

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				2 *****	
				3 *	
				4 * TRTE basic instruction tests	
				5 *	
				6 *****	
				7 *	
				8 * This program tests proper functioning of the TRTE instructions.	
				9 * Specification Exceptions are not tested.	
				10 *	
				11 * PLEASE NOTE that the tests are very SIMPLE TESTS designed to catch	
				12 * obvious coding errors. None of the tests are thorough. They are	
				13 * NOT designed to test all aspects of the instruction.	
				14 *	
				15 * NOTE: This test is based on the CLCL-et-al Test but modified to	
				16 * only test the TRTE instruction. -- James Wekel October 2022	
				17 *	
				18 *****	
				19 *	
				20 * Example Hercules Testcase:	
				21 *	
				22 *	
				23 * *Testcase TRTE-01-basic (Test TRTE instructions)	
				24 *	
				25 * # -----	
				26 * # This tests only the basic function of the TRTE instruction.	
				27 * # Specification Exceptions are NOT tested.	
				28 * # -----	
				29 *	
				30 * mainsize 16	
				31 * numcpu 1	
				32 * sysclear	
				33 * archlvl z/Arch	
				34 * loadcore "\$(testpath)/TRTE-01-basic.core" 0x0	
				35 * runtest 1	
				36 * *Done	
				37 *	
				38 *	
				39 *****	
00000000		00000000	000E3F59	41 TRTE1TST START 0	
		00000000		42 USING TRTE1TST,R0	Low core addressability
00000000		00000000	000001A0	44 ORG TRTE1TST+X'1A0'	z/Architecure RESTART PSW
000001A0	00000001 80000000			45 DC X'0000000180000000'	
000001A8	00000000 00000200			46 DC AD(BEGIN)	
000001B0		000001B0	000001D0	48 ORG TRTE1TST+X'1D0'	z/Architecure PROGRAM CHECK PSW
000001D0	00020001 80000000			49 DC X'0002000180000000'	
000001D8	00000000 0000DEAD			50 DC AD(X'DEAD')	
000001E0		000001E0	00000200	52 ORG TRTE1TST+X'200'	Start of actual test program...

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				54 *****
				55 * The actual "TRTE1TST" program itself...
				56 *****
				57 *
				58 * Architecture Mode: z/Arch
				59 * Register Usage:
				60 *
				61 * R0 (work)
				62 * R1 TRTE - Function-Code Table Address
				63 * R2 TRTE - First-Operand Address
				64 * R3 TRTE - First-Operand Length
				65 * R4 TRTE - Function-Code
				66 * R5 Testing control table - base current entry
				67 * R6-R7 (work)
				68 * R8 First base register
				69 * R9 Second base register
				70 * R10-R13 (work)
				71 * R14 Subroutine call
				72 * R15 Secondary Subroutine call or work
				73 *
				74 *****
00000200		00000200		76 USING BEGIN,R8 FIRST Base Register
00000200		00001200		77 USING BEGIN+4096,R9 SECOND Base Register
00000200	0580			79 BEGIN BALR R8,0 Initalize FIRST base register
00000202	0680			80 BCTR R8,0 Initalize FIRST base register
00000204	0680			81 BCTR R8,0 Initalize FIRST base register
00000206	4190 8800		00000800	83 LA R9,2048(,R8) Initalize SECOND base register
0000020A	4190 9800		00000800	84 LA R9,2048(,R9) Initalize SECOND base register
				86 *****
				87 * Run the test(s)...
				88 *****
0000020E	45E0 8302		00000502	90 BAL R14,TEST01 Test TRTE instruction
				92 *****
				93 * Test for normal or unexpected test completion...
				94 *****
00000212	95FC 8200		00000400	96 CLI TESTNUM,X'FC' Did we end on expected test?
00000216	4770 83F0		000005F0	97 BNE FAILTEST No?! Then FAIL the test!
0000021A	9503 8201		00000401	99 CLI SUBTEST,X'03' Did we end on expected SUB-test?
0000021E	4770 83F0		000005F0	100 BNE FAILTEST No?! Then FAIL the test!
00000222	47F0 83D8		000005D8	102 B EOJ Yes, then normal completion!

00000402	00000402	00000502	114	ORG	*+X'100'
----------	----------	----------	-----	-----	----------

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					116 *****	
					117 * TEST01	Test TRTE instruction
					118 *****	
00000502	9201	8200		00000400	120 TEST01 MVI	TESTNUM,X'01'
00000506	4150	83F8		000005F8	122	LA R5,TRTECTL
0000050A			00000000		123	USING TRTETEST,R5
						Point R5 --> testing control table
						What each table entry looks like
			0000050A	00000001	125 TST1LOOP EQU	*
0000050A	4360	5000		00000000	126	IC R6,TNUM
0000050E	4260	8200		00000400	127	STC R6,TESTNUM
					128 *	
					129 **	Initialize operand data (move data to testing address)
					130 *	
00000512	58A0	5018		00000018	131	L R10,OP1WHERE
00000516	58B0	5008		00000008	132	L R11,OP1LEN
0000051A	50B0	501C		0000001C	133	ST R11,OP1WLEN
0000051E	5860	5004		00000004	134	L R6,OP1DATA
00000522	5870	5008		00000008	135	L R7,OP1LEN
00000526	0EA6				136	MVCL R10,R6
					137 *	
00000528	58A0	5014		00000014	138	L R10,OP2WHERE
0000052C	58B0	5010		00000010	139	L R11,OP2LEN
00000530	5860	500C		0000000C	140	L R6,OP2DATA
00000534	5870	5010		00000010	141	L R7,OP2LEN
00000538	0EA6				142	MVCL R10,R6
					144 *	
					145 **	Execute TRTE instruction and check for expected condition code
					146 *	
0000053A	9814	5014		00000014	147	LM R1,R4,OPSWHERE
						get TRTE input
0000053E	1B77				149	SR R7,R7
00000540	4370	5003		00000003	150	IC R7,M3
00000544	4270	8356		00000556	151	STC R7,TRTEMOD+2
						DYNAMICALLY MODIFIED CODE
00000548	58B0	5024		00000024	153	L R11,FAILMASK
0000054C	89B0	0004		00000004	154	SLL R11,4
						(failure CC)
						(shift to BC instr CC position)
00000550	9200	8201		00000401	156	MVI SUBTEST,X'00'
00000554	B9BF	0024			157 TRTEMOD	TRTE R2,R4,0
						(primary TRT)
						Start with TRTE and m3=0
00000558	9014	83A8		000005A8	159	STM R1,R4,SAVETRT
0000055C	44B0	839E		0000059E	160	EX R11,TRTEBC
00000560	4710	8354		00000554	161	BC B'0001',TRTEMOD
						cc=3, not finished

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)					15 Oct 2022 14:46:26			Page	5
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT							
					163 *							
					164 **	Verify R2,R3,R4 contain (or still contain!) expected values						
					165 *							
00000564	98AC	5028		00000028	166	LM	R10,R12,ENDREGS					
00000568	9201	8201		00000401	168	MVI	SUBTEST,X'01'		(R2 result - op1 found addr)			
0000056C	152A				169	CLR	R2,R10		R2 correct?			
0000056E	4770	8398		00000598	170	BNE	TRTEFAIL		No, FAILTEST!			
00000572	9202	8201		00000401	172	MVI	SUBTEST,X'02'		(R3 result - op1 remaining len)			
00000576	153B				173	CLR	R3,R11		R3 correct			
00000578	4770	8398		00000598	174	BNE	TRTEFAIL		No, FAILTEST!			
0000057C	9203	8201		00000401	176	MVI	SUBTEST,X'03'		(R4 result - FC code)			
00000580	154C				177	CLR	R4,R12		R4 correct			
00000582	4770	8398		00000598	178	BNE	TRTEFAIL		No, FAILTEST!			
00000586	4150	5034		00000034	180	LA	R5,TRTENEXT		Go on to next table entry			
0000058A	D503	83F4	5000	000005F4	181	CLC	=F'0',0(R5)		End of table?			
00000590	4770	830A		0000050A	182	BNE	TST1LOOP		No, loop...			
00000594	47F0	839C		0000059C	183	B	TRTEDONE		Done! (success!)			
00000598	41E0	83F0		000005F0	185	TRTEFAIL	LA	R14,FAILTEST		Unexpected results!		
0000059C	07FE				186	TRTEDONE	BR	R14		Return to caller or FAILTEST		
0000059E	4700	8398		00000598	188	TRTEBC	BC	0,TRTEFAIL		(fail if unexpected condition code)		
000005A8	00000000 00000000				190	SAVETRT	DC	4D'0'		(saved R1/R4 from TRT results)		
					192	DROP	R5					
					193	DROP	R15					
000005C8					194	USING	BEGIN,R8					

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				196 *****	
				197 * Normal completion or Abnormal termination PSWs	
				198 *****	
000005C8	00020001 80000000			200 EOJPSW DC 0D'0',X'0002000180000000',AD(0)	
000005D8	B2B2 83C8		000005C8	202 EOJ LPSWE EOJPSW	Normal completion
000005E0	00020001 80000000			204 FAILPSW DC 0D'0',X'0002000180000000',AD(X'BAD')	
000005F0	B2B2 83E0		000005E0	206 FAILTEST LPSWE FAILPSW	Abnormal termination
				208 *****	
				209 * Working Storage	
				210 *****	
000005F4				212 LTORG ,	Literals pool
000005F4	00000000			213 =F'0'	
		00000400	00000001	215 K EQU 1024	One KB
		00001000	00000001	216 PAGE EQU (4*K)	Size of one page
		00010000	00000001	217 K64 EQU (64*K)	64 KB
		00100000	00000001	218 MB EQU (K*K)	1 MB

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
		00000000	000E3F59	220 TRTE1TST CSECT ,	
				222 *****	
				223 * TRTETEST DSECT	
				224 *****	
				226 TRTETEST DSECT ,	
00000000	00			227 TNUM DC X'00'	TRTE table Number
00000001	00			228 DC X'00'	
00000002	00			229 DC X'00'	
00000003	00			230 M3 DC X'00'	M3 byte stored into TRTE instruction
00000004	00000000			232 OP1DATA DC A(0)	Pointer to Operand-1 data
00000008	00000000			233 OP1LEN DC F'0'	How much data is there - 1
0000000C	00000000			234 OP2DATA DC A(0)	Pointer to FC table data
00000010	00000000			235 OP2LEN DC F'0'	How much data is there - FC Table
		00000014	00000001	237 OPSWHERE EQU *	
00000014	00000000			238 OP2WHERE DC A(0)	Where FC Table data should be placed
00000018	00000000			239 OP1WHERE DC A(0)	Where Operand-1 data should be placed
0000001C	00000000			240 OP1WLEN DC F'0'	How much data is there - 1
00000020	00000000			241 DC A(0)	pollute - found FC
00000024	00000000			243 FAILMASK DC A(0)	Failure Branch on Condition mask
				245 *	Ending register values
00000028	00000000			246 ENDREGS DC A(0)	Operand 1 address
0000002C	00000000			247 DC A(0)	Operand 1 length
00000030	00000000			248 DC A(0)	Function Code
		00000034	00000001	250 TRTENEXT EQU *	Start of next table entry...
		AABBCCDD	00000001	252 REG2PATT EQU X'AABBCCDD'	Polluted Register pattern
		000000DD	00000001	253 REG2LOW EQU X'DD'	(last byte above)

