?	00319001
000254	4780 7260		00260	327	BZ SYS4T12	00320001
000258	9620 501A		0001A	328	OI DSF,DS2 DATASET OPEN FOR OUTPUT	00321001
00025C	47F0 728C		0028C	329	B SYS4T15	00322001
				330 *		00323001
000260	41F0 7408		00408	331 SYS4T12	LA R15,SYSNOT QUANTITY IN NOTTAB ?	00324001
000264	05EF			332	BALR R14,R15	00325001
000266	9101 501A		0001A	333	TM DSF,DS7 EOD BEEN REACHED ?	00326001
00026A	4710 7402		00402	334	BO SYSEOD	00327001
00026E	1233			335	LTR R3,R3	00328001
000270	4720 72CA		002CA	336	BP SYS4T21 YES, BRANCH TO SYS4T21	00329001
000274	9101 501A		0001A	337 SYS4T13	TM DSF,DS7 END OF DATA BEEM REACHED ?	00330001
000278	4710 7402		00402	338	BO SYSEOD	00331001
00027C	45E0 70B6		000B6	339	BAL R14,NXREC GET NEXT RECORD	00332001
000280	4940 5014		00014	340	CH R4,S QUANTITY = S ?	00333001
000284	4770 7274		00274	341	BNE SYS4T13	00334001
000288	47F0 70A6		000A6	342	B RETSYS	00335001
				343 *		00336001
				344 *	LAST I/O OUTPUT AND QUANTITY > S	00337001
				345 *		00338001
00028C	5830 5008		00008	346 SYS4T15	L R3,RE FILL RECORD WITH BLANKS	00339001
000290	5B30 5004		00004	347	S R3,R	00340001
000294	4780 729E		0029E	348	BZ SYS4T14	00341001
000298	41F0 76D4		006D4	349	LA R15,SYBLANK	00342001
00029C	05EF			350	BALR R14,R15	00343001
00029E	45E0 70B6		000B6	351 SYS4T14	BAL R14,NXREC	00344001
0002A2	4940 5014		00014	352	CH R4,S QUANTITY = S ?	00345001
0002A6	4770 728C		0028C	353	BNE SYS4T15	00346001
0002AA	47F0 70A6		000A6	354	B RETSYS	00347001
				355 *		00348001
0002AE	41F0 7408		00408	356 SYS4T2	LA R15,SYSNOT QUANTITY IN NOTTAB ?	00349001
0002B2	05EF			357	BALR R14,R15	00350001
0002B4	1233			358	LTR R3,R3	00351001
0002B6	4780 743C		0043C	359	BZ SYSERR14 NO BACKWARD REP. NOT DEFINED	00352001
0002BA	9120 501A		0001A	360	TM DSF,DS2 LAST I/O OUTPUT ?	00353001
0002BE	4710 7366		00366	361	BO SYS4T24	00354001
				362 *		00355001
				363 *	LAST I/O INPUT AND QUANTITY < S	00356001
				364 *		00357001
0002C2	9604 501A		0001A	365	OI DSF,DS5 DS5=1	00358001
0002C6	94FC 501A		0001A	366	NI DSF,255-DS6-DS7 SET DS6 AND DS7 = 0	00359001
0002CA	9680 501B		0001B	367 SYS4T21	OI DSF+1,DS8 DS8=1	00360001
		R:8	00000	368	USING IHADCB,R8	00361001
				369 *		00362001
				370	CHECK SYDECB	00363001
0002CE	4110 8058		00058	371+	LA 1,SYDECB LOAD PARAMETER REG 1	02-IHBN
0002D2	58E0 1008		00008	372+	L 14,8(0,1) PICK UP DCB ADDR	01-CHECK
0002D6	58F0 E034		00034	373+	L 15,52(0,14) LOAD CHECK ROUTINE ADDR	01-CHECK
0002DA	05EF			374+	BALR 14,15 LINK TO CHECK ROUTINE	01-CHECK
				375 *		00364001
0002DC	947F 501B		0001B	376	NI DSF+1,255-DS8 SET DS8=0	00365001
0002E0	180A			377 SYS4T22	LR R0,R10	00366001
0002E2	1818			378	LR R1,R8	00367001
				379 *		00368001
				380	POINT (1),(0)	00369001
0002E4	58F0 1054		00054	381+	L 15,84(0,1) LOAD POINT RTN ADDR	01-POINT
0002E8	45EF 0004		00004	382+	BAL 14,4(15,0) LINK TO POINT ROUTINE	01-POINT
				383 *		00370001
0002EC	5820 500C		0000C	384	L R2,NBB	00371001
				385 *		00372001

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				386	READ	SYDECB, SF, (R8), (R2), MF=E	00373001
0002F0 4110 8058			00058	387+	LA	1, SYDECB	02-IHBRD
0002F4 9280 1005		00005		388+	MVI	5(1), X'80'	02-IHBRD
0002F8 5081 0008			00008	389+	ST	R8, 8(1, 0)	02-IHBRD
0002FC 5021 000C			0000C	390+	ST	R2, 12(1, 0)	02-IHBRD
000300 58F1 0008			00008	391+	L	15, 8(1, 0)	02-IHBRD
000304 58F0 F030			00030	392+	L	15, 48(0, 15)	02-IHBRD
000308 05EF				393+	BALR	14, 15	02-IHBRD
				394 *			00374001
00030A 5820 5010			00010	395	L	R2, BB	00375001
00030E 4A20 5020			00020	396	AH	R2, BL	00376001
000312 5020 5008			00008	397	ST	R2, RE	00377001
000316 1824				398	LR	R2, R4	00378001
000318 0620				399	BCTR	R2, 0	00379001
00031A 4020 5014			00014	400	STH	R2, S	00380001
00031E 45E0 70B6			000B6	401	BAL	R14, NXREC	00381001
000322 9140 501A		0001A		402	TM	DSF, DS1	00382001
000326 4710 70A6			000A6	403	BO	RETSYS	00383001
00032A 1B22				404	SR	R2, R2	00384001
00032C 5830 5020			00020	405	L	R3, BL	00385001
000330 8830 0010			00010	406	SRL	R3, 16	00386001
000334 5810 5014			00014	407	L	R1, S	00387001
000338 8910 0010			00010	408	SLL	R1, 16	00388001
00033C 8810 0010			00010	409	SRL	R1, 16	00389001
000340 1D21				410	DR	R2, R1	00390001
000342 1813				411	LR	R1, R3	00391001
000344 1B22				412	SR	R2, R2	00392001
000346 1834				413	LR	R3, R4	00393001
000348 0630				414	BCTR	R3, 0	00394001
00034A 1D21				415	DR	R2, R1	00395001
00034C 1C21				416	MR	R2, R1	00396001
00034E 4133 0001			00001	417	LA	R3, 1(R3)	00397001
000352 4030 5014			00014	418	STH	R3, S	00398001
000356 4940 5014			00014	419	CH	R4, S	00399001
00035A 4780 70A6			000A6	420	BE	RETSYS	00400001
00035E 45E0 70B6			000B6	421	BAL	R14, NXREC	00401001
000362 47F0 7356			00356	422	B	SYS4T23	00402001
				423 *			00403001
				424 *		LAST I/O WAS OUTPUT AND QUANTITY < S	00404001
				425 *			00405001
000366 9140 501A		0001A		426	SYS4T24	TM DSF, DS1	00406001
00036A 4710 737A			0037A	427	BO	SYS4T25	00407001
00036E 5830 5010			00010	428	L	R3, BB	00408001
000372 4A30 5020			00020	429	ST	R3, BL	00409001
000376 5030 5008			00008	430	ST	R3, RE	00410001
00037A 5830 5008			00008	431	S	R3, RE	00411001
00037E 5830 5004			00004	432	S	R3, R	00412001
000382 4780 738C			0038C	433	BZ	SYS4T26	00413001
000386 41F0 76D4			006D4	434	LA	R15, SYBLANK	00414001
00038A 05EF				435	BALR	R14, R15	00415001
00038C 45E0 70B6			000B6	436	SYS4T26	BAL R14, NXREC	00416001
				437 *			00417001
				438	SYS4T27	CHECK SYDECB	00418001
000390 4110 8058			00058	439+	SYS4T27	LA 1, SYDECB	02-IHBRD
000394 58E0 1008			00008	440+	L	14, 8(0, 1)	01-CHECK
000398 58F0 E034			00034	441+	L	15, 52(0, 14)	01-CHECK
00039C 05EF				442+	BALR	14, 15	01-CHECK
				443 *			00419001
				444	CLOSE	((R8), LEAVE), TYPE=T	00420001
00039E 0700				445+	CNOP	0, 4	01-CLOSE
0003A0 4510 73A8			003A8	446+	BAL	1, *+8	01-CLOSE
0003A4 00000000				447+	DC	A(0)	01-CLOSE
0003A8 5081 0000			00000	448+	ST	R8, 0(1, 0)	01-CLOSE
0003AC 92B0 1000			00000	449+	MVI	0(1), 176	01-CLOSE
0003B0 0A17				450+	SVC	23	01-CLOSE
				451 *			00421001
0003B2 9604 501A			0001A	452	OI	DSF, DS5	00422001
0003B6 94DD 501A			0001A	453	NI	DSF, 255-DS2-DS6	00423001
0003BA 47F0 72E0			002E0	454	B	SYS4T22	00424001
				455 *			00425001
0003BE 9120 501A			0001A	456	SYS4T3	TM DSF, DS2	00426001
0003C2 4780 73F2			003F2	457	BZ	SYS4T31	00427001
				458 *			00428001
				459 *		LAST I/O OUTPUT AND QUANTITY = S	00429001
				460 *			00430001
0003C6 9608 501A			0001A	461	OI	DSF, DS4	00431001
0003CA 5830 5010			00010	462	L	R3, BB	00432001
0003CE 4A30 5020			00020	463	AH	R3, BL	00433001
0003D2 5030 5008			00008	464	ST	R3, RE	00434001
0003D6 5830 5004			00004	465	S	R3, R	00435001
0003DA 4780 73E4			003E4	466	BZ	SYS4T33	00436001
0003DE 41F0 76D4			006D4	467	LA	R15, SYBLANK	00437001
0003E2 05EF				468	BALR	R14, R15	00438001
0003E4 45E0 70B6			000B6	469	SYS4T33	BAL R14, NXREC	00439001
0003E8 41F0 7408			00408	470	LA	R15, SYSNOT	00440001
0003EC 05EF				471	BALR	R14, R15	00441001
0003EE 47F0 7390			00390	472	B	SYS4T27	00442001
				473 *			00443001
				474 *		LAST I/O INPUT AND QUANTITY = S	00444001
				475 *			00445001
0003F2 5820 5008			00008	476	SYS4T31	L R2, RE	00446001
0003F6 4820 5016			00016	477	SH	R2, P	00447001
0003FA 5020 5004			00004	478	ST	R2, R	00448001
0003FE 47F0 70A6			000A6	479	B	RETSYS	00449001
				480 *			00450001
000402 18DC				481	SYSEOD	LR R13, R12	00451001



Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
000404	47FC 01E0		001E0	482	B	FSAERR+5*4(R12)	00452001
				483	*		00453001
				484	*	SCAN NOTTAB IN ORDER TO FIND OUT IF AN ENTRY HAS BEEN	00454001
				485	*	MADE FOR QUANTITY	00455001
				486	*	IF YES R3 IS SET TO ONE, ADDR OF NOTEADR IN R10	00456001
				487	*		00457001
000408	583C 00B0		000B0	488	SYSNOT	L R3,ANOTTAB(R12)	00458001
00040C	18A3			489	LR	R10,R3	00459001
00040E	59A0 3000		00000	490	SYSNOT1	C R10,0(,R3)	00460001
000412	4780 7438		00438	491	BE	SYSNOT2	00461001
000416	41A0 A008		00008	492	LA	R10,8(,R10)	00462001
00041A	1826			493	LR	R2,R6	00463001
00041C	4920 A000		00000	494	CH	R2,0(,R10)	00464001
000420	4770 740E		0040E	495	BNE	SYSNOT1	00465001
000424	4940 A002		00002	496	CH	R4,2(,R10)	00466001
000428	4770 740E		0040E	497	BNE	SYSNOT1	00467001
00042C	1833			498	SR	R3,R3	00468001
00042E	4130 3001		00001	499	LA	R3,1(,R3)	00469001
000432	41A0 A004		00004	500	LA	R10,4(,R10)	00470001
000436	07FE			501	BR	R14	00471001
				502	*		00472001
000438	1833			503	SYSNOT2	SR R3,R3	00473001
00043A	07FE			504	BR	R14	00474001
				505	*		00475001
00043C	18DC			506	SYSERR14	LR R13,R12	00476001
00043E	47FC 0204		00204	507	B	FSAERR+14*4(R12)	00477001
				508	*		00478001
				509	*		00479001
				510	*	ROUTINE SYSACT5	00480001
				511	*		00481001
				512	*		00482001
				513	*	QUANTITY = P	00483001
				514	*		00484001
000442	9180 501A	0001A		515	SYSACT5	TM DSF,DS0	00485001
000446	4780 70C8		000C8	516	BZ	SYSCLDSD	00486001
00044A	1299			517	LTR	R9,R9	00487001
00044C	4780 70D4		000D4	518	BZ	SYSCONST	00488001
000450	4840 5016		00016	519	LH	R4,P	00489001
000454	5040 2000		00000	520	ST	R4,0(,R2)	00490001
000458	47F0 70A6		000A6	521	B	RETSYS	00491001
				522	*		00492001
				523	*		00493001
				524	*	ROUTINE SYSACT6	00494001
				525	*		00495001
				526	*		00496001
				527	*	P = QUANTITY	00497001
				528	*	DATASET HAS TO BE CLOSED	00498001
				529	*		00499001
00045C	9180 501A	0001A		530	SYSACT6	TM DSF,DS0	00500001
000460	4710 747A		0047A	531	BO	SYSOPEN	00501001
000464	1244			532	LTR	R4,R4	00502001
000466	47D0 74C6		004C6	533	BNP	SYSQOUTR	00503001
00046A	5940 7738		00738	534	C	R4,=F'32760'	00504001
00046E	4720 74C6		004C6	535	BH	SYSQOUTR	00505001
000472	4040 5016		00016	536	STH	R4,P	00506001
000476	47F0 70A6		000A6	537	B	RETSYS	00507001
				538	*		00508001
00047A	18DC			539	SYSOPEN	LR R13,R12	00509001
00047C	47FC 01F8		001F8	540	B	FSAERR+11*4(R12)	00510001
				541	*		00511001
				542	*		00512001
				543	*	ROUTINE SYSACT7	00513001
				544	*		00514001
				545	*		00515001
				546	*	QUANTITY = Q	00516001
				547	*		00517001
000480	1299			548	SYSACT7	LTR R9,R9	00518001
000482	4780 70D4		000D4	549	BZ	SYSCONST	00519001
000486	1844			550	SR	R4,R4	00520001
000488	4340 5019		00019	551	IC	R4,Q	00521001
00048C	5040 2000		00000	552	ST	R4,0(,R2)	00522001
000490	47F0 70A6		000A6	553	B	RETSYS	00523001
				554	*		00524001
				555	*		00525001
				556	*	ROUTINE SYSACT8	00526001
				557	*		00527001
				558	*		00528001
				559	*	Q = QUANTITY	00529001
				560	*	DATASET HAS TO BE CLOSED	00530001
				561	*	ASSIGNING A VALUE TO Q	00531001
				562	*		00532001
000494	9180 501A	0001A		563	SYSACT8	TM DSF,DS0	00533001
000498	4710 747A		0047A	564	BO	SYSOPEN	00534001
00049C	1266			565	LTR	R6,R6	00535001
00049E	4780 75CA		005CA	566	BZ	SYSINCOM	00536001
0004A2	1234			567	LTR	R3,R4	00537001
0004A4	47D0 74C6		004C6	568	BNP	SYSQOUTR	00538001
0004A8	5830 74CC		004CC	569	S	R3,KF256	00539001
0004AC	4720 74C6		004C6	570	BP	SYSQOUTR	00540001
0004B0	4780 74C6		004C6	571	BZ	SYSQOUTR	00541001
0004B4	4240 5019		00019	572	STC	R4,Q	00542001
0004B8	9640 501B		0001B	573	OI	DSF+1,DS9	00543001
0004BC	47F0 70A6		000A6	574	B	RETSYS	00544001
				575	*		00545001
0004C0	18DC			576	SYSDSN0	LR R13,R12	00546001
0004C2	47FC 01CC		001CC	577	B	FSAERR(R12)	00547001

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				578 *		00548001
0004C6	18DC			579 SYSQOUTR LR R13,R12	QUANTITY OUT OF RANGE ERROR 13	00549001
0004C8	47FC 0200		00200	580 B FSAERR+13*4(R12)		00550001
				581 *		00551001
0004CC	00000100			582 KF256 DC F'256'		00552001
				583 *		00553001
				584 *-----		00554001
				585 * ROUTINE SYSACT9		00555001
				586 *-----		00556001
				587 *		00557001
				588 * QUANTITY = K		00558001
				589 *		00559001
0004D0	1299			590 SYSACT9 LTR R9,R9		00560001
0004D2	4780 70D4		000D4	591 BZ SYSCONST	QUANTITY NOT A VARIABLE ERR 12	00561001
0004D6	1B44			592 SR R4,R4		00562001
0004D8	4340 5018		00018	593 IC R4,K		00563001
0004DC	5040 2000		00000	594 ST R4,0(,R2)		00564001
0004E0	47F0 70A6		000A6	595 B RETSYS		00565001
				596 *		00566001
				597 *-----		00567001
				598 * ROUTINE SYSACT10		00568001
				599 *-----		00569001
				600 *		00570001
				601 * K = QUANTITY		00571001
				602 * ASSIGN NUMBER OF BLANK DELIMITERS		00572001
				603 *		00573001
0004E4	1244			604 SYSACT10 LTR R4,R4	TEST QUANTITY	00574001
0004E6	47D0 74C6		004C6	605 BNP SYSQOUTR	MINUS OR ZERO	00575001
0004EA	5940 74CC		004CC	606 C R4,KF256		00576001
0004EE	47B0 74C6		004C6	607 BNL SYSQOUTR	TOO GREAT	00577001
0004F2	4240 5018		00018	608 STC R4,K		00578001
0004F6	47F0 70A6		000A6	609 B RETSYS		00579001
				610 *		00580001
				611 *-----		00581001
				612 * ROUTINE SYSACT11		00582001
				613 *-----		00583001
				614 *		00584001
				615 * ASSIGN VALUE TO QUANTITY FOR DEFINING IF DATASET OPEN		00585001
				616 * OR CLOSED		00586001
				617 *		00587001
0004FA	1299			618 SYSACT11 LTR R9,R9		00588001
0004FC	4780 70D4		000D4	619 BZ SYSCONST	QUANTITY NOT A VARIABLE ERR 12	00589001
000500	1B44			620 SR R4,R4		00590001
000502	9180 501A		0001A	621 TM DSF,DS0		00591001
000506	4780 756E		0056E	622 BZ SYS11T1	DATASET IS CLOSED	00592001
00050A	4140 4001		00001	623 LA R4,1(,R4)		00593001
00050E	9101 501A		0001A	624 TM DSF,DS7		00594001
000512	4710 756C		0056C	625 BO SYS11T2	DS7 EQUAL 1	00595001
000516	9120 501A		0001A	626 TM DSF,DS2		00596001
00051A	4710 756E		0056E	627 BO SYS11T1	OUTPUT	00597001
00051E	9140 501A		0001A	628 TM DSF,DS1		00598001
000522	4710 756E		0056E	629 BO SYS11T1	UNBLOCKED	00599001
000526	58B0 5004		00004	630 L R11,R		00600001
00052A	5810 5008		00008	631 L R1,RE		00601001
00052E	4B10 5016		00016	632 SH R1,P		00602001
000532	191B			633 CR R1,R11		00603001
000534	4770 756E		0056E	634 BNE SYS11T1	R NOT EQUAL RE MINUS P	00604001
000538	5810 5010		00010	635 L R1,BB		00605001
00053C	4A10 5020		00020	636 AH R1,BL		00606001
000540	1B1B			637 SR R1,R11		00607001
000542	9540 B000		00000	638 SYS11T3 CLI 0(R11),C' '		00608001
000546	4770 756E		0056E	639 BNE SYS11T1	CHARACTER NOT BLANK	00609001
00054A	41BB 0001		00001	640 LA R11,1(R11)		00610001
00054E	4610 7542		00542	641 BCT R1,SYS11T3		00611001
000552	58B0 5000		00000	642 L R8,ADCB		00612001
				643 *		00613001
				644 * CHECK SYDECB		00614001
000556	4110 8058		00058	645+ LA 1,SYDECB	LOAD PARAMETER REG 1	02-IHBN
00055A	58F0 1008		00008	646+ L 14,8(0,1)	PICK UP DCB ADDR	01-CHECK
00055E	58F0 E034		00034	647+ L 15,52(0,14)	LOAD CHECK ROUTINE ADDR	01-CHECK
000562	05EF			648+ BALR 14,15	LINK TO CHECK ROUTINE	01-CHECK
				649 *		00615001
000564	9101 501A		0001A	650 TM DSF,DS7		00616001
000568	4780 756E		0056E	651 BZ SYS11T1	NO END OF DATA	00617001
00056C	1144			652 SYS11T2 LNR R4,R4		00618001
00056E	5040 2000		00000	653 SYS11T1 ST R4,0(,R2)		00619001
000572	47F0 70A6		000A6	654 B RETSYS		00620001
				655 *		00621001
				656 *-----		00622001
				657 * ROUTINE SYSACT12		00623001
				658 *-----		00624001
				659 *		00625001
				660 * OPEN OR CLOSE DATASET		00626001
				661 *		00627001
000576	1244			662 SYSACT12 LTR R4,R4		00628001
000578	4780 759A		0059A	663 BZ SYS12T1		00629001
00057C	4640 74C6		004C6	664 BCT R4,SYSQOUTR	QUANTITY OUT OF RANGE	00630001
000580	9180 501A		0001A	665 TM DSF,DS0	ROUTINE SHOULD PERFORM OPEN	00631001
000584	4710 75AC		005AC	666 BO SYS12T2	DATASET WAS OPEN ALREADY	00632001
000588	9620 501B		0001B	667 OI DSF+1,DS10	DS10=1 DS OPENED BY SYSACT 12	00633001
00058C	58FC 011C		0011C	668 L R15,IORLST(R12)		00634001
000590	58FF 0014		00014	669 L R15,QQ(R15)	OPEN DATASET	00635001
000594	05EF			670 BALR R14,R15		00636001
000596	47F0 70A6		000A6	671 B RETSYS		00637001
				672 *		00638001
00059A	9180 501A		0001A	673 SYS12T1 TM DSF,DS0	ROUTINE SHOULD PERFORM CLOSE	00639001

Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
00059E	4780 75AC		005AC	674	BZ	SYS12T2	DATASET WAS CLOSED ALREADY 00640001
0005A2	58FC 011C		0011C	675	L	R15,IORLST(R12)	00641001
0005A6	58F0 F004		00004	676	L	R15,CL(,R15)	00642001
0005AA	05EF			677	BALR	R14,R15	00643001
0005AC	47F0 70A6		000A6	678	SYS12T2	B RETSYS	00644001
				679	*		00645001
				680	*		00646001
				681	*	ROUTINE SYSACT13	00647001
				682	*		00648001
				683	*		00649001
				684	*	QUANTITY = 5	00650001
				685	*	SETTING DS4 FLAG USED BY A LATER SYSACT4 FOR AN ENTRY	00651001
				686	*	TO NOTTAB	00652001
				687	*		00653001
0005B0	9180 501A	0001A		688	SYSACT13	TM DSF,DS0	00654001
0005B4	4780 70C8		000C8	689	BZ	SYSCLSD	DATASET IS CLOSED ERROR10 00655001
0005B8	9140 501B		0001B	690	TM	DSF+1,DS9	DATASET SECTIONED ? 00656001
0005BC	4710 75CA		005CA	691	BO	SYSINCOM	YES, INCOMPATIBLE ACTION 00657001
0005C0	1236			692	LTR	R3,R6	DATASET NO = 1 OR 0 ? 00658001
0005C2	4780 75CA		005CA	693	BZ	SYSINCOM	00659001
0005C6	4630 75D0		005D0	694	BCT	R3,SYS13T1	00660001
				695	*		00661001
0005CA	18DC			696	SYSINCOM	LR R13,R12	INCOMPATIBLE ACTION ON THE SAME 00662001
0005CC	47FC 01D4		001D4	697	B	FSAERR+2*4(R12)	DATASET 00663001
				698	*		00664001
0005D0	1299			699	SYS13T1	LTR R9,R9	00665001
0005D2	4780 70D4		000D4	700	BZ	SYSCONST	QUANTITY NOT A VARIABLE ERR 12 00666001
0005D6	4840 5014		00014	701	LH	R4,S	00667001
0005DA	5040 2000		00000	702	ST	R4,0(,R2)	00668001
0005DE	9608 501A		0001A	703	OI	DSF,DS4	SET FLAG DS4 00669001
0005E2	47F0 70A6		000A6	704	B	RETSYS	00670001
				705	*		00671001
				706	*		00672001
				707	*	ROUTINE SYSACT14	00673001
				708	*		00674001
				709	*		00675001
				710	*	SKIPS RECORDS OR FILLS THEM BY BLANKS, DEPENDING ON THE	00676001
				711	*	LAST I/O PROCEDURE	00677001
				712	*		00678001
0005E6	1244			713	SYSACT14	LTR R4,R4	00679001
0005E8	47D0 74C6		004C6	714	BNP	SYSQOUTR	QUANTITY OUT OF RANGE ERROR13 00680001
0005EC	9180 501A		0001A	715	TM	DSF,DS0	00681001
0005F0	4780 70C8		000C8	716	BZ	SYSCLSD	00682001
0005F4	4A40 5014		00014	717	SYS14T1	AH R4,S	00683001
0005F8	91FF 5019		00019	718	TM	Q,X'FF'	00684001
0005FC	4780 7630		00630	719	BZ	SYS14T2	00685001
				720	*		00686001
				721	*	SECTIONED FORMAT ONLY OUTPUT POSSIBLE	00687001
				722	*		00688001
000600	1B22			723	SR	R2,R2	00689001
000602	4320 5019		00019	724	IC	R2,Q	00690001
000606	1942			725	CR	R4,R2	00691001
000608	47D0 7630		00630	726	BNH	SYS14T2	00692001
00060C	5830 5008		00008	727	L	R3,RE	00693001
000610	5B30 5004		00004	728	S	R3,R	NUMBER OF BLANKS IN R3 00694001
000614	4780 761E		0061E	729	BZ	SYS14T11	00695001
000618	41F0 76D4		006D4	730	LA	R15,SYBLANK	FILL RECORD WITH BLANKS 00696001
00061C	05EF			731	BALR	R14,R15	00697001
00061E	D200 5015	5019	00015	732	SYS14T11	MVC S+1(1),Q	00698001
000624	9620 501A		0001A	733	OI	DSF,DS2	OUTPUT 00699001
000628	45E0 70B6		000B6	734	BAL	R14,NXREC	SKIP TO BEGIN OF NEXT SECTION 00700001
00062C	47F0 70A6		000A6	735	B	RETSYS	00701001
				736	*		00702001
				737	*	NOT SECTIONED FORMAT OR QUANTITY LESS OR EQUAL Q	00703001
				738	*		00704001
000630	9120 501A		0001A	739	SYS14T2	TM DSF,DS2	00705001
000634	4780 765A		0065A	740	BZ	SYS14T4	LAST I/O WAS INPUT 00706001
000638	5830 5008		00008	741	SYS14T3	L R3,RE	00707001
00063C	5B30 5004		00004	742	S	R3,R	00708001
000640	4780 764A		0064A	743	BZ	SYS14T5	00709001
000644	41F0 76D4		006D4	744	LA	R15,SYBLANK	FILL RECORD WITH BLANKS 00710001
000648	05EF			745	BALR	R14,R15	00711001
00064A	45E0 70B6		000B6	746	SYS14T5	BAL R14,NXREC	00712001
00064E	4940 5014		00014	747	CH	R4,S	00713001
000652	4770 7638		00638	748	BNE	SYS14T3	00714001
000656	47F0 70A6		000A6	749	B	RETSYS	00715001
				750	*		00716001
				751	*	INPUT	00717001
				752	*		00718001
00065A	9120 501B		0001B	753	SYS14T4	TM DSF+1,DS10	DS BEEN OPENED BY SYSACT 12 ? 00719001
00065E	4710 767A		0067A	754	BO	SYS14T7	00720001
				755	*		00721001
				756	*	ONLY INPUT READ THE FOLLOWING UNTIL RECORD POINTER S	00722001
				757	*	EQUALS QUANTITY	00723001
				758	*		00724001
000662	9101 501A		0001A	759	SYS14T6	TM DSF,DS7	EOD BEEN REACHED ? 00725001
000666	4710 7402		00402	760	BO	SYSEOD	00726001
00066A	45E0 70B6		000B6	761	BAL	R14,NXREC	00727001
00066E	4940 5014		00014	762	CH	R4,S	00728001
000672	4780 70A6		000A6	763	BE	RETSYS	00729001
000676	47F0 7662		00662	764	B	SYS14T6	00730001
				765	*		00731001
00067A	1266			766	SYS14T7	LTR R6,R6	DATASET NUMBER = 0 ? 00732001
00067C	4780 75CA		005CA	767	BZ	SYSINCOM	YES, BRANCH 00733001
000680	9620 501A		0001A	768	OI	DSF,DS2	OUTPUT 00734001
000684	47F0 7638		00638	769	B	SYS14T3	00735001