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				255 *****	
				256 * TRTE Testing Control tables (ref: TRTETEST DSECT)	
				257 *****	
		00000000	000E3F59	259 TRTE1TST CSECT ,	
000005F8				260 PRINT DATA	
				261 TRTECTL DC 0A(0) start of table	
				263 *****	
				264 * tests with M3: A=0,F=0,L=0, reserved=0 (0)	
				265 * FC Table = 1 byte	
				266 *****	
000005F8				268 M0T1 DS 0F	
000005F8	01			269 DC X'01'	Test Num
000005F9	0000			270 DC X'00',X'00'	
000005FB	00			271 DC X'00'	M3: A=0,F=0,L=0
000005FC	00001438	00000001		272 DC A(TRTOP10),A(001)	Source - Op 1 & length
00000604	00003138	00000100		273 DC A(TRTOP20),A(256)	Source - FC Table & length
				274 *	Target -
0000060C	00110000	00210000		275 DC A(1*MB+(1*K64)),A(2*MB+(1*K64)),A(0)	FC, Op1, Op1L
00000614	00000000				
00000618	AABBCCDD			276 DC A(REG2PATT)	
0000061C	00000007			277 DC A(7) CC0	
00000620	00210001	00000000		278 DC A(2*MB+(1*K64)+001),A(000),A(0)	
00000628	00000000				
0000062C				280 M0T2 DS 0F	
0000062C	02			281 DC X'02'	Test Num
0000062D	0000			282 DC X'00',X'00'	
0000062F	00			283 DC X'00'	M3: A=0,F=0,L=0
00000630	00001438	00000002		284 DC A(TRTOP10),A(002)	Source - Op 1 & length
00000638	00003138	00000100		285 DC A(TRTOP20),A(256)	Source - FC Table & length
				286 *	Target -
00000640	00120000	00220000		287 DC A(MB+(2*K64)),A(2*MB+(2*K64)),A(0)	FC, Op1, Op1L
00000648	00000000				
0000064C	AABBCCDD			288 DC A(REG2PATT)	
00000650	00000007			289 DC A(7) CC0	
00000654	00220002	00000000		290 DC A(2*MB+(2*K64)+002),A(000),A(0)	
0000065C	00000000				
00000660				292 M0T3 DS 0F	
00000660	03			293 DC X'03'	Test Num
00000661	0000			294 DC X'00',X'00'	
00000663	00			295 DC X'00'	M3: A=0,F=0,L=0
00000664	00001438	00000004		296 DC A(TRTOP10),A(004)	Source - Op 1 & length
0000066C	00003138	00000100		297 DC A(TRTOP20),A(256)	Source - FC Table & length
				298 *	Target -
00000674	00130000	00230000		299 DC A(MB+(3*K64)),A(2*MB+(3*K64)),A(0)	FC, Op1, Op1L
0000067C	00000000				
00000680	AABBCCDD			300 DC A(REG2PATT)	
00000684	00000007			301 DC A(7) CC0	
00000688	00230004	00000000		302 DC A(2*MB+(3*K64)+004),A(000),A(0)	
00000690	00000000				

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
00000730				340 M0T7	DS	0F	
00000730	07			341	DC	X'07'	Test Num
00000731	0000			342	DC	X'00',X'00'	
00000733	00			343	DC	X'00'	M3: A=0,F=0,L=0
00000734	00001638	00000100		344	DC	A(TRTOP1F0),A(256)	Source - Op 1 & length
0000073C	00023338	00000100		345	DC	A(TRTOP2F0),A(256)	Source - FC Table & length
				346 *			Target -
00000744	00170000	0026FFF4		347	DC	A(MB+(7*K64)),A(2*MB+(7*K64)-12),A(0)	FC, Op1, Op1L
0000074C	00000000						
00000750	AABBCCDD			348	DC	A(REG2PATT)	
00000754	0000000A			349	DC	A(10) CC1 or CC3	
00000758	002700F3	00000001		350	DC	A(2*MB+(7*K64)-12+255),A(256-255),XL4'F0'	
00000760	000000F0						
00000764				352 M0T8	DS	0F	
00000764	08			353	DC	X'08'	Test Num
00000765	0000			354	DC	X'00',X'00'	
00000767	00			355	DC	X'00'	M3: A=0,F=0,L=0
00000768	00001538	00000100		356	DC	A(TRTOP111),A(256)	Source - Op 1 & length
00000770	00023238	00000100		357	DC	A(TRTOP211),A(256)	Source - FC Table & length
				358 *			Target -
00000778	0017FFE0	00280000		359	DC	A(MB+(8*K64)-32),A(2*MB+(8*K64)),A(0)	FC, Op1, Op1L
00000780	00000000						
00000784	AABBCCDD			360	DC	A(REG2PATT)	
00000788	0000000B			361	DC	A(11) CC1	
0000078C	00280011	000000EF		362	DC	A(2*MB+(8*K64)+X'11'),A(256-X'11'),XL4'11'	
00000794	00000011						
00000798				364 M0T9	DS	0F	
00000798	09			365	DC	X'09'	Test Num
00000799	0000			366	DC	X'00',X'00'	
0000079B	00			367	DC	X'00'	M3: A=0,F=0,L=0
0000079C	00001938	00000800		368	DC	A(TRT01L0),A(2048)	Source - Op 1 & length
000007A4	00003138	00000100		369	DC	A(TRTOP20),A(256)	Source - FC Table & length
				370 *			Target -
000007AC	00190000	00290000		371	DC	A(MB+(9*K64)),A(2*MB+(9*K64)),A(0)	FC, Op1, Op1L
000007B4	00000000						
000007B8	AABBCCDD			372	DC	A(REG2PATT)	
000007BC	00000007			373	DC	A(7) CC0	
000007C0	00290800	00000000		374	DC	A(2*MB+(9*K64)+2048),A(000),A(0)	
000007C8	00000000						

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				400 *****	
				401 * tests with M3: A=0,F=1,L=0, reserved=0 (4)	
				402 * FC Table = 2 bytes	
				403 *****	
00000834				405 M4T1 DS 0F	
00000834	41			406 DC X'41'	Test Num
00000835	0000			407 DC X'00',X'00'	
00000837	40			408 DC X'40'	M3: A=0,F=1,L=0
00000838	00001438	00000001		409 DC A(TRTOP10),A(001)	Source - Op 1 & length
00000840	00003138	00000200		410 DC A(TRTOP20),A(512)	Source - FC Table & length
				411 *	Target -
00000848	00310000	00410000		412 DC A(3*MB+(1*K64)),A(4*MB+(1*K64)),A(0)	FC, Op1, Op1L
00000850	00000000				
00000854	AABBCCDD			413 DC A(REG2PATT)	
00000858	00000007			414 DC A(7) CC0	
0000085C	00410001	00000000		415 DC A(4*MB+(1*K64)+001),A(000),A(0)	
00000864	00000000				
00000868				417 M4T2 DS 0F	
00000868	42			418 DC X'42'	Test Num
00000869	0000			419 DC X'00',X'00'	
0000086B	40			420 DC X'40'	M3: A=0,F=1,L=0
0000086C	00001438	00000002		421 DC A(TRTOP10),A(002)	Source - Op 1 & length
00000874	00003138	00000200		422 DC A(TRTOP20),A(512)	Source - FC Table & length
				423 *	Target -
0000087C	00320000	00420000		424 DC A(3*MB+(2*K64)),A(4*MB+(2*K64)),A(0)	FC, Op1, Op1L
00000884	00000000				
00000888	AABBCCDD			425 DC A(REG2PATT)	
0000088C	00000007			426 DC A(7) CC0	
00000890	00420002	00000000		427 DC A(4*MB+(2*K64)+002),A(000),A(0)	
00000898	00000000				
0000089C				429 M4T3 DS 0F	
0000089C	43			430 DC X'43'	Test Num
0000089D	0000			431 DC X'00',X'00'	
0000089F	40			432 DC X'40'	M3: A=0,F=1,L=0
000008A0	00001438	00000004		433 DC A(TRTOP10),A(004)	Source - Op 1 & length
000008A8	00003138	00000200		434 DC A(TRTOP20),A(512)	Source - FC Table & length
				435 *	Target -
000008B0	00340000	00440000		436 DC A(3*MB+(4*K64)),A(4*MB+(4*K64)),A(0)	FC, Op1, Op1L
000008B8	00000000				
000008BC	AABBCCDD			437 DC A(REG2PATT)	
000008C0	00000007			438 DC A(7) CC0	
000008C4	00440004	00000000		439 DC A(4*MB+(4*K64)+004),A(000),A(0)	
000008CC	00000000				

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				537 *****	
				538 * tests with M3: A=1,F=0,L=0, reserved=0 (8)	
				539 * FC Table : SIZE: 65,536 (2 BYTE ARGUMENT)	
				540 *	
				541 * Note: Op1 length must be a multiple of 2	
				542 *****	
00000A70				544 M8T1 DS 0F	
00000A70	81			545 DC X'81'	Test Num
00000A71	0000			546 DC X'00',X'00'	
00000A73	80			547 DC X'80'	M3: A=1,F=0,L=0,--=0
00000A74	00001438	00000002		548 DC A(TRTOP10),A(002)	Source - Op 1 & length
00000A7C	00003138	00010000		549 DC A(TRTOP20),A(K64)	Source - FC Table & length
				550 *	Target -
00000A84	00510000	00610000		551 DC A(5*MB+(1*K64)),A(6*MB+(1*K64)),A(0)	FC, Op1, Op1L
00000A8C	00000000				
00000A90	AABBCCDD			552 DC A(REG2PATT)	
00000A94	00000007			553 DC A(7) CC0	
00000A98	00610002	00000000		554 DC A(6*MB+(1*K64)+002),A(000),A(0)	
00000AA0	00000000				
00000AA4				556 M8T2 DS 0F	
00000AA4	82			557 DC X'82'	Test Num
00000AA5	0000			558 DC X'00',X'00'	
00000AA7	80			559 DC X'80'	M3: A=1,F=0,L=0,--=0
00000AA8	00001438	00000004		560 DC A(TRTOP10),A(004)	Source - Op 1 & length
00000AB0	00003138	00010000		561 DC A(TRTOP20),A(K64)	Source - FC Table & length
				562 *	Target -
00000AB8	00520000	00620000		563 DC A(5*MB+(2*K64)),A(6*MB+(2*K64)),A(0)	FC, Op1, Op1L
00000AC0	00000000				
00000AC4	AABBCCDD			564 DC A(REG2PATT)	
00000AC8	00000007			565 DC A(7) CC0	
00000ACC	00620004	00000000		566 DC A(6*MB+(2*K64)+004),A(000),A(0)	
00000AD4	00000000				
00000AD8				568 M8T3 DS 0F	
00000AD8	83			569 DC X'83'	Test Num
00000AD9	0000			570 DC X'00',X'00'	
00000ADB	80			571 DC X'80'	M3: A=1,F=0,L=0,--=0
00000ADC	00001438	00000008		572 DC A(TRTOP10),A(008)	Source - Op 1 & length
00000AE4	00003138	00010000		573 DC A(TRTOP20),A(K64)	Source - FC Table & length
				574 *	Target -
00000AEC	00530000	00630000		575 DC A(5*MB+(3*K64)),A(6*MB+(3*K64)),A(0)	FC, Op1, Op1L
00000AF4	00000000				
00000AF8	AABBCCDD			576 DC A(REG2PATT)	
00000AFC	00000007			577 DC A(7) CC0	
00000B00	00630008	00000000		578 DC A(6*MB+(3*K64)+008),A(000),A(0)	
00000B08	00000000				

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				676 *****	
				677 * tests with M3: A=1,F=0,L=1, reserved=0 (10)	
				678 * FC Table : SIZE: 256 (2 BYTE ARGUMENT)	
				679 * Function Code is 1 byte	
				680 * Limit arg to 255	
				681 *	
				682 * Note: Op1 length must be a multiple of 2	
				683 *****	
00000CAC				685 M10T1 DS 0F	
00000CAC	A1			686 DC X'A1'	Test Num
00000CAD	0000			687 DC X'00',X'00'	
00000CAF	A0			688 DC X'A0'	M3: A=1,F=0,L=1,--=0
00000CB0	00001438	00000002		689 DC A(TRTOP10),A(002)	Source - Op 1 & length
00000CB8	00003138	00000100		690 DC A(TRTOP20),A(256)	Source - FC Table & length
				691 *	Target -
00000CC0	00A00000	00B00000		692 DC A(10*MB+(0*K64)),A(11*MB+(0*K64)),A(0)	FC, Op1, Op1L
00000CC8	00000000				
00000CCC	AABBCCDD			693 DC A(REG2PATT)	
00000CD0	00000007			694 DC A(7) CC0	
00000CD4	00B00002	00000000		695 DC A(11*MB+(0*K64)+002),A(000),A(0)	
00000CDC	00000000				
00000CE0				697 M10T2 DS 0F	
00000CE0	A2			698 DC X'A2'	Test Num
00000CE1	0000			699 DC X'00',X'00'	
00000CE3	A0			700 DC X'A0'	M3: A=1,F=0,L=1,--=0
00000CE4	00001438	00000004		701 DC A(TRTOP10),A(004)	Source - Op 1 & length
00000CEC	00003138	00000100		702 DC A(TRTOP20),A(256)	Source - FC Table & length
				703 *	Target -
00000CF4	00A10000	00B10000		704 DC A(10*MB+(1*K64)),A(11*MB+(1*K64)),A(0)	FC, Op1, Op1L
00000CFC	00000000				
00000D00	AABBCCDD			705 DC A(REG2PATT)	
00000D04	00000007			706 DC A(7) CC0	
00000D08	00B10004	00000000		707 DC A(11*MB+(1*K64)+004),A(000),A(0)	
00000D10	00000000				
00000D14				709 M10T3 DS 0F	
00000D14	A3			710 DC X'A3'	Test Num
00000D15	0000			711 DC X'00',X'00'	
00000D17	A0			712 DC X'A0'	M3: A=1,F=0,L=1,--=0
00000D18	00001438	00000008		713 DC A(TRTOP10),A(008)	Source - Op 1 & length
00000D20	00003138	00000100		714 DC A(TRTOP20),A(256)	Source - FC Table & length
				715 *	Target -
00000D28	00A20000	00B20000		716 DC A(10*MB+(2*K64)),A(11*MB+(2*K64)),A(0)	FC, Op1, Op1L
00000D30	00000000				
00000D34	AABBCCDD			717 DC A(REG2PATT)	
00000D38	00000007			718 DC A(7) CC0	
00000D3C	00B20008	00000000		719 DC A(11*MB+(2*K64)+008),A(000),A(0)	
00000D44	00000000				

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
00000DE4				757 M10T7	DS	0F	
00000DE4	A7			758	DC	X'A7'	Test Num
00000DE5	0000			759	DC	X'00',X'00'	
00000DE7	A0			760	DC	X'A0'	M3: A=1,F=0,L=1,--=0
00000DE8	00001538	00000100		761	DC	A(TRTOP111),A(256)	Source - Op 1 & length
00000DF0	00023238	00000100		762	DC	A(TRTOP211),A(256)	Source - FC Table & length
				763 *			Target -
00000DF8	00A5FFE0	00B60000		764	DC	A(10*MB+(6*K64-32)),A(11*MB+(6*K64)),A(0)	FC, Op1, Op1L
00000E00	00000000						
00000E04	AABBCCDD			765	DC	A(REG2PATT)	
00000E08	0000000B			766	DC	A(11) CC1	
00000E0C	00B60010	000000F0		767	DC	A(11*MB+(6*K64)+X'10'),A(256-X'10'),XL4'11'	
00000E14	00000011						
00000E18				769 M10T8	DS	0F	
00000E18	A8			770	DC	X'A8'	Test Num
00000E19	0000			771	DC	X'00',X'00'	
00000E1B	A0			772	DC	X'A0'	M3: A=1,F=0,L=1,--=0
00000E1C	00001738	00000200		773	DC	A(TRTOP1F1),A(512)	Source - Op 1 & length
00000E24	00063A38	00000100		774	DC	A(TRTOP8F1),A(256)	Source - FC Table & length
				775 *			Target -
00000E2C	00A70000	00B70000		776	DC	A(10*MB+(7*K64)),A(11*MB+(7*K64)),A(0)	FC, Op1, Op1L
00000E34	00000000						
00000E38	AABBCCDD			777	DC	A(REG2PATT)	
00000E3C	0000000B			778	DC	A(11) CC1	
00000E40	00B701FE	00000002		779	DC	A(11*MB+(7*K64)+510),A(2),XL4'F1'	
00000E48	000000F1						
00000E4C				781 M10T9	DS	0F	
00000E4C	A9			782	DC	X'A9'	Test Num
00000E4D	0000			783	DC	X'00',X'00'	
00000E4F	A0			784	DC	X'A0'	M3: A=1,F=0,L=1,--=0
00000E50	00001938	00000800		785	DC	A(TRT01L0),A(2048)	Source - Op 1 & length
00000E58	00003138	00000100		786	DC	A(TRTOP20),A(256)	Source - FC Table & length
				787 *			Target -
00000E60	00A80000	00B80000		788	DC	A(10*MB+(8*K64)),A(11*MB+(8*K64)),A(0)	FC, Op1, Op1L
00000E68	00000000						
00000E6C	AABBCCDD			789	DC	A(REG2PATT)	
00000E70	00000007			790	DC	A(7) CC0	
00000E74	00B80800	00000000		791	DC	A(11*MB+(8*K64)+2048),A(0),XL4'00'	
00000E7C	00000000						

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				817 *****	
				818 * tests with M3: A=1,F=1,L=0, reserved=0 (12)	
				819 * FC Table : SIZE: 131,072 (2 BYTE ARGUMENT)	
				820 * Function Code is 2 bytes	
				821 *	
				822 * Note: Op1 length must be a multiple of 2	
				823 *****	
00000EE8				825 M12T1 DS 0F	
00000EE8	C1			826 DC X'C1'	Test Num
00000EE9	0000			827 DC X'00',X'00'	
00000EEB	C0			828 DC X'C0'	M3: A=1,F=1,L=0,---=0
00000EEC	00001438	00000002		829 DC A(TRTOP10),A(002)	Source - Op 1 & length
00000EF4	00003138	00020000		830 DC A(TRTOP20),A(2*K64)	Source - FC Table & length
				831 *	Target -
00000EFC	00700000	00900000		832 DC A(7*MB+(0*K64)),A(9*MB+(0*K64)),A(0)	FC, Op1, Op1L
00000F04	00000000				
00000F08	AABBCCDD			833 DC A(REG2PATT)	
00000F0C	00000007			834 DC A(7) CC0	
00000F10	00900002	00000000		835 DC A(9*MB+(0*K64)+002),A(000),A(0)	
00000F18	00000000				
00000F1C				837 M12T2 DS 0F	
00000F1C	C2			838 DC X'C2'	Test Num
00000F1D	0000			839 DC X'00',X'00'	
00000F1F	C0			840 DC X'C0'	M3: A=1,F=1,L=0,---=0
00000F20	00001438	00000004		841 DC A(TRTOP10),A(004)	Source - Op 1 & length
00000F28	00003138	00020000		842 DC A(TRTOP20),A(2*K64)	Source - FC Table & length
				843 *	Target -
00000F30	00720000	00910000		844 DC A(7*MB+(2*K64)),A(9*MB+(1*K64)),A(0)	FC, Op1, Op1L
00000F38	00000000				
00000F3C	AABBCCDD			845 DC A(REG2PATT)	
00000F40	00000007			846 DC A(7) CC0	
00000F44	00910004	00000000		847 DC A(9*MB+(1*K64)+004),A(000),A(0)	
00000F4C	00000000				
00000F50				849 M12T3 DS 0F	
00000F50	C3			850 DC X'C3'	Test Num
00000F51	0000			851 DC X'00',X'00'	
00000F53	C0			852 DC X'C0'	M3: A=1,F=1,L=0,---=0
00000F54	00001438	00000008		853 DC A(TRTOP10),A(008)	Source - Op 1 & length
00000F5C	00003138	00020000		854 DC A(TRTOP20),A(2*K64)	Source - FC Table & length
				855 *	Target -
00000F64	00740000	00920000		856 DC A(7*MB+(4*K64)),A(9*MB+(2*K64)),A(0)	FC, Op1, Op1L
00000F6C	00000000				
00000F70	AABBCCDD			857 DC A(REG2PATT)	
00000F74	00000007			858 DC A(7) CC0	
00000F78	00920008	00000000		859 DC A(9*MB+(2*K64)+008),A(000),A(0)	
00000F80	00000000				

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				957 *****	
				958 * tests with M3: A=1,F=1,L=1, reserved=0 (14)	
				959 * FC Table : SIZE: 512 (2 BYTE ARGUMENT)	
				960 * Function Code is 2 byte	
				961 * Limit arg to 255	
				962 *	
				963 * Note: Op1 length must be a multiple of 2	
				964 *****	
00001124				966 M14T1 DS 0F	
00001124	E1			967 DC X'E1'	Test Num
00001125	0000			968 DC X'00',X'00'	
00001127	E0			969 DC X'E0'	M3: A=1,F=1,L=1,--=0
00001128	00001438	00000002		970 DC A(TRTOP10),A(002)	Source - Op 1 & length
00001130	00003138	00000200		971 DC A(TRTOP20),A(512)	Source - FC Table & length
				972 *	Target -
00001138	00B00000	00C00000		973 DC A(11*MB+(0*K64)),A(12*MB+(0*K64)),A(0)	FC, Op1, Op1L
00001140	00000000				
00001144	AABBCCDD			974 DC A(REG2PATT)	
00001148	00000007			975 DC A(7) CC0	
0000114C	00C00002	00000000		976 DC A(12*MB+(0*K64)+002),A(000),A(0)	
00001154	00000000				
00001158				978 M14T2 DS 0F	
00001158	E2			979 DC X'E2'	Test Num
00001159	0000			980 DC X'00',X'00'	
0000115B	E0			981 DC X'E0'	M3: A=1,F=1,L=1,--=0
0000115C	00001438	00000004		982 DC A(TRTOP10),A(004)	Source - Op 1 & length
00001164	00003138	00000200		983 DC A(TRTOP20),A(512)	Source - FC Table & length
				984 *	Target -
0000116C	00B10000	00C10000		985 DC A(11*MB+(1*K64)),A(12*MB+(1*K64)),A(0)	FC, Op1, Op1L
00001174	00000000				
00001178	AABBCCDD			986 DC A(REG2PATT)	
0000117C	00000007			987 DC A(7) CC0	
00001180	00C10004	00000000		988 DC A(12*MB+(1*K64)+004),A(000),A(0)	
00001188	00000000				
0000118C				990 M14T3 DS 0F	
0000118C	E3			991 DC X'E3'	Test Num
0000118D	0000			992 DC X'00',X'00'	
0000118F	E0			993 DC X'E0'	M3: A=1,F=1,L=1,--=0
00001190	00001438	00000008		994 DC A(TRTOP10),A(008)	Source - Op 1 & length
00001198	00003138	00000200		995 DC A(TRTOP20),A(512)	Source - FC Table & length
				996 *	Target -
000011A0	00B20000	00C20000		997 DC A(11*MB+(2*K64)),A(12*MB+(2*K64)),A(0)	FC, Op1, Op1L
000011A8	00000000				
000011AC	AABBCCDD			998 DC A(REG2PATT)	
000011B0	00000007			999 DC A(7) CC0	
000011B4	00C20008	00000000		1000 DC A(12*MB+(2*K64)+008),A(000),A(0)	
000011BC	00000000				