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				770 *		00736001
				771 *		00737001
				772 *	ROUTINE SYSACT15	00738001
				773 *		00739001
				774 *		00740001
				775 *	SKIP TO RECORD EQUAL QUANTITY IN NEXT SECTION IF DATA	00741001
				776 *	IS NOT SECTIONED. SYSACT14 IS INVOKED	00742001
				777 *		00743001
000688	1244			778 SYSACT15	LTR R4,R4	00744001
00068A	47D0 74C6		004C6	779	BNP SYSQOUTR	00745001
00068E	9180 501A	0001A		780	TM DSF,DS0	00746001
000692	4780 70C8		000C8	781	BZ SYSCLOS0	00747001
000696	91FF 5019	00019		782	TM Q,X'FF'	00748001
00069A	4780 75F4		005F4	783	BZ SYS14T1	00749001
				784 *	DATA IS NOT SECTIONED SYSACT14	00750001
					IS INVOKED	00751001
00069E	1B33			785	SR R3,R3	00752001
0006A0	4330 5019		00019	786	IC R3,Q	00753001
0006A4	1943			787	CR R4,R3	00754001
0006A6	4720 74C6		004C6	788	BH SYSQOUTR	00755001
0006AA	5830 5008		00008	789	L R3,RE	00756001
0006AE	5830 5004		00004	790	S R3,R	00757001
0006B2	4780 76BC		006BC	791	BZ SYS15T0	00758001
0006B6	41F0 76D4		006D4	792	LA R15,SYBLANK	00759001
0006BA	05EF			793	BALR R14,R15	00760001
0006BC	D200 5015	5019 00015	00019	794 SYS15T0	MVC S+1(1),Q	00761001
0006C2	9620 501A		0001A	795	OI DSF,DS2	00762001
0006C6	45E0 70B6		000B6	796	BAL R14,NXREC	00763001
0006CA	1834			797	LR R3,R4	00764001
0006CC	4630 7638		00638	798	BCT R3,SYS14T3	00765001
				799 *		00766001
0006D0	47F0 70A6		000A6	800 SYS15T1	B RETSYS	00767001
				801 *	QUANTITY EQUALS ONE	00768001
				802 *	FIRST RECORD IN NEXT SECTION	00769001
				803 *		00770001
				804 *	SYBLANK FILL RECORD WITH BLANKS	00771001
0006D4	58B0 5004		00004	805 SYBLANK	L R11,R	00772001
0006D8	9240 B000	00000		806 SYBLANK1	MVI 0(R11),C'	00773001
0006DC	41B0 B001		00001	807	LA R11,1(,R11)	00774001
0006E0	4630 76D8		006D8	808	BCT R3,SYBLANK1	00775001
0006E4	07FE			809	BR R14	00776001
				810 *		00777001
				811 *	CONSTANTS	00778001
				812 *		00779001
0006E6	0000					00780001
0006E8	0000000000000000			813 SAVEAR	DC 18F'0'	00781001
				814 *	SAVEAREA	00782001
000730				815	LTORG	00783001
000730	0000000F			816	=F'15'	00784001
000734	00FFFFFF			817	=X'00FFFFFF'	00785001
000738	00007FF8			818	=F'32760'	00786001
				819 *		00787001
				820 *	SYSACT VECTOR TABLE	00788001
				821 *		00789001
00073C				822 SYSVECT	DS A(0)	00790001
000740	000000C0			823	DC A(SYSACT1)	00791001
000744	000000F2			824	DC A(SYSACT2)	00792001
000748	000001F4			825	DC A(SYSACT3)	00793001
00074C	0000020E			826	DC A(SYSACT4)	00794001
000750	00000442			827	DC A(SYSACT5)	00795001
000754	0000045C			828	DC A(SYSACT6)	00796001
000758	00000480			829	DC A(SYSACT7)	00797001
00075C	00000494			830	DC A(SYSACT8)	00798001
000760	000004D0			831	DC A(SYSACT9)	00799001
000764	000004E4			832	DC A(SYSACT10)	00800001
000768	000004FA			833	DC A(SYSACT11)	00801001
00076C	00000576			834	DC A(SYSACT12)	00802001
000770	000005B0			835	DC A(SYSACT13)	00803001
000774	000005E6			836	DC A(SYSACT14)	00804001
000778	00000688			837	DC A(SYSACT15)	00805001
				838 *		00806001
				839 *	DSTABLE	00807001
				840 *		00808001
				841	DSTABLE DSECT=YES	00809001
000000		00000 00024		842+DSTABLE	DSECT	01-DSTAB
				843+*		01-DSTAB
000000	00000000			844+ADCB	DC F'0'	01-DSTAB
000004	00000000			845+R	DC F'0'	01-DSTAB
000008	00000000			846+RE	DC F'0'	01-DSTAB
00000C	00000000			847+NBB	DC F'0'	01-DSTAB
000010	00000000			848+BB	DC F'0'	01-DSTAB
000014	0001			849+S	DC H'1'	01-DSTAB
000016	0050			850+P	DC H'80'	01-DSTAB
000018	02			851+K	DC X'02'	01-DSTAB
000019	00			852+Q	DC X'00'	01-DSTAB
00001A	0000			853+DSF	DC H'00'	01-DSTAB
				854+*		01-DSTAB
				855+*	DATASET FLAGS - DSF	01-DSTAB
				856+*		01-DSTAB
				857+DS0	EQU X'80'	01-DSTAB
00040				858+DS1	EQU X'40'	01-DSTAB
00020				859+DS2	EQU X'20'	01-DSTAB
00010				860+DS3	EQU X'10'	01-DSTAB
00008				861+DS4	EQU X'08'	01-DSTAB
00004				862+DS5	EQU X'04'	01-DSTAB
00002				863+DS6	EQU X'02'	01-DSTAB
00001				864+DS7	EQU X'01'	01-DSTAB

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
				865+*			01-DSTAB
				866+*		DATASET FLAGS - DSF+1	01-DSTAB
				867+*			01-DSTAB
	00080			868+DS8	EQU	X'80'	01-DSTAB
	00040			869+DS9	EQU	X'40'	01-DSTAB
	00020			870+DS10	EQU	X'20'	01-DSTAB
	00010			871+DS11	EQU	X'10'	01-DSTAB
	00008			872+DSEOD	EQU	X'08'	01-DSTAB
	00004			873+DSIOERR	EQU	X'04'	01-DSTAB
	00002			874+DS14	EQU	X'02'	01-DSTAB
	00001			875+DS15	EQU	X'01'	01-DSTAB
				876+*			01-DSTAB
00001C 00000000				877+NOTEADR	DC	F'0'	01-DSTAB
000020 0000				878+BL	DC	H'0'	01-DSTAB
000022 0000				879+	DC	H'0'	01-DSTAB
				880+*			01-DSTAB
	00024			881+DSTABLEL	EQU	*-DSTABLE	01-DSTAB
				882+*			01-DSTAB
				883 *			00805001
				884 *		DSECT FOR ADDRESSING DECB	00806001
				885 *			00807001
				886		PRINT NOGEN	00808001
				887 *			00809001
				888		DCBD DSORG=BS,DEV D=DA	00810001
				1395 *			00811001
				1396		PRINT GEN	00812001
				1397 *			00813001
				1398		READ SYDECB,SF,MF=L	00814001
000058 00000000				1399+SYDECB	DC	F'0'	02-IHBRD
00005C 00				1400+	DC	X'00'	02-IHBRD
00005D 80				1401+	DC	X'80'	02-IHBRD
00005E 0000				1402+	DC	AL2(0)	02-IHBRD
000060 00000000				1403+	DC	A(0)	02-IHBRD
000064 00000000				1404+	DC	A(0)	02-IHBRD
000068 00000000				1405+	DC	A(0)	02-IHBRD
				1406 *			00815001
000000		00000	00120	1407 FAS		DSECT	00816001
				1408 *			00817001
				1409		COPY FSAREA	00818001
				1410=*			00001001
				1411=*		COMPONENT ID - 360S-LM-532 ALGOL F LIBRARY	00002001
				1412=*			00003001
				1413=*		STATUS - LEVEL 2.1	00004001
				1414=*			00005001
				1415=*****			00006001
				1416=*			00007001
				1417=*		COMMON DATA AREA	00008001
				1418=*			00009001
				1419=*		FSAREA	00010001
				1420=*			00011001
				1421=*****			00012001
				1422=*			00013001
				1423=*		DATA THAT IS IMMEDIATELY ACCESSIBLE TO ALL	00014001
				1424=*		MODULES DURING THE EXECUTION	00015001
				1425=*			00016001
				1426=*		ADDRESSED BY MEANS OF R13 OR (FOR THE LIBRARY	00017001
				1427=*		SUBROUTINES) BY R12	00018001
				1428=*			00019001
		00000		1429=FSAREA	EQU	*	00020001
				1430=*			00021001
				1431=*		SAVE AREAS	00022001
				1432=*			00023001
000000				1433=	DS	18F	00024001
		00048		1434=ASAVE	EQU	*-FSAREA	00025001
000048				1435=	DS	18F	00026001
				1436=*			00027001
				1437=*		MISCELLANEOUS WORK AREAS AND CONSTANTS	00028001
				1438=*			00029001
		00090		1439=FCTVALST	EQU	*-FSAREA	00030001
000090				1440=	DS	D	00031001
		00098		1441=ASTLOC	EQU	*-FSAREA	00032001
000098 00000090				1442=	DC	A(FSAREA+FCTVALST)	00033001
		0009C		1443=BRRST	EQU	*-FSAREA	00034001
00009C		0009C		1444=HW	EQU	BRRST	00035001
				1445=	DS	F	00036001
		000A0		1446=PROLREG	EQU	*-FSAREA	00037001
0000A0				1447=	DS	2A	00038001
				1448=*			00039001
				1449=*		HALFWORD CONTAINING PBN OF CALLED BLOCK IN SECOND BYTE	00040001
				1450=*			00041001
0000A8				1451=	DS	0H	00042001
0000A8 00				1452=	DC	X'00'	00043001
		000A9		1453=PROLPBN	EQU	*-FSAREA	00044001
0000A9 00				1454=	DC	X'00'	00045001
		000AA		1455=EIGHT	EQU	*-FSAREA	00046001
0000AA 0008				1456=	DC	H'8'	00047001
				1457=*			00048001
0000AC				1458=	DS	0F	00049001
		000AC		1459=ADSTAB	EQU	*-FSAREA	00050001
0000AC				1460=	DS	A	00051001
		000B0		1461=ANOTTAB	EQU	*-FSAREA	00052001
0000B0				1462=	DS	A	00053001
				1463=*			00054001
		000B4		1464=IHIFAST	EQU	*	00055001
0000B4		000B4		1465=PGOPSW	EQU	*-FSAREA	00056001
				1466=	DS	2F	00057001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source	Statement	X390 3.1.04 2012/08/17 13.22
0000BC	00000000	000BC		1467=FSAPICA	EQU	*-FSAREA	OLD PICA ADDR 00058001
				1468=	DC	F'0'	00059001
0000C0		000C0		1469=SCRC5	EQU	*-FSAREA	SEMICOLON NUMBER 00060001
				1470=	DS	H	00061001
		000C2		1471=DT5W	EQU	*-FSAREA	OPTION SWITCHES 00062001
		000C2		1472=OPT5W	EQU	DT5W	00063001
0000C2 00				1473=	DC	X'00'	DUMP-80, TRACE-40, SHORT-20 00064001
		000C3		1474=FSAERCOD	EQU	*-FSAREA	ERROR CODE FOR ERROR ROUTINE 00065001
0000C3				1475=	DS	C	00066001
				1476=*			00067001
				1477=*		RETURN ADDRESS STACK POINTERS DO NOT CHANGE ORDER	00068001
				1478=*			00069001
0000C4				1479=	DS	0F	00070001
		000C4		1480=IHIFSARS	EQU	*	00071001
		000C4		1481=RASSTART	EQU	*-FSAREA	ADDR OF FIRST ENTRY IN RAS-8 00072001
0000C4				1482=	DS	F	00073001
		000C8		1483=RASPT	EQU	*-FSAREA	RAS POINTER FROM TOP 00074001
0000C8				1484=	DS	F	00075001
		000CC		1485=RASEND	EQU	*-FSAREA	ADDR OF LAST ENTRY IN RAS+8 00076001
0000CC				1486=	DS	F	00077001
		000D0		1487=RASPB	EQU	*-FSAREA	RAS POINTER FROM BOTTOM 00078001
0000D0				1488=	DS	F	00079001
				1489=*			00080001
				1490=*		LIST OF BRANCH INSTRUCTIONS TO COMMONLY USED SUBROUTINES	00081001
				1491=*			00082001
0000D4				1492=BRLIST	DS	0F	00083001
		000D4		1493=CAP1	EQU	*-FSAREA	FIRST PART CAPS 00084001
0000D4 4700 0000		00000	00000	1494=	NOP	0	00085001
		000D8		1495=CAP2	EQU	*-FSAREA	SECOND PART CAPS 00086001
0000D8 4700 0000		00000	00000	1496=	NOP	0	00087001
		000DC		1497=PROLOGP	EQU	*-FSAREA	PROLOGUE FORMAL PARAMETER ENTRY 00088001
		000DC		1498=PROLOGFP	EQU	PROLOGP	00089001
0000DC 4700 0000		00000	00000	1499=	NOP	0	00090001
		000E0		1500=PROLOG	EQU	*-FSAREA	PROLOGUE PROGRAM USUAL ENTRY 00091001
0000E0 4700 0000		00000	00000	1501=	NOP	0	00092001
		000E4		1502=RETPROG	EQU	*-FSAREA	DISPLACEMENT RETURN PROGRAM 00093001
0000E4 4700 0000		00000	00000	1503=	NOP	0	00094001
		000E8		1504=EPILOGP	EQU	*-FSAREA	EPILOGUE PROGRAM,PROCEDURE ENTRY 00095001
0000E8 4700 0000		00000	00000	1505=	NOP	0	00096001
		000EC		1506=EPILOGB	EQU	*-FSAREA	EPILOGUE PROGRAM,BETA-BLOCK ENTRY 00097001
0000EC 4700 0000		00000	00000	1507=	NOP	0	00098001
		000F0		1508=EPILPR3	EQU	*-FSAREA	EPILOGUE PROGRAM ENTRY 3 00099001
0000F0 4700 0000		00000	00000	1509=	NOP	0	00100001
		000F4		1510=CSWE1	EQU	*-FSAREA	FIRST PART CSWES 00101001
0000F4 4700 0000		00000	00000	1511=	NOP	0	00102001
		000F8		1512=CSWE2	EQU	*-FSAREA	SECOND PART CSWES 00103001
0000F8 4700 0000		00000	00000	1513=	NOP	0	00104001
		000FC		1514=LOADPP	EQU	*-FSAREA	LOAD PRECOMPILED PROC ROUTINE 00105001
0000FC 4700 0000		00000	00000	1515=	NOP	0	00106001
		00100		1516=TRACE	EQU	*-FSAREA	00107001
000100 D200 0000 0000		00000	00000	1517=	MVC	0(0),0	00108001
000106 4700 0000		00000	00000	1518=	NOP	0	00109001
00010A 4700 0000		00000	00000	1519=	NOP	0	00110001
		0010E		1520=TERMNTE	EQU	*-FSAREA	NORMAL TERMINATION EXIT 00111001
00010E 4700 0000		00000	00000	1521=	NOP	0	00112001
		00112		1522=BCR	EQU	*-FSAREA	00113001
000112 0700				1523=	BCR	0,0	VARIABLE CONDITIONAL BRANCH 00114001
		00114		1524=GETMSTO	EQU	*-FSAREA	00115001
000114 4700 0000		00000	00000	1525=	NOP	0	00116001
				1526=*			00117001
		00118		1527=VALUCALL	EQU	*-FSAREA	00118001
000118 4700 0000		00000	00000	1528=	NOP	0	00119001
		0011C		1529=IORLST	EQU	*-FSAREA	00120001
00011C 4700 0000		00000	00000	1530=	NOP	0	00121001
				1531=*			00122001
		001CC		1532=FSAERR	EQU	X'1CC'	DISPL FOR ERROR LIST 00123001
				1533=*			00124001
				1534=*		DISPLACEMENTS FOR CERTAIN ERROR EXITS IN FSA	00125001
				1535=*			00126001
		0020C		1536=OUTOFB	EQU	FSAERR+4*16	00127001
		00218		1537=NUMBIND	EQU	FSAERR+4*19	00128001
		00208		1538=ARRAYBD	EQU	FSAERR+4*15	00129001
		0026C		1539=ERROR40	EQU	FSAERR+4*40	00130001
		00224		1540=OERR22	EQU	FSAERR+4*22	00131001
		00210		1541=ENDLESL	EQU	FSAERR+4*17	00132001
		00220		1542=OERR21	EQU	FSAERR+4*21	00133001
				1543=*			00134001
				1544 *			00819001
				1545		IEZREGS	00820001
		00000		1546+R0	EQU	0	01-IEZRE
		00001		1547+R1	EQU	1	01-IEZRE
		00002		1548+R2	EQU	2	01-IEZRE
		00003		1549+R3	EQU	3	01-IEZRE
		00004		1550+R4	EQU	4	01-IEZRE
		00005		1551+R5	EQU	5	01-IEZRE
		00006		1552+R6	EQU	6	01-IEZRE
		00007		1553+R7	EQU	7	01-IEZRE
		00008		1554+R8	EQU	8	01-IEZRE
		00009		1555+R9	EQU	9	01-IEZRE
		0000A		1556+R10	EQU	10	01-IEZRE
		0000B		1557+R11	EQU	11	01-IEZRE
		0000C		1558+R12	EQU	12	01-IEZRE
		0000D		1559+R13	EQU	13	01-IEZRE
		0000E		1560+R14	EQU	14	01-IEZRE
		0000F		1561+R15	EQU	15	01-IEZRE
				1562 *			00821001

D-Loc	Object Code	Addr1	Addr2	Stmt	Source Statement
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1563	END
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00822001



SYS	Symbol Cross Reference													PAGE	14		
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References		X390	3.1.04	2012/08/17	13.22				
=F'15'	4	00000730	00000001	F	F		816	119									
=F'32760'	4	00000738	00000001	F	F		818	534									
=X'00FFFFFF'	4	00000734	00000001	X	X		817	133									
ADCB	4	00000000	FFFFFFFF	F	F		844	303	642								
ANOTTAB	1	00000080			U		1461	488									
BB	4	00000010	FFFFFFFF	F	F		848	395	428	462	635						
BL	2	00000020	FFFFFFFF	H	H		878	396	405	429	463	636					
BRRST	1	0000009C			U		1443	1444									
CI	1	00000000			U		71	112									
CL	1	00000004			U		72	676									
DCBBIT0	1	00000080			U		910	996	1004	1016	1039	1066	1068	1069	1071	1094	1097
								1117	1121	1136	1173	1228	1252	1291	1295	1308	
DCBBIT1	1	00000040			U		911	997	1005	1018	1040	1041	1050	1066	1068	1070	1071
								1099	1117	1119	1121	1139	1140	1141	1176	1177	1228
								1254	1297	1299	1311	1355					
DCBBIT2	1	00000020			U		912	998	1006	1019	1020	1021	1040	1041	1045	1051	1066
								1067	1072	1101	1122	1123	1144	1145	1146	1180	1181
								1229	1259	1300	1316	1358	1361				
DCBBIT3	1	00000010			U		913	999	1019	1021	1022	1040	1053	1073	1104	1122	1125
								1148	1149	1150	1184	1185	1229	1261	1264	1266	1302
								1317	1358	1362							
DCBBIT4	1	00000008			U		914	1007	1054	1074	1105	1127	1132	1133	1153	1154	1188
								1189	1191	1192	1230	1269	1318	1358	1363		
DCBBIT5	1	00000004			U		915	1008	1055	1077	1078	1107	1127	1129	1130	1133	1157
								1159	1160	1161	1195	1196	1197	1198	1230	1271	1274
								1304	1320	1353							
DCBBIT6	1	00000002			U		916	1000	1056	1057	1060	1077	1079	1108	1164	1165	1166
								1167	1201	1202	1203	1204	1231	1277	1322	1364	
DCBBIT7	1	00000001			U		917	1001	1056	1058	1060	1081	1112	1169	1170	1207	1208
								1210	1211	1280	1306	1323	1366				
DCBFDAD	8	00000005	FFFFFFFFE	C	C		937	940									
DSF	2	0000001A	FFFFFFFFF	H	H		853	164	196	207	209	211	214	226M	241M	252	254
								258M	262M	268	282	309	316	321	326	328M	333
								337	360	365M	366M	367M	376M	402	426	452M	453M
								456	461M	515	530	563	573M	621	624	626	628
								650	665	667M	673	688	690	703M	715	733M	739
								753	759	768M	780	795M					
DSTABLE	1	00000000	FFFFFFFFF	J			842	99U	881								
DS0	1	00000080			U		857	164	196	282	316	515	530	563	621	665	673
								688	715	780							
DS1	1	00000040			U		858	402	426	628							
DS10	1	00000020			U		870	209	254	326	667	753					
DS2	1	00000020			U		859	207	226	252	258	321	328	360	453	456	626
								733	739	768	795						
DS3	1	00000010			U		860	241	262								
DS4	1	00000008			U		861	461	703								
DS5	1	00000004			U		862	365	452								
DS6	1	00000002			U		863	366	453								
DS7	1	00000001			U		864	211	214	268	333	337	366	624	650	759	
DS8	1	00000080			U		868	367	376								
DS9	1	00000040			U		869	309	573	690							
DTSW	1	000000C2			U		1471	1472									
EV	1	00000008			U		73	92									
FCTVALST	1	00000090			U		1439	1442									
FR0	1	00000000			U		66	107M	110M								
FSAERR	1	000001CC			U		1532	150B	167B	172B	194B	307B	482B	507B	540B	577B	580B
								697B	1536	1537	1538	1539	1540	1541	1542		
FSAREA	1	00000000	FFFFFFFFD	U			1429	1434	1439	1441	1442	1443	1446	1453	1455	1459	1461
								1465	1467	1469	1471	1474	1481	1483	1485	1487	1493
								1495	1497	1500	1502	1504	1506	1508	1510	1512	1514
								1516	1520	1522	1524	1527	1529				
IHADCB	1	00000000	FFFFFFFFE	J			893	368U	978	1025	1090	1219	1234	1247	1343	1349	1376
IHISYSCT	1	00000000	00000001	J			62	86U									
IORLST	1	0000011C			U		1529	91	111	154	668	675					
K	1	00000018	FFFFFFFFF	X	X		851	593	608M								
KF256	4	000004CC	00000001	F	F		582	569	606								
NBB	4	0000000C	FFFFFFFFF	F	F		847	384									
NX	1	0000000C			U		74	155									
NXREC	4	000000B6	00000001	I			154	213B	235B	339B	351B	401B	421B	436B	469B	734B	746B
								761B	796B								
OPTSW	1	000000C2			U		1472	105									
OQ	1	00000014			U		76	669									
P	2	00000016	FFFFFFFFF	H	H		850	176	191	200	219	263	271	477	519	536M	632
PROLOGP	1	000000DC			U		1497	1498									
Q	1	00000019	FFFFFFFFF	X	X		852	551	572M	718	724	732	782	786	794		
R	4	00000004	FFFFFFFFF	F	F		845	174	202	221M	231	244	247M	261	273M	347	432
								465	478M	630	728	742	790	805			
RE	4	00000008	FFFFFFFFF	F	F		846	175	199	218	230	260	270	346	397M	430M	431
								464M	476	631	727	741	789				
RETSYS	4	000000A6	00000001	I			143	179B	222B	248B	274B	288B	342B	354B	403B	420B	479B
								521B	537B	553B	574B	595B	609B	654B	671B	678B	704B
								735B	749B	763B	800B						
R0	1	00000000			U		1546	116M	117	377M							
R1	1	00000001			U		1547	103	127	378M	407M	408M	409M	410	411M	415	416
								631M	632M	633	635M	636M	637M	641M			
R10	1	0000000A			U		1556	377	489M	490	492M	494	496	500M			
R11	1	0000000B			U		1557	244M	245	630M	633	637	638	640M	805M	806	807M
R12	1	0000000C			U		1558	87M	91	105	111	149	150	154	166	167	171
								172	193	194	306	307	481	482	488	506	507