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
000011C0				1002 M14T4	DS	0F	
000011C0	E4			1003	DC	X'E4'	Test Num
000011C1	0000			1004	DC	X'00',X'00'	
000011C3	E0			1005	DC	X'E0'	M3: A=1,F=1,L=1,--=0
000011C4	00001438	00000100		1006	DC	A(TRTOP10),A(256)	Source - Op 1 & length
000011CC	00003138	00000200		1007	DC	A(TRTOP20),A(512)	Source - FC Table & length
				1008 *			Target -
000011D4	00B30000	00C30000		1009	DC	A(11*MB+(3*K64)),A(12*MB+(3*K64)),A(0)	FC, Op1, Op1L
000011DC	00000000						
000011E0	AABBCCDD			1010	DC	A(REG2PATT)	
000011E4	00000007			1011	DC	A(7) CC0	
000011E8	00C30100	00000000		1012	DC	A(12*MB+(3*K64)+256),A(000),A(0)	
000011F0	00000000						
000011F4				1014 M14T5	DS	0F	
000011F4	E5			1015	DC	X'E5'	Test Num
000011F5	0000			1016	DC	X'00',X'00'	
000011F7	E0			1017	DC	X'E0'	M3: A=1,F=1,L=1,--=0
000011F8	00001538	00000100		1018	DC	A(TRTOP111),A(256)	Source - Op 1 & length
00001200	00023438	00000200		1019	DC	A(TRTOP411),A(512)	Source - FC Table & length
				1020 *			Target -
00001208	00B40000	00C3FFF4		1021	DC	A(11*MB+(4*K64)),A(12*MB+(4*K64)-12),A(0)	FC, Op1, Op1L
00001210	00000000						
00001214	AABBCCDD			1022	DC	A(REG2PATT)	
00001218	0000000A			1023	DC	A(10) CC1 or CC3	
0000121C	00C40004	000000F0		1024	DC	A(12*MB+(4*K64)-12+X'10'),A(256-X'10'),XL4'11'	
00001224	00000011						
00001228				1026 M14T6	DS	0F	
00001228	E6			1027	DC	X'E6'	Test Num
00001229	0000			1028	DC	X'00',X'00'	
0000122B	E0			1029	DC	X'E0'	M3: A=1,F=1,L=1,--=0
0000122C	00001638	00000100		1030	DC	A(TRTOP1F0),A(256)	Source - Op 1 & length
00001234	00023638	00000200		1031	DC	A(TRTOP4F0),A(512)	Source - FC Table & length
				1032 *			Target -
0000123C	00B50000	00C4FFF4		1033	DC	A(11*MB+(5*K64)),A(12*MB+(5*K64)-12),A(0)	FC, Op1, Op1L
00001244	00000000						
00001248	AABBCCDD			1034	DC	A(REG2PATT)	
0000124C	0000000A			1035	DC	A(10) CC1 or CC3	
00001250	00C500F2	00000002		1036	DC	A(12*MB+(5*K64)-12+254),A(2),XL4'F0'	
00001258	000000F0						

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				1098 *****	
				1099 *	Check performance tests are valid.
				1100 *	tests with M3: A=1,F=1,L=0, reserved=0 (12)
				1101 *	FC Table : SIZE: 131,072 (2 BYTE ARGUMENT)
				1102 *	Function Code is 2 bytes
				1103 *	
				1104 *	Note: Op1 length must be a multiple of 2
				1105 *****	
00001360				1107 F12T8	DS 0F
00001360	F8			1108	DC X'F8' Test Num
00001361	0000			1109	DC X'00',X'00'
00001363	C0			1110	DC X'C0' M3: A=1,F=1,L=0,---=0
00001364	00001738	00000200		1111	DC A(TRTOP1F1),A(512) Source - Op 1 & length
0000136C	000C3D5A	00020000		1112	DC A(TRTOPCF1),A(2*K64) Source - FC Table & length
				1113 *	Target -
00001374	00710000	00910000		1114	DC A(7*MB+(1*K64)),A(9*MB+(1*K64)),A(0) FC, Op1, Op1L
0000137C	00000000				
00001380	AABBCCDD			1115	DC A(REG2PATT)
00001384	0000000B			1116	DC A(11) CC1
00001388	009101FE	00000002		1117	DC A(9*MB+(1*K64)+510),A(2),XL4'F1'
00001390	000000F1				
00001394				1119 F12T8A	DS 0F
00001394	F9			1120	DC X'F9' Test Num
00001395	0000			1121	DC X'00',X'00'
00001397	C0			1122	DC X'C0' M3: A=1,F=1,L=0,---=0
00001398	00001738	00000200		1123	DC A(TRTOP1F1),A(512) Source - Op 1 & length
000013A0	000C3D5A	00020000		1124	DC A(TRTOPCF1),A(2*K64) Source - FC Table & length
				1125 *	Target - FC, Op1, Op1L
000013A8	0072FF81	0092FF81		1126	DC A(7*MB+(3*K64)-127),A(9*MB+(3*K64)-127),A(0)
000013B0	00000000				
000013B4	AABBCCDD			1127	DC A(REG2PATT)
000013B8	0000000A			1128	DC A(10) CC1 or CC3
000013BC	0093017F	00000002		1129	DC A(9*MB+(3*K64)-127+510),A(2),XL4'F1'
000013C4	000000F1				
000013C8				1131 F12T11	DS 0F
000013C8	FB			1132	DC X'FB' Test Num
000013C9	0000			1133	DC X'00',X'00'
000013CB	C0			1134	DC X'C0' M3: A=1,F=1,L=0,---=0
000013CC	00002938	00000800		1135	DC A(TRTO1LF0),A(2048) Source - Op 1 & length
000013D4	000A3B5C	00020000		1136	DC A(TRTOPCF0),A(2*K64) Source - FC Table & length
				1137 *	Target -
000013DC	00760000	00960000		1138	DC A(7*MB+(6*K64)),A(9*MB+(6*K64)),A(0) FC, Op1, Op1L
000013E4	00000000				
000013E8	AABBCCDD			1139	DC A(REG2PATT)
000013EC	0000000B			1140	DC A(11) CC1
000013F0	009607FE	00000002		1141	DC A(9*MB+(6*K64)+2048-2),A(2),XL4'F0'
000013F8	000000F0				

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
					1158 *****
					1159 * TRTE op1 scan data...
					1160 *****
00001438	78125634	78125634			1162 TRTOP10 DC 64XL4'78125634' (CC0)
00001440	78125634	78125634			
00001448	78125634	78125634			
00001450	78125634	78125634			
00001458	78125634	78125634			
00001460	78125634	78125634			
00001468	78125634	78125634			
00001470	78125634	78125634			
00001478	78125634	78125634			
00001480	78125634	78125634			
00001488	78125634	78125634			
00001490	78125634	78125634			
00001498	78125634	78125634			
000014A0	78125634	78125634			
000014A8	78125634	78125634			
000014B0	78125634	78125634			
000014B8	78125634	78125634			
000014C0	78125634	78125634			
000014C8	78125634	78125634			
000014D0	78125634	78125634			
000014D8	78125634	78125634			
000014E0	78125634	78125634			
000014E8	78125634	78125634			
000014F0	78125634	78125634			
000014F8	78125634	78125634			
00001500	78125634	78125634			
00001508	78125634	78125634			
00001510	78125634	78125634			
00001518	78125634	78125634			
00001520	78125634	78125634			
00001528	78125634	78125634			
00001530	78125634	78125634			
00001538	78125634	78125634			1164 TRTOP111 DC 04XL4'78125634',X'00110000',59XL4'78125634' (CC1)
00001540	78125634	78125634			
00001548	00110000	78125634			
00001550	78125634	78125634			
00001558	78125634	78125634			
00001560	78125634	78125634			
00001568	78125634	78125634			
00001570	78125634	78125634			
00001578	78125634	78125634			
00001580	78125634	78125634			
00001588	78125634	78125634			
00001590	78125634	78125634			
00001598	78125634	78125634			
000015A0	78125634	78125634			
000015A8	78125634	78125634			
000015B0	78125634	78125634			
000015B8	78125634	78125634			
000015C0	78125634	78125634			
000015C8	78125634	78125634			

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	35
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
000015D0	78125634	78125634							
000015D8	78125634	78125634							
000015E0	78125634	78125634							
000015E8	78125634	78125634							
000015F0	78125634	78125634							
000015F8	78125634	78125634							
00001600	78125634	78125634							
00001608	78125634	78125634							
00001610	78125634	78125634							
00001618	78125634	78125634							
00001620	78125634	78125634							
00001628	78125634	78125634							
00001630	78125634	78125634							
00001638	78125634	78125634			1166 TRTOP1F0 DC	63XL4'78125634',X'000000F0'		(CC1)	
00001640	78125634	78125634							
00001648	78125634	78125634							
00001650	78125634	78125634							
00001658	78125634	78125634							
00001660	78125634	78125634							
00001668	78125634	78125634							
00001670	78125634	78125634							
00001678	78125634	78125634							
00001680	78125634	78125634							
00001688	78125634	78125634							
00001690	78125634	78125634							
00001698	78125634	78125634							
000016A0	78125634	78125634							
000016A8	78125634	78125634							
000016B0	78125634	78125634							
000016B8	78125634	78125634							
000016C0	78125634	78125634							
000016C8	78125634	78125634							
000016D0	78125634	78125634							
000016D8	78125634	78125634							
000016E0	78125634	78125634							
000016E8	78125634	78125634							
000016F0	78125634	78125634							
000016F8	78125634	78125634							
00001700	78125634	78125634							
00001708	78125634	78125634							
00001710	78125634	78125634							
00001718	78125634	78125634							
00001720	78125634	78125634							
00001728	78125634	78125634							
00001730	78125634	000000F0							
00001738	78125634	78125634			1168 TRTOP1F1 DC	127XL4'78125634',X'000000F1'		(CC1)	
00001740	78125634	78125634							
00001748	78125634	78125634							
00001750	78125634	78125634							
00001758	78125634	78125634							
00001760	78125634	78125634							
00001768	78125634	78125634							
00001770	78125634	78125634							
00001778	78125634	78125634							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	36
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00001780	78125634	78125634							
00001788	78125634	78125634							
00001790	78125634	78125634							
00001798	78125634	78125634							
000017A0	78125634	78125634							
000017A8	78125634	78125634							
000017B0	78125634	78125634							
000017B8	78125634	78125634							
000017C0	78125634	78125634							
000017C8	78125634	78125634							
000017D0	78125634	78125634							
000017D8	78125634	78125634							
000017E0	78125634	78125634							
000017E8	78125634	78125634							
000017F0	78125634	78125634							
000017F8	78125634	78125634							
00001800	78125634	78125634							
00001808	78125634	78125634							
00001810	78125634	78125634							
00001818	78125634	78125634							
00001820	78125634	78125634							
00001828	78125634	78125634							
00001830	78125634	78125634							
00001838	78125634	78125634							
00001840	78125634	78125634							
00001848	78125634	78125634							
00001850	78125634	78125634							
00001858	78125634	78125634							
00001860	78125634	78125634							
00001868	78125634	78125634							
00001870	78125634	78125634							
00001878	78125634	78125634							
00001880	78125634	78125634							
00001888	78125634	78125634							
00001890	78125634	78125634							
00001898	78125634	78125634							
000018A0	78125634	78125634							
000018A8	78125634	78125634							
000018B0	78125634	78125634							
000018B8	78125634	78125634							
000018C0	78125634	78125634							
000018C8	78125634	78125634							
000018D0	78125634	78125634							
000018D8	78125634	78125634							
000018E0	78125634	78125634							
000018E8	78125634	78125634							
000018F0	78125634	78125634							
000018F8	78125634	78125634							
00001900	78125634	78125634							
00001908	78125634	78125634							
00001910	78125634	78125634							
00001918	78125634	78125634							
00001920	78125634	78125634							
00001928	78125634	78125634							
00001930	78125634	000000F1							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)					15 Oct 2022 14:46:26		Page	37
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT						
00001938	98765432	98765432			1170 TRT01L0 DC 512XL4 '98765432'					(CC0)	
00001940	98765432	98765432									
00001948	98765432	98765432									
00001950	98765432	98765432									
00001958	98765432	98765432									
00001960	98765432	98765432									
00001968	98765432	98765432									
00001970	98765432	98765432									
00001978	98765432	98765432									
00001980	98765432	98765432									
00001988	98765432	98765432									
00001990	98765432	98765432									
00001998	98765432	98765432									
000019A0	98765432	98765432									
000019A8	98765432	98765432									
000019B0	98765432	98765432									
000019B8	98765432	98765432									
000019C0	98765432	98765432									
000019C8	98765432	98765432									
000019D0	98765432	98765432									
000019D8	98765432	98765432									
000019E0	98765432	98765432									
000019E8	98765432	98765432									
000019F0	98765432	98765432									
000019F8	98765432	98765432									
00001A00	98765432	98765432									
00001A08	98765432	98765432									
00001A10	98765432	98765432									
00001A18	98765432	98765432									
00001A20	98765432	98765432									
00001A28	98765432	98765432									
00001A30	98765432	98765432									
00001A38	98765432	98765432									
00001A40	98765432	98765432									
00001A48	98765432	98765432									
00001A50	98765432	98765432									
00001A58	98765432	98765432									
00001A60	98765432	98765432									
00001A68	98765432	98765432									
00001A70	98765432	98765432									
00001A78	98765432	98765432									
00001A80	98765432	98765432									
00001A88	98765432	98765432									
00001A90	98765432	98765432									
00001A98	98765432	98765432									
00001AA0	98765432	98765432									
00001AA8	98765432	98765432									
00001AB0	98765432	98765432									
00001AB8	98765432	98765432									
00001AC0	98765432	98765432									
00001AC8	98765432	98765432									
00001AD0	98765432	98765432									
00001AD8	98765432	98765432									
00001AE0	98765432	98765432									
00001AE8	98765432	98765432									
00001AF0	98765432	98765432									

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	38
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00001AF8	98765432	98765432							
00001B00	98765432	98765432							
00001B08	98765432	98765432							
00001B10	98765432	98765432							
00001B18	98765432	98765432							
00001B20	98765432	98765432							
00001B28	98765432	98765432							
00001B30	98765432	98765432							
00001B38	98765432	98765432							
00001B40	98765432	98765432							
00001B48	98765432	98765432							
00001B50	98765432	98765432							
00001B58	98765432	98765432							
00001B60	98765432	98765432							
00001B68	98765432	98765432							
00001B70	98765432	98765432							
00001B78	98765432	98765432							
00001B80	98765432	98765432							
00001B88	98765432	98765432							
00001B90	98765432	98765432							
00001B98	98765432	98765432							
00001BA0	98765432	98765432							
00001BA8	98765432	98765432							
00001BB0	98765432	98765432							
00001BB8	98765432	98765432							
00001BC0	98765432	98765432							
00001BC8	98765432	98765432							
00001BD0	98765432	98765432							
00001BD8	98765432	98765432							
00001BE0	98765432	98765432							
00001BE8	98765432	98765432							
00001BF0	98765432	98765432							
00001BF8	98765432	98765432							
00001C00	98765432	98765432							
00001C08	98765432	98765432							
00001C10	98765432	98765432							
00001C18	98765432	98765432							
00001C20	98765432	98765432							
00001C28	98765432	98765432							
00001C30	98765432	98765432							
00001C38	98765432	98765432							
00001C40	98765432	98765432							
00001C48	98765432	98765432							
00001C50	98765432	98765432							
00001C58	98765432	98765432							
00001C60	98765432	98765432							
00001C68	98765432	98765432							
00001C70	98765432	98765432							
00001C78	98765432	98765432							
00001C80	98765432	98765432							
00001C88	98765432	98765432							
00001C90	98765432	98765432							
00001C98	98765432	98765432							
00001CA0	98765432	98765432							
00001CA8	98765432	98765432							
00001CB0	98765432	98765432							

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
00001CB8	98765432	98765432			
00001CC0	98765432	98765432			
00001CC8	98765432	98765432			
00001CD0	98765432	98765432			
00001CD8	98765432	98765432			
00001CE0	98765432	98765432			
00001CE8	98765432	98765432			
00001CF0	98765432	98765432			
00001CF8	98765432	98765432			
00001D00	98765432	98765432			
00001D08	98765432	98765432			
00001D10	98765432	98765432			
00001D18	98765432	98765432			
00001D20	98765432	98765432			
00001D28	98765432	98765432			
00001D30	98765432	98765432			
00001D38	98765432	98765432			
00001D40	98765432	98765432			
00001D48	98765432	98765432			
00001D50	98765432	98765432			
00001D58	98765432	98765432			
00001D60	98765432	98765432			
00001D68	98765432	98765432			
00001D70	98765432	98765432			
00001D78	98765432	98765432			
00001D80	98765432	98765432			
00001D88	98765432	98765432			
00001D90	98765432	98765432			
00001D98	98765432	98765432			
00001DA0	98765432	98765432			
00001DA8	98765432	98765432			
00001DB0	98765432	98765432			
00001DB8	98765432	98765432			
00001DC0	98765432	98765432			
00001DC8	98765432	98765432			
00001DD0	98765432	98765432			
00001DD8	98765432	98765432			
00001DE0	98765432	98765432			
00001DE8	98765432	98765432			
00001DF0	98765432	98765432			
00001DF8	98765432	98765432			
00001E00	98765432	98765432			
00001E08	98765432	98765432			
00001E10	98765432	98765432			
00001E18	98765432	98765432			
00001E20	98765432	98765432			
00001E28	98765432	98765432			
00001E30	98765432	98765432			
00001E38	98765432	98765432			
00001E40	98765432	98765432			
00001E48	98765432	98765432			
00001E50	98765432	98765432			
00001E58	98765432	98765432			
00001E60	98765432	98765432			
00001E68	98765432	98765432			
00001E70	98765432	98765432			

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
00001E78	98765432	98765432			
00001E80	98765432	98765432			
00001E88	98765432	98765432			
00001E90	98765432	98765432			
00001E98	98765432	98765432			
00001EA0	98765432	98765432			
00001EA8	98765432	98765432			
00001EB0	98765432	98765432			
00001EB8	98765432	98765432			
00001EC0	98765432	98765432			
00001EC8	98765432	98765432			
00001ED0	98765432	98765432			
00001ED8	98765432	98765432			
00001EE0	98765432	98765432			
00001EE8	98765432	98765432			
00001EF0	98765432	98765432			
00001EF8	98765432	98765432			
00001F00	98765432	98765432			
00001F08	98765432	98765432			
00001F10	98765432	98765432			
00001F18	98765432	98765432			
00001F20	98765432	98765432			
00001F28	98765432	98765432			
00001F30	98765432	98765432			
00001F38	98765432	98765432			
00001F40	98765432	98765432			
00001F48	98765432	98765432			
00001F50	98765432	98765432			
00001F58	98765432	98765432			
00001F60	98765432	98765432			
00001F68	98765432	98765432			
00001F70	98765432	98765432			
00001F78	98765432	98765432			
00001F80	98765432	98765432			
00001F88	98765432	98765432			
00001F90	98765432	98765432			
00001F98	98765432	98765432			
00001FA0	98765432	98765432			
00001FA8	98765432	98765432			
00001FB0	98765432	98765432			
00001FB8	98765432	98765432			
00001FC0	98765432	98765432			
00001FC8	98765432	98765432			
00001FD0	98765432	98765432			
00001FD8	98765432	98765432			
00001FE0	98765432	98765432			
00001FE8	98765432	98765432			
00001FF0	98765432	98765432			
00001FF8	98765432	98765432			
00002000	98765432	98765432			
00002008	98765432	98765432			
00002010	98765432	98765432			
00002018	98765432	98765432			
00002020	98765432	98765432			
00002028	98765432	98765432			
00002030	98765432	98765432			

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	41
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00002038	98765432	98765432							
00002040	98765432	98765432							
00002048	98765432	98765432							
00002050	98765432	98765432							
00002058	98765432	98765432							
00002060	98765432	98765432							
00002068	98765432	98765432							
00002070	98765432	98765432							
00002078	98765432	98765432							
00002080	98765432	98765432							
00002088	98765432	98765432							
00002090	98765432	98765432							
00002098	98765432	98765432							
000020A0	98765432	98765432							
000020A8	98765432	98765432							
000020B0	98765432	98765432							
000020B8	98765432	98765432							
000020C0	98765432	98765432							
000020C8	98765432	98765432							
000020D0	98765432	98765432							
000020D8	98765432	98765432							
000020E0	98765432	98765432							
000020E8	98765432	98765432							
000020F0	98765432	98765432							
000020F8	98765432	98765432							
00002100	98765432	98765432							
00002108	98765432	98765432							
00002110	98765432	98765432							
00002118	98765432	98765432							
00002120	98765432	98765432							
00002128	98765432	98765432							
00002130	98765432	98765432							
00002138	98765432	98765432			1172 TRT01L11 DC	256XL4'98765432',X'00110000',255XL4'98765432' (CC1)			
00002140	98765432	98765432							
00002148	98765432	98765432							
00002150	98765432	98765432							
00002158	98765432	98765432							
00002160	98765432	98765432							
00002168	98765432	98765432							
00002170	98765432	98765432							
00002178	98765432	98765432							
00002180	98765432	98765432							
00002188	98765432	98765432							
00002190	98765432	98765432							
00002198	98765432	98765432							
000021A0	98765432	98765432							
000021A8	98765432	98765432							
000021B0	98765432	98765432							
000021B8	98765432	98765432							
000021C0	98765432	98765432							
000021C8	98765432	98765432							
000021D0	98765432	98765432							
000021D8	98765432	98765432							
000021E0	98765432	98765432							
000021E8	98765432	98765432							

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
000021F0	98765432	98765432			
000021F8	98765432	98765432			
00002200	98765432	98765432			
00002208	98765432	98765432			
00002210	98765432	98765432			
00002218	98765432	98765432			
00002220	98765432	98765432			
00002228	98765432	98765432			
00002230	98765432	98765432			
00002238	98765432	98765432			
00002240	98765432	98765432			
00002248	98765432	98765432			
00002250	98765432	98765432			
00002258	98765432	98765432			
00002260	98765432	98765432			
00002268	98765432	98765432			
00002270	98765432	98765432			
00002278	98765432	98765432			
00002280	98765432	98765432			
00002288	98765432	98765432			
00002290	98765432	98765432			
00002298	98765432	98765432			
000022A0	98765432	98765432			
000022A8	98765432	98765432			
000022B0	98765432	98765432			
000022B8	98765432	98765432			
000022C0	98765432	98765432			
000022C8	98765432	98765432			
000022D0	98765432	98765432			
000022D8	98765432	98765432			
000022E0	98765432	98765432			
000022E8	98765432	98765432			
000022F0	98765432	98765432			
000022F8	98765432	98765432			
00002300	98765432	98765432			
00002308	98765432	98765432			
00002310	98765432	98765432			
00002318	98765432	98765432			
00002320	98765432	98765432			
00002328	98765432	98765432			
00002330	98765432	98765432			
00002338	98765432	98765432			
00002340	98765432	98765432			
00002348	98765432	98765432			
00002350	98765432	98765432			
00002358	98765432	98765432			
00002360	98765432	98765432			
00002368	98765432	98765432			
00002370	98765432	98765432			
00002378	98765432	98765432			
00002380	98765432	98765432			
00002388	98765432	98765432			
00002390	98765432	98765432			
00002398	98765432	98765432			
000023A0	98765432	98765432			
000023A8	98765432	98765432			