SYS	Symbol Cross Reference															PAGE	15
Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390	3.1.04	2012/08/17	13.22					
R15	1	0000000F		U			1561	809B 85 91M 92M 93B 111M 112M 113B 154M 155M 156B 233M 234B 242M 243B 265M 266B 331M 332B 349M 350B 356M 357B 434M 435B 467M 468B 470M 471B 668M 669M 670B 675M 676M 677B 730M 731B 744M 745B 792M 793B									
R2	1	00000002		U			1548	103M 107 110 116 117M 119 121M 122 127M 128M 129M 132M 133M 134 178 287 311M 313M 384M 390 395M 396M 397 398M 399M 400 404M 410M 412M 415M 416M 476M 477M 478 493M 494 520 552 594 653 702 723M 724M 725									
R3	1	00000003		U			1549	122M 141B 198M 199M 200M 201M 202M 216M 217M 230M 231M 237M 238M 239M 259M 260M 261M 263M 264M 335M 346M 347M 358M 405M 406M 411 413M 414M 417M 418 428M 429M 430 431M 432M 462M 463M 464 465M 488M 489 490 498M 499M 503M 567M 569M 692M 694M 727M 728M 741M 742M 785M 786M 787 789M 790M 797M 798M 808M									
R4	1	00000004		U			1550	134M 174M 175M 176M 177M 178 187M 191 198 216 218M 219M 220M 221 237 245M 246M 247 259 270M 271M 272M 273 286M 287 304M 318 340 352 398 413 419 496 519M 520 532M 534 536 550M 551M 552 567 572 592M 593M 594 604M 606 608 620M 623M 652M 653 662M 664M 701M 702 713M 717M 725 747 762 778M 787 797									
R5	1	00000005		U			1551	99U									
R6	1	00000006		U			1552	224M 256M 311 493 565M 692 766M									
R7	1	00000007		U			1553	85M 86U									
R8	1	00000008		U			1554	303M 368U 378 389 448 642M									
R9	1	00000009		U			1555	126M 131M 169M 284M 517M 548M 590M 618M 699M									
S	2	00000014	FFFFFFFF	H	H		849	286 318 340 352 400M 407 418M 419 701 717 732M 747 762 794M									
SAVEAR	4	000006E8	00000001	F	F		813	89M 90 143									
SYBLANK	4	000006D4	00000001	I			805	233 242 265 349 434 467 730 744 792									
SYBLANK1	4	000006D8	00000001	I			806	808B									
SYDECB	4	00000058	FFFFFFFFE	F	F		1399	371 387 439 645									
SYSACT1	4	000000C0	00000001	I			164	823									
SYSACT10	2	000004E4	00000001	I			604	832									
SYSACT11	2	000004FA	00000001	I			618	833									
SYSACT12	2	00000576	00000001	I			662	834									
SYSACT13	4	000005B0	00000001	I			688	835									
SYSACT14	2	000005E6	00000001	I			713	836									
SYSACT15	2	00000688	00000001	I			778	837									
SYSACT2	2	000000F2	00000001	I			187	824									
SYSACT2A	4	000000FC	00000001	I			191	188B									
SYSACT3	4	000001F4	00000001	I			282	825									
SYSACT4	4	0000020E	00000001	I			303	826									
SYSACT5	4	00000442	00000001	I			515	827									
SYSACT6	4	0000045C	00000001	I			530	828									
SYSACT7	2	00000480	00000001	I			548	829									
SYSACT8	4	00000494	00000001	I			563	830									
SYSACT9	2	000004D0	00000001	I			590	831									
SYSCLOSD	2	000000C8	00000001	I			166	197B 283B 317B 516B 689B 716B 781B									
SYSCONST	2	000000D4	00000001	I			171	285B 518B 549B 591B 619B 700B									
SYSE0D	2	00000402	00000001	I			481	212B 217B 269B 334B 338B 760B									
SYSERR14	2	0000043C	00000001	I			506	359B									
SYSERR9	2	000000B0	00000001	I			149	118B 120B									
SYSINCOM	2	000005CA	00000001	I			696	225B 257B 310B 312B 314B 566B 691B 693B 767B									
SYSNOT	4	00000408	00000001	I			488	331 356 470									
SYSNOT1	4	0000040E	00000001	I			490	495B 497B									
SYSNOT2	2	00000438	00000001	I			503	491B									
SYSOPEN	2	0000047A	00000001	I			539	531B 564B									
SYSQOUTR	2	000004C6	00000001	I			579	533B 535B 568B 570B 571B 605B 607B 664B 714B 779B 788B									
SYSVECT	4	0000073C	00000001	A	A		822	122									
SYS1	4	0000006A	00000001	I			116	104B									
SYS1A	2	0000006E	00000001	I			117	114B									
SYS1T1	2	000000CE	00000001	I			169	165B									
SYS1T2	4	000000DA	00000001	I			174	170B									
SYS11	4	00000058	00000001	I			110	106B									
SYS11A	4	0000005C	00000001	I			111	108B									
SYS11B	4	00000098	00000001	I			132	130B									
SYS11T1	4	0000056E	00000001	I			653	622B 627B 629B 634B 639B 651B									
SYS11T2	2	0000056C	00000001	I			652	625B									
SYS11T3	4	00000542	00000001	I			638	641B									
SYS12T1	4	0000059A	00000001	I			673	663B									
SYS12T2	4	000005AC	00000001	I			678	666B 674B									
SYS13T1	2	000005D0	00000001	I			699	694B									
SYS14T1	4	000005F4	00000001	I			717	783B									
SYS14T11	6	0000061E	00000001	I			732	729B									
SYS14T2	4	00000630	00000001	I			739	719B 726B									
SYS14T3	4	00000638	00000001	I			741	748B 769B 798B									
SYS14T4	4	0000065A	00000001	I			753	740B									
SYS14T5	4	0000064A	00000001	I			746	743B									
SYS14T6	4	00000662	00000001	I			759	764B									
SYS14T7	2	0000067A	00000001	I			766	754B									
SYS15T0	6	000006BC	00000001	I			794	791B									
SYS2T1	2	00000104	00000001	I			193	189B 192B									
SYS2T1A	4	00000150	00000001	I			218	215B									
SYS2T2	4	000001A6	00000001	I			252	203B									
SYS2T20	2	000001C0	00000001	I			259	253B									
SYS2T3	4	0000016C	00000001	I			230	208B									
SYS2T30	2	00000162	00000001	I			224	210B									
SYS2T31	4	0000017E	00000001	I			235	232B									
SYS2T32	4	00000196	00000001	I			244	240B									
SYS2T5	4	000001DA	00000001	I			268	255B									
SYS4T0	4	00000234	00000001	I			316	313B									
SYS4T01	4	0000021E	00000001	I			309	305B									

Symbol	Length	Value	Id	Type	Asm	Program	Defn	References	X390 3.1.04	2012/08/17	13.22
SYS4T12	4	00000260	00000001	I			331	327B			
SYS4T13	4	00000274	00000001	I			337	341B			
SYS4T14	4	0000029E	00000001	I			351	348B			
SYS4T15	4	0000028C	00000001	I			346	322B	329B	353B	
SYS4T2	4	000002AE	00000001	I			356	319B			
SYS4T21	4	000002CA	00000001	I			367	336B			
SYS4T22	2	000002E0	00000001	I			377	454B			
SYS4T23	4	00000356	00000001	I			419	422B			
SYS4T24	4	00000366	00000001	I			426	361B			
SYS4T25	4	0000037A	00000001	I			431	427B			
SYS4T26	4	0000038C	00000001	I			436	433B			
SYS4T27	4	00000390	00000001	I			439	472B			
SYS4T3	4	000003BE	00000001	I			456	320B			
SYS4T31	4	000003F2	00000001	I			476	457B			
SYS4T33	4	000003E4	00000001	I			469	466B			

Register	References (M=modified, B=branch, U=USING, D=DROP, N=index)												X390 3.1.04						2012/08/17 13.22					
0(0)	83	116M	117	146M	377M																			
1(1)	83	103	127	146M	371M	372	378M	381	387M	388	389N	390N	391N	407M	408M	409M	410	411M						
	415	416	439M	440	446M	448N	449	631M	632M	633	635M	636M	637M	641M	645M	646								
2(2)	83	103M	107	110	116	117M	119	121M	122N	127M	128M	129M	132M	133M	134	146M	178	287						
	311M	313M	384M	390	395M	396M	397	398M	399M	400	404M	410M	412M	415M	416M	476M	477M	478						
	493M	494	520	552	594	653	702	723M	724M	725														
3(3)	83	122M	141B	146M	198M	199M	200M	201M	202M	216M	217M	230M	231M	237M	238M	239M	259M	260M						
	261M	263M	264M	335M	346M	347M	358M	405M	406M	410M	411	413M	414M	415M	416M	417M	417N	418						
	428M	429M	430	431M	432M	462M	463M	464	465M	488M	489	490	498M	499M	503M	567M	569M	692M						
	694M	727M	728M	741M	742M	785M	786M	787	789M	790M	797M	798M	808M											
4(4)	83	134M	146M	174M	175M	176M	177M	178	187M	191	198	216	218M	219M	220M	221	237	245M						
	246M	247	259	270M	271M	272M	273	286M	287	304M	318	340	352	398	413	419	496	519M						
	520	532M	534	536	550M	551M	552	567	572	592M	593M	594	604M	606	608	620M	623M	652M						
	653	662M	664M	701M	702	713M	717M	725	747	762	778M	787	797											
5(5)	83	99U	146M																					
6(6)	83	146M	224M	256M	311	493	565M	692	766M															
7(7)	83	85M	86U	146M																				
8(8)	83	146M	303M	368U	378	389	448	642M																
9(9)	83	126M	131M	146M	169M	284M	517M	548M	590M	618M	699M													
10(A)	83	146M	377	489M	490	492M	494	496	500M															
11(B)	83	146M	244M	245	630M	633	637	638	640M	640N	805M	806	807M											
12(C)	83	87M	91	105	111	146M	149	150N	154N	166	167N	171	172N	193	194N	306	307N	481						
	482N	488N	506	507N	539	540N	576	577N	579	580N	668N	675N	696	697N										
13(D)	83	87	89	90M	143M	146	149M	166M	171M	193M	306M	481M	506M	539M	576M	579M	696M							
14(E)	83	93M	113M	146M	147B	213M	234M	235M	243M	266M	332M	339M	350M	351M	357M	372M	373	374M						
	382M	393M	401M	421M	435M	436M	440M	441	442M	468M	469M	471M	501B	504B	646M	647	648M	670M						
	677M	731M	734M	745M	746M	761M	793M	796M	809B															
15(F)	79B	83	85	91M	92M	93B	111M	112M	113B	146M	154M	155M	155N	156B	233M	234B	242M	243B						
	265M	266B	331M	332B	349M	350B	356M	357B	373M	374B	381M	382N	391M	392M	393B	434M	435B	441M						
	442B	467M	468B	470M	471B	647M	648B	668M	669M	669N	670B	675M	676M	677B	730M	731B	744M	745B						
	792M	793B																						