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
000023B0	98765432	98765432			
000023B8	98765432	98765432			
000023C0	98765432	98765432			
000023C8	98765432	98765432			
000023D0	98765432	98765432			
000023D8	98765432	98765432			
000023E0	98765432	98765432			
000023E8	98765432	98765432			
000023F0	98765432	98765432			
000023F8	98765432	98765432			
00002400	98765432	98765432			
00002408	98765432	98765432			
00002410	98765432	98765432			
00002418	98765432	98765432			
00002420	98765432	98765432			
00002428	98765432	98765432			
00002430	98765432	98765432			
00002438	98765432	98765432			
00002440	98765432	98765432			
00002448	98765432	98765432			
00002450	98765432	98765432			
00002458	98765432	98765432			
00002460	98765432	98765432			
00002468	98765432	98765432			
00002470	98765432	98765432			
00002478	98765432	98765432			
00002480	98765432	98765432			
00002488	98765432	98765432			
00002490	98765432	98765432			
00002498	98765432	98765432			
000024A0	98765432	98765432			
000024A8	98765432	98765432			
000024B0	98765432	98765432			
000024B8	98765432	98765432			
000024C0	98765432	98765432			
000024C8	98765432	98765432			
000024D0	98765432	98765432			
000024D8	98765432	98765432			
000024E0	98765432	98765432			
000024E8	98765432	98765432			
000024F0	98765432	98765432			
000024F8	98765432	98765432			
00002500	98765432	98765432			
00002508	98765432	98765432			
00002510	98765432	98765432			
00002518	98765432	98765432			
00002520	98765432	98765432			
00002528	98765432	98765432			
00002530	98765432	98765432			
00002538	00110000	98765432			
00002540	98765432	98765432			
00002548	98765432	98765432			
00002550	98765432	98765432			
00002558	98765432	98765432			
00002560	98765432	98765432			
00002568	98765432	98765432			

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	44
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00002570	98765432	98765432							
00002578	98765432	98765432							
00002580	98765432	98765432							
00002588	98765432	98765432							
00002590	98765432	98765432							
00002598	98765432	98765432							
000025A0	98765432	98765432							
000025A8	98765432	98765432							
000025B0	98765432	98765432							
000025B8	98765432	98765432							
000025C0	98765432	98765432							
000025C8	98765432	98765432							
000025D0	98765432	98765432							
000025D8	98765432	98765432							
000025E0	98765432	98765432							
000025E8	98765432	98765432							
000025F0	98765432	98765432							
000025F8	98765432	98765432							
00002600	98765432	98765432							
00002608	98765432	98765432							
00002610	98765432	98765432							
00002618	98765432	98765432							
00002620	98765432	98765432							
00002628	98765432	98765432							
00002630	98765432	98765432							
00002638	98765432	98765432							
00002640	98765432	98765432							
00002648	98765432	98765432							
00002650	98765432	98765432							
00002658	98765432	98765432							
00002660	98765432	98765432							
00002668	98765432	98765432							
00002670	98765432	98765432							
00002678	98765432	98765432							
00002680	98765432	98765432							
00002688	98765432	98765432							
00002690	98765432	98765432							
00002698	98765432	98765432							
000026A0	98765432	98765432							
000026A8	98765432	98765432							
000026B0	98765432	98765432							
000026B8	98765432	98765432							
000026C0	98765432	98765432							
000026C8	98765432	98765432							
000026D0	98765432	98765432							
000026D8	98765432	98765432							
000026E0	98765432	98765432							
000026E8	98765432	98765432							
000026F0	98765432	98765432							
000026F8	98765432	98765432							
00002700	98765432	98765432							
00002708	98765432	98765432							
00002710	98765432	98765432							
00002718	98765432	98765432							
00002720	98765432	98765432							
00002728	98765432	98765432							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	45
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00002730	98765432	98765432							
00002738	98765432	98765432							
00002740	98765432	98765432							
00002748	98765432	98765432							
00002750	98765432	98765432							
00002758	98765432	98765432							
00002760	98765432	98765432							
00002768	98765432	98765432							
00002770	98765432	98765432							
00002778	98765432	98765432							
00002780	98765432	98765432							
00002788	98765432	98765432							
00002790	98765432	98765432							
00002798	98765432	98765432							
000027A0	98765432	98765432							
000027A8	98765432	98765432							
000027B0	98765432	98765432							
000027B8	98765432	98765432							
000027C0	98765432	98765432							
000027C8	98765432	98765432							
000027D0	98765432	98765432							
000027D8	98765432	98765432							
000027E0	98765432	98765432							
000027E8	98765432	98765432							
000027F0	98765432	98765432							
000027F8	98765432	98765432							
00002800	98765432	98765432							
00002808	98765432	98765432							
00002810	98765432	98765432							
00002818	98765432	98765432							
00002820	98765432	98765432							
00002828	98765432	98765432							
00002830	98765432	98765432							
00002838	98765432	98765432							
00002840	98765432	98765432							
00002848	98765432	98765432							
00002850	98765432	98765432							
00002858	98765432	98765432							
00002860	98765432	98765432							
00002868	98765432	98765432							
00002870	98765432	98765432							
00002878	98765432	98765432							
00002880	98765432	98765432							
00002888	98765432	98765432							
00002890	98765432	98765432							
00002898	98765432	98765432							
000028A0	98765432	98765432							
000028A8	98765432	98765432							
000028B0	98765432	98765432							
000028B8	98765432	98765432							
000028C0	98765432	98765432							
000028C8	98765432	98765432							
000028D0	98765432	98765432							
000028D8	98765432	98765432							
000028E0	98765432	98765432							
000028E8	98765432	98765432							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	46
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
000028F0	98765432	98765432							
000028F8	98765432	98765432							
00002900	98765432	98765432							
00002908	98765432	98765432							
00002910	98765432	98765432							
00002918	98765432	98765432							
00002920	98765432	98765432							
00002928	98765432	98765432							
00002930	98765432	98765432							
00002938	98765432	98765432			1174 TRT01LF0 DC	511XL4'98765432',X'000000F0'		(CC1)	
00002940	98765432	98765432							
00002948	98765432	98765432							
00002950	98765432	98765432							
00002958	98765432	98765432							
00002960	98765432	98765432							
00002968	98765432	98765432							
00002970	98765432	98765432							
00002978	98765432	98765432							
00002980	98765432	98765432							
00002988	98765432	98765432							
00002990	98765432	98765432							
00002998	98765432	98765432							
000029A0	98765432	98765432							
000029A8	98765432	98765432							
000029B0	98765432	98765432							
000029B8	98765432	98765432							
000029C0	98765432	98765432							
000029C8	98765432	98765432							
000029D0	98765432	98765432							
000029D8	98765432	98765432							
000029E0	98765432	98765432							
000029E8	98765432	98765432							
000029F0	98765432	98765432							
000029F8	98765432	98765432							
00002A00	98765432	98765432							
00002A08	98765432	98765432							
00002A10	98765432	98765432							
00002A18	98765432	98765432							
00002A20	98765432	98765432							
00002A28	98765432	98765432							
00002A30	98765432	98765432							
00002A38	98765432	98765432							
00002A40	98765432	98765432							
00002A48	98765432	98765432							
00002A50	98765432	98765432							
00002A58	98765432	98765432							
00002A60	98765432	98765432							
00002A68	98765432	98765432							
00002A70	98765432	98765432							
00002A78	98765432	98765432							
00002A80	98765432	98765432							
00002A88	98765432	98765432							
00002A90	98765432	98765432							
00002A98	98765432	98765432							
00002AA0	98765432	98765432							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	47
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00002AA8	98765432	98765432							
00002AB0	98765432	98765432							
00002AB8	98765432	98765432							
00002AC0	98765432	98765432							
00002AC8	98765432	98765432							
00002AD0	98765432	98765432							
00002AD8	98765432	98765432							
00002AE0	98765432	98765432							
00002AE8	98765432	98765432							
00002AF0	98765432	98765432							
00002AF8	98765432	98765432							
00002B00	98765432	98765432							
00002B08	98765432	98765432							
00002B10	98765432	98765432							
00002B18	98765432	98765432							
00002B20	98765432	98765432							
00002B28	98765432	98765432							
00002B30	98765432	98765432							
00002B38	98765432	98765432							
00002B40	98765432	98765432							
00002B48	98765432	98765432							
00002B50	98765432	98765432							
00002B58	98765432	98765432							
00002B60	98765432	98765432							
00002B68	98765432	98765432							
00002B70	98765432	98765432							
00002B78	98765432	98765432							
00002B80	98765432	98765432							
00002B88	98765432	98765432							
00002B90	98765432	98765432							
00002B98	98765432	98765432							
00002BA0	98765432	98765432							
00002BA8	98765432	98765432							
00002BB0	98765432	98765432							
00002BB8	98765432	98765432							
00002BC0	98765432	98765432							
00002BC8	98765432	98765432							
00002BD0	98765432	98765432							
00002BD8	98765432	98765432							
00002BE0	98765432	98765432							
00002BE8	98765432	98765432							
00002BF0	98765432	98765432							
00002BF8	98765432	98765432							
00002C00	98765432	98765432							
00002C08	98765432	98765432							
00002C10	98765432	98765432							
00002C18	98765432	98765432							
00002C20	98765432	98765432							
00002C28	98765432	98765432							
00002C30	98765432	98765432							
00002C38	98765432	98765432							
00002C40	98765432	98765432							
00002C48	98765432	98765432							
00002C50	98765432	98765432							
00002C58	98765432	98765432							
00002C60	98765432	98765432							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26	Page	48
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT			
00002C68	98765432	98765432						
00002C70	98765432	98765432						
00002C78	98765432	98765432						
00002C80	98765432	98765432						
00002C88	98765432	98765432						
00002C90	98765432	98765432						
00002C98	98765432	98765432						
00002CA0	98765432	98765432						
00002CA8	98765432	98765432						
00002CB0	98765432	98765432						
00002CB8	98765432	98765432						
00002CC0	98765432	98765432						
00002CC8	98765432	98765432						
00002CD0	98765432	98765432						
00002CD8	98765432	98765432						
00002CE0	98765432	98765432						
00002CE8	98765432	98765432						
00002CF0	98765432	98765432						
00002CF8	98765432	98765432						
00002D00	98765432	98765432						
00002D08	98765432	98765432						
00002D10	98765432	98765432						
00002D18	98765432	98765432						
00002D20	98765432	98765432						
00002D28	98765432	98765432						
00002D30	98765432	98765432						
00002D38	98765432	98765432						
00002D40	98765432	98765432						
00002D48	98765432	98765432						
00002D50	98765432	98765432						
00002D58	98765432	98765432						
00002D60	98765432	98765432						
00002D68	98765432	98765432						
00002D70	98765432	98765432						
00002D78	98765432	98765432						
00002D80	98765432	98765432						
00002D88	98765432	98765432						
00002D90	98765432	98765432						
00002D98	98765432	98765432						
00002DA0	98765432	98765432						
00002DA8	98765432	98765432						
00002DB0	98765432	98765432						
00002DB8	98765432	98765432						
00002DC0	98765432	98765432						
00002DC8	98765432	98765432						
00002DD0	98765432	98765432						
00002DD8	98765432	98765432						
00002DE0	98765432	98765432						
00002DE8	98765432	98765432						
00002DF0	98765432	98765432						
00002DF8	98765432	98765432						
00002E00	98765432	98765432						
00002E08	98765432	98765432						
00002E10	98765432	98765432						
00002E18	98765432	98765432						
00002E20	98765432	98765432						

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	49
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00002E28	98765432	98765432							
00002E30	98765432	98765432							
00002E38	98765432	98765432							
00002E40	98765432	98765432							
00002E48	98765432	98765432							
00002E50	98765432	98765432							
00002E58	98765432	98765432							
00002E60	98765432	98765432							
00002E68	98765432	98765432							
00002E70	98765432	98765432							
00002E78	98765432	98765432							
00002E80	98765432	98765432							
00002E88	98765432	98765432							
00002E90	98765432	98765432							
00002E98	98765432	98765432							
00002EA0	98765432	98765432							
00002EA8	98765432	98765432							
00002EB0	98765432	98765432							
00002EB8	98765432	98765432							
00002EC0	98765432	98765432							
00002EC8	98765432	98765432							
00002ED0	98765432	98765432							
00002ED8	98765432	98765432							
00002EE0	98765432	98765432							
00002EE8	98765432	98765432							
00002EF0	98765432	98765432							
00002EF8	98765432	98765432							
00002F00	98765432	98765432							
00002F08	98765432	98765432							
00002F10	98765432	98765432							
00002F18	98765432	98765432							
00002F20	98765432	98765432							
00002F28	98765432	98765432							
00002F30	98765432	98765432							
00002F38	98765432	98765432							
00002F40	98765432	98765432							
00002F48	98765432	98765432							
00002F50	98765432	98765432							
00002F58	98765432	98765432							
00002F60	98765432	98765432							
00002F68	98765432	98765432							
00002F70	98765432	98765432							
00002F78	98765432	98765432							
00002F80	98765432	98765432							
00002F88	98765432	98765432							
00002F90	98765432	98765432							
00002F98	98765432	98765432							
00002FA0	98765432	98765432							
00002FA8	98765432	98765432							
00002FB0	98765432	98765432							
00002FB8	98765432	98765432							
00002FC0	98765432	98765432							
00002FC8	98765432	98765432							
00002FD0	98765432	98765432							
00002FD8	98765432	98765432							
00002FE0	98765432	98765432							

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
					1176 *****
					1177 * Function Code (FC) Tables (GR1)
					1178 *****
00003138	00000000	00000000			1180 TRTOP20 DC 256X'00' no stop
00003140	00000000	00000000			
00003148	00000000	00000000			
00003150	00000000	00000000			
00003158	00000000	00000000			
00003160	00000000	00000000			
00003168	00000000	00000000			
00003170	00000000	00000000			
00003178	00000000	00000000			
00003180	00000000	00000000			
00003188	00000000	00000000			
00003190	00000000	00000000			
00003198	00000000	00000000			
000031A0	00000000	00000000			
000031A8	00000000	00000000			
000031B0	00000000	00000000			
000031B8	00000000	00000000			
000031C0	00000000	00000000			
000031C8	00000000	00000000			
000031D0	00000000	00000000			
000031D8	00000000	00000000			
000031E0	00000000	00000000			
000031E8	00000000	00000000			
000031F0	00000000	00000000			
000031F8	00000000	00000000			
00003200	00000000	00000000			
00003208	00000000	00000000			
00003210	00000000	00000000			
00003218	00000000	00000000			
00003220	00000000	00000000			
00003228	00000000	00000000			
00003230	00000000	00000000			
00003238			00003238	00023238	1181 ORG ++2*K64
00023238	00000000	00000000			1183 TRTOP211 DC 17X'00',X'11',238X'00' stop on X'11'
00023240	00000000	00000000			
00023248	00110000	00000000			
00023250	00000000	00000000			
00023258	00000000	00000000			
00023260	00000000	00000000			
00023268	00000000	00000000			
00023270	00000000	00000000			
00023278	00000000	00000000			
00023280	00000000	00000000			
00023288	00000000	00000000			
00023290	00000000	00000000			
00023298	00000000	00000000			
000232A0	00000000	00000000			
000232A8	00000000	00000000			
000232B0	00000000	00000000			
000232B8	00000000	00000000			
000232C0	00000000	00000000			

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	52
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
000232C8	00000000	00000000							
000232D0	00000000	00000000							
000232D8	00000000	00000000							
000232E0	00000000	00000000							
000232E8	00000000	00000000							
000232F0	00000000	00000000							
000232F8	00000000	00000000							
00023300	00000000	00000000							
00023308	00000000	00000000							
00023310	00000000	00000000							
00023318	00000000	00000000							
00023320	00000000	00000000							
00023328	00000000	00000000							
00023330	00000000	00000000							
00023338	00000000	00000000			1185 TRTOP2F0 DC	240X'00',X'F0',15X'00'		stop on X'F0'	
00023340	00000000	00000000							
00023348	00000000	00000000							
00023350	00000000	00000000							
00023358	00000000	00000000							
00023360	00000000	00000000							
00023368	00000000	00000000							
00023370	00000000	00000000							
00023378	00000000	00000000							
00023380	00000000	00000000							
00023388	00000000	00000000							
00023390	00000000	00000000							
00023398	00000000	00000000							
000233A0	00000000	00000000							
000233A8	00000000	00000000							
000233B0	00000000	00000000							
000233B8	00000000	00000000							
000233C0	00000000	00000000							
000233C8	00000000	00000000							
000233D0	00000000	00000000							
000233D8	00000000	00000000							
000233E0	00000000	00000000							
000233E8	00000000	00000000							
000233F0	00000000	00000000							
000233F8	00000000	00000000							
00023400	00000000	00000000							
00023408	00000000	00000000							
00023410	00000000	00000000							
00023418	00000000	00000000							
00023420	00000000	00000000							
00023428	F0000000	00000000							
00023430	00000000	00000000							
00023438	00000000	00000000			1187 TRTOP411 DC	34X'00',X'0011',476X'00'		stop on X'11'	
00023440	00000000	00000000							
00023448	00000000	00000000							
00023450	00000000	00000000							
00023458	00000011	00000000							
00023460	00000000	00000000							
00023468	00000000	00000000							
00023470	00000000	00000000							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	53
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00023478	00000000	00000000							
00023480	00000000	00000000							
00023488	00000000	00000000							
00023490	00000000	00000000							
00023498	00000000	00000000							
000234A0	00000000	00000000							
000234A8	00000000	00000000							
000234B0	00000000	00000000							
000234B8	00000000	00000000							
000234C0	00000000	00000000							
000234C8	00000000	00000000							
000234D0	00000000	00000000							
000234D8	00000000	00000000							
000234E0	00000000	00000000							
000234E8	00000000	00000000							
000234F0	00000000	00000000							
000234F8	00000000	00000000							
00023500	00000000	00000000							
00023508	00000000	00000000							
00023510	00000000	00000000							
00023518	00000000	00000000							
00023520	00000000	00000000							
00023528	00000000	00000000							
00023530	00000000	00000000							
00023538	00000000	00000000							
00023540	00000000	00000000							
00023548	00000000	00000000							
00023550	00000000	00000000							
00023558	00000000	00000000							
00023560	00000000	00000000							
00023568	00000000	00000000							
00023570	00000000	00000000							
00023578	00000000	00000000							
00023580	00000000	00000000							
00023588	00000000	00000000							
00023590	00000000	00000000							
00023598	00000000	00000000							
000235A0	00000000	00000000							
000235A8	00000000	00000000							
000235B0	00000000	00000000							
000235B8	00000000	00000000							
000235C0	00000000	00000000							
000235C8	00000000	00000000							
000235D0	00000000	00000000							
000235D8	00000000	00000000							
000235E0	00000000	00000000							
000235E8	00000000	00000000							
000235F0	00000000	00000000							
000235F8	00000000	00000000							
00023600	00000000	00000000							
00023608	00000000	00000000							
00023610	00000000	00000000							
00023618	00000000	00000000							
00023620	00000000	00000000							
00023628	00000000	00000000							
00023630	00000000	00000000							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)			15 Oct 2022 14:46:26		Page	54
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00023638	00000000	00000000			1189 TRTOP4F0 DC	480X'00',X'00F0',30X'00'	stop on X'F0'		
00023640	00000000	00000000							
00023648	00000000	00000000							
00023650	00000000	00000000							
00023658	00000000	00000000							
00023660	00000000	00000000							
00023668	00000000	00000000							
00023670	00000000	00000000							
00023678	00000000	00000000							
00023680	00000000	00000000							
00023688	00000000	00000000							
00023690	00000000	00000000							
00023698	00000000	00000000							
000236A0	00000000	00000000							
000236A8	00000000	00000000							
000236B0	00000000	00000000							
000236B8	00000000	00000000							
000236C0	00000000	00000000							
000236C8	00000000	00000000							
000236D0	00000000	00000000							
000236D8	00000000	00000000							
000236E0	00000000	00000000							
000236E8	00000000	00000000							
000236F0	00000000	00000000							
000236F8	00000000	00000000							
00023700	00000000	00000000							
00023708	00000000	00000000							
00023710	00000000	00000000							
00023718	00000000	00000000							
00023720	00000000	00000000							
00023728	00000000	00000000							
00023730	00000000	00000000							
00023738	00000000	00000000							
00023740	00000000	00000000							
00023748	00000000	00000000							
00023750	00000000	00000000							
00023758	00000000	00000000							
00023760	00000000	00000000							
00023768	00000000	00000000							
00023770	00000000	00000000							
00023778	00000000	00000000							
00023780	00000000	00000000							
00023788	00000000	00000000							
00023790	00000000	00000000							
00023798	00000000	00000000							
000237A0	00000000	00000000							
000237A8	00000000	00000000							
000237B0	00000000	00000000							
000237B8	00000000	00000000							
000237C0	00000000	00000000							
000237C8	00000000	00000000							
000237D0	00000000	00000000							
000237D8	00000000	00000000							
000237E0	00000000	00000000							
000237E8	00000000	00000000							

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)				15 Oct 2022 14:46:26		Page	55
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT					
000237F0	00000000	00000000								
000237F8	00000000	00000000								
00023800	00000000	00000000								
00023808	00000000	00000000								
00023810	00000000	00000000								
00023818	00F00000	00000000								
00023820	00000000	00000000								
00023828	00000000	00000000								
00023830	00000000	00000000								
00023838	00000000	00000000			1191 TRTOP811 DC	17X'00',X'11',238X'00'			stop on X'11'	
00023840	00000000	00000000								
00023848	00110000	00000000								
00023850	00000000	00000000								
00023858	00000000	00000000								
00023860	00000000	00000000								
00023868	00000000	00000000								
00023870	00000000	00000000								
00023878	00000000	00000000								
00023880	00000000	00000000								
00023888	00000000	00000000								
00023890	00000000	00000000								
00023898	00000000	00000000								
000238A0	00000000	00000000								
000238A8	00000000	00000000								
000238B0	00000000	00000000								
000238B8	00000000	00000000								
000238C0	00000000	00000000								
000238C8	00000000	00000000								
000238D0	00000000	00000000								
000238D8	00000000	00000000								
000238E0	00000000	00000000								
000238E8	00000000	00000000								
000238F0	00000000	00000000								
000238F8	00000000	00000000								
00023900	00000000	00000000								
00023908	00000000	00000000								
00023910	00000000	00000000								
00023918	00000000	00000000								
00023920	00000000	00000000								
00023928	00000000	00000000								
00023930	00000000	00000000								
00023938			00023938	00043938	1192	ORG	++2*K64			
00043938	00000000	00000000			1194 TRTOP8F0 DC	240X'00',X'F0',15X'00'			stop on X'F0'	
00043940	00000000	00000000								
00043948	00000000	00000000								
00043950	00000000	00000000								
00043958	00000000	00000000								
00043960	00000000	00000000								
00043968	00000000	00000000								
00043970	00000000	00000000								
00043978	00000000	00000000								
00043980	00000000	00000000								
00043988	00000000	00000000								
00043990	00000000	00000000								