Dsect	Length	Id	Defn	Con	Member	X390 3.1.04	2012/08/17	13.22
DSTABLE	00000024	FFFFFFFF	842	4	DSTABLE			
FAS	00000120	FFFFFFFD	1407		PRIMARY INPUT			
IHADCB	0000006C	FFFFFFFE	893	1	DCBD			

```

1 SYS1.MACLIB
      CHECK      CLOSE      DCBD      IEZREGS  IHBINNRA  IHBWDWRS  POINT      READ      RETURN      SAVE
2 SYSD.TOOLS.MACLIB
3 SYSD.ALGOLFRT.ASM
4 SYSD.ALGOLFRT.MACLIB
      DSTABLE    FSAREA
5 SYS1.AMODGEN

```

Stmt	Level	Action	Type	Id	Address	Range	Reg	Max	Last	Text	X390 3.1.04	2012/08/17 13.22
86		USING	Ordinary	00000001	00000000	00001000	7	0073C	808	IHISYSCT,R7		
99		USING	Ordinary	FFFFFFFF	00000000	00001000	5	00020	805	DSTABLE,R5		
368		USING	Ordinary	FFFFFFFE	00000000	00001000	8	00058	645	IHADCB,R8		

X390 3.1.04 2012/08/17 13.22

No statements flagged in this assembly.

TACHYON LEGACY ASSEMBLER, VERSION 3.1.04

SYSTEM: MVS 3.8    JOBNAME: T1BLD    STEPNAME: IHISYS    PROCSTEP: X390

Primary input: lines    1 to    822 of SYSD.ALGOLFRT.ASM(IHISYS)

SYSLIB library records read: 3114

SYSUT1 work file size: 111697 bytes

SYSUT2 work file size: 292892 bytes

SYSUT3 work file size: 65760 bytes

SYSLIN file records written: 39

TXA000I Return code 0, elapsed time 1.06 seconds.

INITOBJ - Uninitialized Areas Page No. 1  
Csect Rel Addr(hex) Length(dec)  
IHISYSCT 00077C 4



**LINKEDIT**

**RELEASE**

**LVL2.1**

# F64-LEVEL LINKAGE EDITOR OPTIONS SPECIFIED LIST,LET,MAP,NCAL

```

DEFAULT OPTION(S) USED - SIZE=(1015808,516096)
IEW0000      INCLUDE  OBJECT(IHIERR)                00046001
IEW0000      INCLUDE  OBJECT(IHIERM)                00047001
IEW0000      IDENTIFY IHIERROR('360SLM532 V02 M01 ALGOL F LIBRARY') 00048001
IEW0670      IHIERROR      360SLM532 V02 M01 ALGOL F LIBRARY
IEW0000      IDENTIFY IHIERRMSG('360SLM532 V02 M01 ALGOL F LIBRARY') 00049001
IEW0670      IHIERRMSG      360SLM532 V02 M01 ALGOL F LIBRARY
IEW0000      ENTRY    IHIERROR                      00050001
IEW0000      ALIAS    IHIERROR                      00051001
IEW0000      NAME     IHIERR(R)                      LOADED DYNAMICALLY FROM LINKLIB 00052001
    
```

## MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIERROR	00	6E8								
IHIERRMSG	6E8	9B8								
			IHIERM01	798						

ENTRY ADDRESS            00

TOTAL LENGTH            10A0

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

\*\*\*\*IHIERROR IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS       0.

## DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0461  
IEW0461

INCLUDE OBJECT(IHIFDD)  
IDENTIFY IHIFDDXP('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIFDDXP 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHIFDD(R)  
IHILLO  
IHILEX

00053001  
00054001  
  
00055001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIFDDXP	00	100	IHIFDD	00						
ENTRY ADDRESS		00								
TOTAL LENGTH		100								
***IHIFDD DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
AUTHORIZATION CODE IS			0.							

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHIFDI)  
IDENTIFY IHIFDIXP('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIFDIXP 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHIFDI(R)

00056001  
00057001  
  
00058001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIFDIXP	00	A0	IHIFDI	00						

ENTRY ADDRESS

00

TOTAL LENGTH

A0

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHIFII)  
IDENTIFY IHIFIIXP('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIFIIXP 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHIFII(R)

00059001  
00060001  
  
00061001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIFIIXP	00	C0								

ENTRY ADDRESS

00

TOTAL LENGTH

C0

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHIFRI)  
IDENTIFY IHIFRIXP('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIFRIXP 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHIFRI(R)

00062001  
00063001  
  
00064001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIFRIXP	00	A0	IHIFRI	00						

ENTRY ADDRESS

00

TOTAL LENGTH

A0

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0461  
IEW0461

INCLUDE OBJECT(IHIFRR)  
IDENTIFY IHIFRRXP('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIFRRXP 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHIFRR(R)  
IHISLO  
IHISEX

00065001  
00066001  
  
00067001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIFRRXP	00	F8	IHIFRR	00						
ENTRY ADDRESS		00								
TOTAL LENGTH		F8								
***IHIFRR DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000		INCLUDE	OBJECT(IHIFSA)	00068001
IEW0000		IDENTIFY	IHIFSARA('360SLM532 V02 M01 ALGOL F LIBRARY')	00069001
IEW0670		IHIFSARA	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000		IDENTIFY	IHIFSARB('360SLM532 V02 M01 ALGOL F LIBRARY')	00070001
IEW0670		IHIFSARB	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000		ALIAS	IHIFSAIN	00071001
IEW0000		NAME	IHIFSA(R)	00072001
IEW0461	IHIDSTAB			
IEW0461	IHIENTIF			
IEW0461	IHIOROP			
IEW0461	IHIORCL			
IEW0461	IHIORNX			
IEW0461	IHIORCI			
IEW0461	IHIIOREV			
IEW0461	IHIIOROQ			
IEW0461	IHIIOREN			
IEW0461	IHIIORGP			
IEW0461	IHIIORCP			
IEW0461	IHIORER			
IEW0461	IHIERROR			

# MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIFSARA	00	E70								
IHIFSARB	E70	690	IHIFSAIN	DFC						
ENTRY ADDRESS		00								
TOTAL LENGTH		1500								
****IHIFSA DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHIFSAIN IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

# DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.



IEW0000	INCLUDE	OBJECT(IHIGPR)	00073001
IEW0000	IDENTIFY	IHIGPRTN('360SLM532 V02 M01 ALGOL F LIBRARY')	00074001
IEW0670	IHIGPRTN	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIGPRCL	00075001
IEW0000	ALIAS	IHIGPRGT	00076001
IEW0000	ALIAS	IHIGPRPT	00077001
IEW0000	NAME	IHIGPR(R)	00078001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIGPRTN	00	A60	IHIGPRPT	00	IHIGPROT	210	IHIGPRGT	3E4	IHIGPRIT	5C4
			IHIGPROP	740	IHIGPRCL	830				

ENTRY ADDRESS            00

TOTAL LENGTH            A60

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

\*\*\*\*IHIGPRPT IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIGPRGT IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIGPRCL IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS       0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000	INCLUDE	OBJECT(IHIIAR)	00079001
IEW0000	IDENTIFY	IHIIARTN('360SLM532 V02 M01 ALGOL F LIBRARY')	00080001
IEW0670	IHIIARTN	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIIARRT	00081001
IEW0000	ALIAS	IHIIARRY	00082001
IEW0000	NAME	IHIIAR(R)	00083001
IEW0461	IHIIOREV		
IEW0461	IHIIDEAI		

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIIARTN	00	B8	IHIIARRT	00	IHIIARRY	3C				
ENTRY ADDRESS		00								
TOTAL LENGTH		B8								
****IHIIAR DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHIIARRY IS AN ALIAS FOR THIS MEMBER										
****IHIIARRT IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.  
IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0000  
IEW0461  
IEW0461

INCLUDE OBJECT(IHIIBA)  
IDENTIFY IHIIBARR('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIIBARR 360SLM532 V02 M01 ALGOL F LIBRARY  
ALIAS IHIIBARR  
NAME IHIIBA(R)  
IHIIOREV  
IHIIBOAR

00084001  
00085001  
  
00086001  
00087001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIIBARR	00	68								

ENTRY ADDRESS

00

TOTAL LENGTH

68

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

\*\*\*IHIIBARR IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000	INCLUDE	OBJECT(IHIIBO)	00088001
IEW0000	IDENTIFY	IHIIBOOL('360SLM532 V02 M01 ALGOL F LIBRARY')	00089001
IEW0670	IHIIBOOL	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIIBOAR	00090001
IEW0000	ALIAS	IHIIBOOL	00091001
IEW0000	NAME	IHIIBO(R)	00092001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIIBOOL	00	288	IHIIBOAR	4A						

ENTRY ADDRESS            00

TOTAL LENGTH            288

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

\*\*\*\*IHIIBOOL    IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIIBOAR    IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS       0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000	INCLUDE	OBJECT(IHIIDE)	00093001
IEW0000	IDENTIFY	IHIIDECM('360SLM532 V02 M01 ALGOL F LIBRARY')	00094001
IEW0670	IHIIDECM	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIIDEAI	00095001
IEW0000	ALIAS	IHIIDEII	00096001
IEW0000	ALIAS	IHIIDEIR	00097001
IEW0000	NAME	IHIIDE(R)	00098001
IEW0461	IHIPTTAB		

# MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIIDECM	00	6D8	IHIIDEAI	00	IHIIDEII	44	IHIIDEIR	88		

ENTRY ADDRESS            00

TOTAL LENGTH            6D8

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

\*\*\*\*IHIIDEIR IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIIDEII IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIIDEAI IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS        0.

# DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000	INCLUDE	OBJECT(IHIIOR)	00099001
IEW0000	IDENTIFY	IHIIORTN('360SLM532 V02 M01 ALGOL F LIBRARY')	00100001
IEW0670	IHIIORTN	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIIOREN	00101001
IEW0000	ALIAS	IHIIOREV	00102001
IEW0000	ALIAS	IHIIORNX	00103001
IEW0000	ALIAS	IHIIOROP	00104001
IEW0000	NAME	IHIIOR(R)	00105001

# MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIIORTN	00	D70								
			IHIIOROQ	00	IHIIOROP	E6	IHIIORNX	4B4	IHIIORCL	6FC
			IHIIORCP	8A6	IHIIORGP	9A8	IHIIORCN	9AC	IHIIOREN	A0C
			IHIIOREV	A8A	IHIIORED	B20	IHIIORCI	BF8	IHIIORER	C7C

ENTRY ADDRESS            00

TOTAL LENGTH            D70

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

\*\*\*\*IHIIOROP IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIIORNX IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIIOREV IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIIOREN IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS            0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0000

INCLUDE OBJECT(IHIISY)  
IDENTIFY IHIISYMB('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIISYMB 360SLM532 V02 M01 ALGOL F LIBRARY  
ALIAS IHIISYMB  
NAME IHIISY(R)

00106001  
00107001  
  
00108001  
00109001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIISYMB	00	150								
ENTRY ADDRESS		00								
TOTAL LENGTH		150								
****IHIISY DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHIISYMB IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY  
IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHILAT)  
IDENTIFY IHILATAN('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHILATAN 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHILAT(R)

00110001  
00111001  
  
00112001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHILATAN	00	158	IHILAT	00						

ENTRY ADDRESS

00

TOTAL LENGTH

158

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.



IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHILEX)  
IDENTIFY IHILEXPT('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHILEXPT 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHILEX(R)

00113001  
00114001  
  
00115001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHILEXPT	00	1E0	IHILEX	00						

ENTRY ADDRESS

00

TOTAL LENGTH

1E0

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHILLO)  
IDENTIFY IHILLOGM('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHILLOGM 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHILLO(R)

00116001  
00117001  
  
00118001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHILLOGM	00	158	IHILLO	00						

ENTRY ADDRESS

00

TOTAL LENGTH

158

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0000  
IEW0000  
IEW0461

INCLUDE OBJECT(IHILOR)  
IDENTIFY IHILOREA('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHILOREA 360SLM532 V02 M01 ALGOL F LIBRARY  
ALIAS IHILORAR  
ALIAS IHILOREL  
NAME IHILOR(R)  
IHIPTTAB

00119001  
00120001  
  
00121001  
00122001  
00123001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHILOREA	00	330	IHILORAR	00	IHILOREL	40				

ENTRY ADDRESS 00

TOTAL LENGTH 330

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

\*\*\*\*IHILOREL IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHILORAR IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.  
IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000	INCLUDE	OBJECT(IHILSC)	00124001
IEW0000	IDENTIFY	IHILSCSN('360SLM532 V02 M01 ALGOL F LIBRARY')	00125001
IEW0670	IHILSCSN	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHILSCC	00126001
IEW0000	ALIAS	IHILSCS	00127001
IEW0000	NAME	IHILSC(R)	00128001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHILSCSN	00	1B0	IHILSCC	00	IHILSCS	3A				
ENTRY ADDRESS		00								
TOTAL LENGTH		1B0								
****IHILSC DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHILSCS IS AN ALIAS FOR THIS MEMBER										
****IHILSCC IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHILSQ)  
IDENTIFY IHILSQRT('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHILSQRT 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHILSQ(R)

00129001  
00130001  
  
00131001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHILSQRT	00	A8	IHILSQ	00						

ENTRY ADDRESS

00

TOTAL LENGTH

A8

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000	INCLUDE	OBJECT(IHIOAR)	00132001
IEW0000	IDENTIFY	IHIOARRY('360SLM532 V02 M01 ALGOL F LIBRARY')	00133001
IEW0670	IHIOARRY	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIOARRY	00134001
IEW0000	NAME	IHIOAR(R)	00135001
IEW0461	IHIIOREV		
IEW0461	IHISORAR		
IEW0461	IHILORAR		

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIOARRY	00	B0								
ENTRY ADDRESS			00							
TOTAL LENGTH			B0							
****IHIOAR DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHIOARRY IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0000  
IEW0461  
IEW0461

INCLUDE OBJECT(IHIOBA)  
IDENTIFY IHIOBARR('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHIOBARR 360SLM532 V02 M01 ALGOL F LIBRARY  
ALIAS IHIOBARR  
NAME IHIOAR(R)  
IHIOREV  
IHIOBOAR

00136001  
00137001  
  
00138001  
00139001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIOBARR	00	68								
ENTRY ADDRESS		00								
TOTAL LENGTH		68								
****IHIOAR NOW REPLACED IN DATA SET										
****IHIOBARR IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS		0.								

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.  
IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000	INCLUDE	OBJECT(IHIOBO)	00140001
IEW0000	IDENTIFY	IHIOBOOL('360SLM532 V02 M01 ALGOL F LIBRARY')	00141001
IEW0670	IHIOBOOL	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIOBOAR	00142001
IEW0000	ALIAS	IHIOBOOL	00143001
IEW0000	NAME	IHIOBO(R)	00144001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIOBOOL	00	1C8	IHIOBOAR	52						

ENTRY ADDRESS            00

TOTAL LENGTH            1C8

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

\*\*\*\*IHIOBOOL IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHIOBOAR IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS       0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.



IEW0000	INCLUDE	OBJECT(IHIOIN)	00145001
IEW0000	IDENTIFY	IHIOINTE('360SLM532 V02 M01 ALGOL F LIBRARY')	00146001
IEW0670	IHIOINTE	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIOINAR	00147001
IEW0000	ALIAS	IHIOINTG	00148001
IEW0000	NAME	IHIOIN(R)	00149001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIOINTE	00	1F8	IHIOINAR	00	IHIOINTG	40				
ENTRY ADDRESS		00								
TOTAL LENGTH		1F8								
****IHIOIN DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHIOINTG IS AN ALIAS FOR THIS MEMBER										
****IHIOINAR IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000	INCLUDE	OBJECT(IHIOST)	00150001
IEW0000	IDENTIFY	IHIOSTRG('360SLM532 V02 M01 ALGOL F LIBRARY')	00151001
IEW0670	IHIOSTRG	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIOSTRG	00152001
IEW0000	NAME	IHIOST(R)	00153001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIOSTRG	00	148								
ENTRY ADDRESS		00								
TOTAL LENGTH		148								
****IHIOST DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHIOSTRG IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000	INCLUDE	OBJECT(IHIOSY)	00154001
IEW0000	IDENTIFY	IHIOSYMB('360SLM532 V02 M01 ALGOL F LIBRARY')	00155001
IEW0670	IHIOSYMB	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIOSYMB	00156001
IEW0000	NAME	IHIOSY(R)	00157001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIOSYMB	00	138								

ENTRY ADDRESS            00

TOTAL LENGTH            138

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

\*\*\*\*IHIOSYMB IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS       0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0000  
IEW0461  
IEW0461

INCLUDE OBJECT(IHIOTA)  
IDENTIFY IHOTARR('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHOTARR 360SLM532 V02 M01 ALGOL F LIBRARY  
ALIAS IHOTARR  
NAME IHOTARR(R)  
IHIOREV  
IHIOINAR

00158001  
00159001  
  
00160001  
00161001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHOTARR	00	98								

ENTRY ADDRESS

00

TOTAL LENGTH

98

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

\*\*\*IHOTARR IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0461 WARNING - SYMBOL PRINTED IS AN UNRESOLVED EXTERNAL REFERENCE; NCAL WAS SPECIFIED, OR THE REFERENCE WAS MARKED FOR RESTRICTED NO-CALL OR NEVERCALL.

IEW0000	INCLUDE	OBJECT(IHIPTT)	00162001
IEW0000	IDENTIFY	IHIPTTAB('360SLM532 V02 M01 ALGOL F LIBRARY')	00163001
IEW0670	IHIPTTAB	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHIPTTAB	00164001
IEW0000	NAME	IHIPTT(R)	00165001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHIPTTAB	00	108								
ENTRY ADDRESS		00								
TOTAL LENGTH		108								
****IHIPTT DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHIPTTAB IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHISAT)  
IDENTIFY IHISATAN('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHISATAN 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHISAT(R)

00166001  
00167001  
  
00168001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHISATAN	00	E0	IHISAT	00						

ENTRY ADDRESS

00

TOTAL LENGTH

E0

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHISEX)  
IDENTIFY IHISEXPT('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHISEXPT 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHISEX(R)

00169001  
00170001  
  
00171001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHISEXPT	00	138	IHISEX	00						

ENTRY ADDRESS

00

TOTAL LENGTH

138

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

00172001  
00173001



IEW0000	INCLUDE	OBJECT(IHISOR)	00174001
IEW0000	IDENTIFY	IHISOREA('360SLM532 V02 M01 ALGOL F LIBRARY')	00175001
IEW0670	IHISOREA	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHISORAR	00176001
IEW0000	ALIAS	IHISOREL	00177001
IEW0000	NAME	IHISOR(R)	00178001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHISOREA	00	380	IHISORAR	00	IHISOREL	40				
ENTRY ADDRESS		00								
TOTAL LENGTH		380								
****IHISOR DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET										
****IHISOREL IS AN ALIAS FOR THIS MEMBER										
****IHISORAR IS AN ALIAS FOR THIS MEMBER										
AUTHORIZATION CODE IS 0.										

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000	INCLUDE	OBJECT(IHISSC)	00179001
IEW0000	IDENTIFY	IHISSCSN('360SLM532 V02 M01 ALGOL F LIBRARY')	00180001
IEW0670	IHISSCSN	360SLM532 V02 M01 ALGOL F LIBRARY	
IEW0000	ALIAS	IHISSCS	00181001
IEW0000	ALIAS	IHISSCC	00182001
IEW0000	NAME	IHISSC(R)	00183001

MODULE MAP

CONTROL SECTION			ENTRY							
NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHISSCSN	00	140	IHISSCC	00	IHISSCS	3A				

ENTRY ADDRESS            00

TOTAL LENGTH            140

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

\*\*\*\*IHISSCC   IS AN ALIAS FOR THIS MEMBER

\*\*\*\*IHISSCS   IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS       0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000

INCLUDE OBJECT(IHISSQ)  
IDENTIFY IHISSQRT('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHISSQRT 360SLM532 V02 M01 ALGOL F LIBRARY  
NAME IHISSQ(R)

00184001  
00185001  
  
00186001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHISSQRT	00	C8	IHISSQ	00						

ENTRY ADDRESS

00

TOTAL LENGTH

C8

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

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

IEW0000  
IEW0000  
IEW0670  
IEW0000  
IEW0000

INCLUDE OBJECT(IHISYS)  
IDENTIFY IHISYSCT('360SLM532 V02 M01 ALGOL F LIBRARY')  
IHISYSCT 360SLM532 V02 M01 ALGOL F LIBRARY  
ALIAS IHISYSCT  
NAME IHISYS(R)

00187001  
00188001  
  
00189001  
00190001

MODULE MAP

CONTROL SECTION

ENTRY

NAME	ORIGIN	LENGTH	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION	NAME	LOCATION
IHISYSCT	00	780								

ENTRY ADDRESS

00

TOTAL LENGTH

780

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

\*\*\*\*IHISYSCT IS AN ALIAS FOR THIS MEMBER

AUTHORIZATION CODE IS 0.

DIAGNOSTIC MESSAGE DIRECTORY

IEW0670 THE SPECIFIED IDENTIFY DATA HAS BEEN ADDED TO THE IDR FOR THE CONTROL SECTION NAME PRINTED.