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
00043998	00000000	00000000							
000439A0	00000000	00000000							
000439A8	00000000	00000000							
000439B0	00000000	00000000							
000439B8	00000000	00000000							
000439C0	00000000	00000000							
000439C8	00000000	00000000							
000439D0	00000000	00000000							
000439D8	00000000	00000000							
000439E0	00000000	00000000							
000439E8	00000000	00000000							
000439F0	00000000	00000000							
000439F8	00000000	00000000							
00043A00	00000000	00000000							
00043A08	00000000	00000000							
00043A10	00000000	00000000							
00043A18	00000000	00000000							
00043A20	00000000	00000000							
00043A28	F0000000	00000000							
00043A30	00000000	00000000							
00043A38			00043A38	00063A38	1195	ORG	**2*K64		
00063A38	00000000	00000000			1197	TRTOP8F1 DC	240X'00',X'00',X'F1',14X'00' stop on X'F1'		
00063A40	00000000	00000000							
00063A48	00000000	00000000							
00063A50	00000000	00000000							
00063A58	00000000	00000000							
00063A60	00000000	00000000							
00063A68	00000000	00000000							
00063A70	00000000	00000000							
00063A78	00000000	00000000							
00063A80	00000000	00000000							
00063A88	00000000	00000000							
00063A90	00000000	00000000							
00063A98	00000000	00000000							
00063AA0	00000000	00000000							
00063AA8	00000000	00000000							
00063AB0	00000000	00000000							
00063AB8	00000000	00000000							
00063AC0	00000000	00000000							
00063AC8	00000000	00000000							
00063AD0	00000000	00000000							
00063AD8	00000000	00000000							
00063AE0	00000000	00000000							
00063AE8	00000000	00000000							
00063AF0	00000000	00000000							
00063AF8	00000000	00000000							
00063B00	00000000	00000000							
00063B08	00000000	00000000							
00063B10	00000000	00000000							
00063B18	00000000	00000000							
00063B20	00000000	00000000							
00063B28	00F10000	00000000							
00063B30	00000000	00000000							
00063B38			00063B38	00083B38	1198	ORG	**2*K64		

ASMA Ver. 0.2.1			TRTE-01-basic (Test TRTE instructions)				15 Oct 2022 14:46:26		Page	57
LOC	OBJECT	CODE	ADDR1	ADDR2	STMT					
00083B38	00000000	00000000			1200	TRTOPC11 DC	34X'00',X'0011'		stop on X'11'	
00083B40	00000000	00000000								
00083B48	00000000	00000000								
00083B50	00000000	00000000								
00083B58	00000011									
00083B5C			00083B5C	000A3B5C	1201	ORG	*+2*K64			
000A3B5C	00000000	00000000			1203	TRTOPCF0 DC	480X'00',X'00F0',28X'00'		stop on X'F0'	
000A3B64	00000000	00000000								
000A3B6C	00000000	00000000								
000A3B74	00000000	00000000								
000A3B7C	00000000	00000000								
000A3B84	00000000	00000000								
000A3B8C	00000000	00000000								
000A3B94	00000000	00000000								
000A3B9C	00000000	00000000								
000A3BA4	00000000	00000000								
000A3BAC	00000000	00000000								
000A3BB4	00000000	00000000								
000A3BBC	00000000	00000000								
000A3BC4	00000000	00000000								
000A3BCC	00000000	00000000								
000A3BD4	00000000	00000000								
000A3BDC	00000000	00000000								
000A3BE4	00000000	00000000								
000A3BEC	00000000	00000000								
000A3BF4	00000000	00000000								
000A3BFC	00000000	00000000								
000A3C04	00000000	00000000								
000A3C0C	00000000	00000000								
000A3C14	00000000	00000000								
000A3C1C	00000000	00000000								
000A3C24	00000000	00000000								
000A3C2C	00000000	00000000								
000A3C34	00000000	00000000								
000A3C3C	00000000	00000000								
000A3C44	00000000	00000000								
000A3C4C	00000000	00000000								
000A3C54	00000000	00000000								
000A3C5C	00000000	00000000								
000A3C64	00000000	00000000								
000A3C6C	00000000	00000000								
000A3C74	00000000	00000000								
000A3C7C	00000000	00000000								
000A3C84	00000000	00000000								
000A3C8C	00000000	00000000								
000A3C94	00000000	00000000								
000A3C9C	00000000	00000000								
000A3CA4	00000000	00000000								
000A3CAC	00000000	00000000								
000A3CB4	00000000	00000000								
000A3CBC	00000000	00000000								
000A3CC4	00000000	00000000								
000A3CCC	00000000	00000000								
000A3CD4	00000000	00000000								
000A3CDC	00000000	00000000								

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT				
000A3CE4	00000000	00000000							
000A3CEC	00000000	00000000							
000A3CF4	00000000	00000000							
000A3CFC	00000000	00000000							
000A3D04	00000000	00000000							
000A3D0C	00000000	00000000							
000A3D14	00000000	00000000							
000A3D1C	00000000	00000000							
000A3D24	00000000	00000000							
000A3D2C	00000000	00000000							
000A3D34	00000000	00000000							
000A3D3C	00F00000	00000000							
000A3D44	00000000	00000000							
000A3D4C	00000000	00000000							
000A3D54	00000000	0000							
000A3D5A			000A3D5A	000C3D5A	1204	ORG	++2*K64		
000C3D5A	00000000	00000000			1206	TRTOPCF1 DC	480X'00',X'0000',X'00F1',28X'00'	stop on X'F1'	
000C3D62	00000000	00000000							
000C3D6A	00000000	00000000							
000C3D72	00000000	00000000							
000C3D7A	00000000	00000000							
000C3D82	00000000	00000000							
000C3D8A	00000000	00000000							
000C3D92	00000000	00000000							
000C3D9A	00000000	00000000							
000C3DA2	00000000	00000000							
000C3DAA	00000000	00000000							
000C3DB2	00000000	00000000							
000C3DBA	00000000	00000000							
000C3DC2	00000000	00000000							
000C3DCA	00000000	00000000							
000C3DD2	00000000	00000000							
000C3DDA	00000000	00000000							
000C3DE2	00000000	00000000							
000C3DEA	00000000	00000000							
000C3DF2	00000000	00000000							
000C3DFA	00000000	00000000							
000C3E02	00000000	00000000							
000C3E0A	00000000	00000000							
000C3E12	00000000	00000000							
000C3E1A	00000000	00000000							
000C3E22	00000000	00000000							
000C3E2A	00000000	00000000							
000C3E32	00000000	00000000							
000C3E3A	00000000	00000000							
000C3E42	00000000	00000000							
000C3E4A	00000000	00000000							
000C3E52	00000000	00000000							
000C3E5A	00000000	00000000							
000C3E62	00000000	00000000							
000C3E6A	00000000	00000000							
000C3E72	00000000	00000000							
000C3E7A	00000000	00000000							
000C3E82	00000000	00000000							
000C3E8A	00000000	00000000							

[illegible]

ASMA Ver. 0.2.1		TRTE-01-basic (Test TRTE instructions)										15 Oct 2022 14:46:26										Page	63
SYMBOL		TYPE	VALUE	LENGTH	DEFN	REFERENCES																	
OPSWHERE		U	00000014	1	237	147																	
PAGE		U	00001000	1	216																		
R0		U	00000000	1	1213	42																	
R1		U	00000001	1	1214	147 159																	
R10		U	0000000A	1	1223	131 136 138 142 166 169																	
R11		U	0000000B	1	1224	132 133 139 153 154 160 173																	
R12		U	0000000C	1	1225	166 177																	
R13		U	0000000D	1	1226																		
R14		U	0000000E	1	1227	90 185 186																	
R15		U	0000000F	1	1228	193																	
R2		U	00000002	1	1215	157 169																	
R3		U	00000003	1	1216	173																	
R4		U	00000004	1	1217	147 157 159 177																	
R5		U	00000005	1	1218	122 123 180 181 192																	
R6		U	00000006	1	1219	126 127 134 136 140 142																	
R7		U	00000007	1	1220	135 141 149 150 151																	
R8		U	00000008	1	1221	76 79 80 81 83 194																	
R9		U	00000009	1	1222	77 83 84																	
REG2LOW		U	000000DD	1	253																		
REG2PATT		U	AABBCCDD	1	252	276 288 300 312 324 336 348 360 372 384 396 413 425																	
						437 449 461 473 485 497 509 521 533 552 564 576 588																	
						600 612 624 636 648 660 672 693 705 717 729 741 753																	
						765 777 789 801 813 833 845 857 869 881 893 905 917																	
						929 941 953 974 986 998 1010 1022 1034 1046 1058 1070 1082																	
						1094 1115 1127 1139 1151																	
SAVETRT		D	000005A8	8	190	159																	
SUBTEST		X	00000401	1	112	99 156 168 172 176																	
TEST01		I	00000502	4	120	90																	
TESTADDR		D	00000400	8	110																		
TESTNUM		X	00000400	1	111	96 120 127																	
TNUM		X	00000000	1	227	126																	
TRTE1TST		J	00000000	933722	41	44 48 52 108 42																	
TRTEBC		I	0000059E	4	188	160																	
TRTECTL		A	000005F8	4	261	122																	
TRTEDONE		I	0000059C	2	186	183																	
TRTEFAIL		I	00000598	4	185	170 174 178 188																	
TRTEMOD		I	00000554	4	157	151 161																	
TRTENEXT		U	00000034	1	250	180																	
TRTETEST		4	00000000	52	226	123																	
TRT01L0		X	00001938	4	1170	368 505 644 785 925 1066																	
TRT01L11		X	00002138	4	1172	380 517 656 797 937 1078																	
TRT01LF0		X	00002938	4	1174	392 529 668 809 949 1090 1135 1147																	
TRTOP10		X	00001438	4	1162	272 284 296 308 320 409 421 433 445 457 548 560 572																	
						584 689 701 713 725 829 841 853 865 970 982 994 1006																	
TRTOP111		X	00001538	4	1164	332 356 469 493 596 620 737 761 877 901 1018 1042																	
TRTOP1F0		X	00001638	4	1166	344 481 608 749 889 1030																	
TRTOP1F1		X	00001738	4	1168	632 773 913 1054 1111 1123																	
TRTOP20		X	00003138	1	1180	273 285 297 309 321 369 410 422 434 446 458 506 549																	
						561 573 585 645 690 702 714 726 786 830 842 854 866																	
						926 971 983 995 1007 1067																	
TRTOP211		X	00023238	1	1183	333 357 381 738 762 798																	
TRTOP2F0		X	00023338	1	1185	345 393 750 810																	
TRTOP411		X	00023438	1	1187	470 494 518 1019 1043 1079																	
TRTOP4F0		X	00023638	1	1189	482 530 1031 1091																	
TRTOP811		X	00023838	1	1191	597 621 657																	
TRTOP8F0		X	00043938	1	1194	609 669																	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES				
TRTOP8F1	X	00063A38	1	1197	633	774			
TRTOPC11	X	00083B38	1	1200	878	902	938		
TRTOPCF0	X	000A3B5C	1	1203	890	950	1136	1148	
TRTOPCF1	X	000C3D5A	1	1206	914	1055	1112	1124	
TST1LOOP	U	0000050A	1	125	182				
=F'0'	F	000005F4	4	213	181				

MACRO DEFN REFERENCES

No defined macros

DESC	SYMBOL	SIZE	POS	ADDR
------	--------	------	-----	------

Entry: 0

Image	IMAGE	933722	00000-E3F59	00000-E3F59
Region		933722	00000-E3F59	00000-E3F59
CSECT	TRTE1TST	933722	00000-E3F59	00000-E3F59

STMT	FILE NAME
------	-----------

1	c:\Users\Fish\Documents\Visual Studio 2008\Projects\MyProjects\ASMA-0\TRTE-01-basic\TRTE-01-basic.asm
---	---

** NO ERRORS FOUND **