

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
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```
2 *****
3 *
4 *          Various CKD Dasd CCW tests...
5 *
6 *          (mostly GitHub Issue #572)
7 *
8 *  This test program simply executes a few selected E7 Prefix CCW
9 *  channel programs to verify Hercules's E7 Prefix CCW support is
10 *  working properly. The current list of tests that this program
11 *  performs is as follows:
12 *
13 *    01  Format 2 PFX to obtain subsystem information (no IDA)
14 *    02  Format 0 PFX with Define Extent Valid bit off (DX CCW
15 *         chained) (Read 06 IDA)
16 *    03  Format 0 PFX with Define Extent Valid bit on (DX CCW
17 *         imbedded) (Read 06 1 IDA)
18 *    04  Format 2 PFX to obtain control unit information (PFX
19 *         E7 2 IDA, Read 06 1 IDA)
20 *    05  Read 06 CCW should fail since LR operation is Read(16)
21 *         and Read 06 CCW not multi-track (Read 06 1 IDA)
22 *    06  Same as Test #5, but properly uses multi-track Read
23 *         (86) (Read 86 1 IDA)
24 *    07  Peter's z/VM SSI issue (PFX 01 CMDREJ)
25 *    08  (NEW) Write Data erase remainder of track.
26 *    09  (NEW) Read record 3 on track 0 (verify test #08 erase)
27 *         (https://github.com/SDL-Hercules-390/hyperion/issues/601)
28 *
29 *
30 *  By default, all tests in the TESTTAB table are run one after
31 *  the other. To run just one specific test, in your .tst script,
32 *  set the TESTONLY byte at X'FFF' to the specific test number.
33 *
34 *  All channel programs (except for two of them) are expected to
35 *  complete normally without error (SCSW = CE+DE = X'0C00').
36 *
37 *  Tests #5 and #9 however are purposely designed to always fail
38 *  in order to verify Hercules properly rejects the invalid channel
39 *  program and does not mistakenly accept and process it instead.
40 *  Test #6 is the corrected form of test #5 which, just like all
41 *  of the other tests (except #9), should always succeed.
42 *
43 *  Except for Tests #1 and #7, most of the other tests (#2-#6)
44 *  also specify IDA (Indirect Data Addressing) in some of their
45 *  CCWs in order to verify proper Hercules handling of that too.
46 *
47 *  Tests #4, #8 and #9 are especially important in that #4 specifies
48 *  IDA in its E7 Prefix CCW so as to cause its data to be accessed
49 *  in TWO chunks (i.e. its IDAL contains TWO entries in it), and
50 *  test #8 and #9 together verify proper track erasure, whereas all
51 *  of the other IDA usage is only used in the Read 06 and Read 86
52 *  CCWs where the IDAL only has one entry in it to simply redirect
53 *  the read to elsewhere.
54 *
55 *  Thank you to Aaron Finerman for devising most of these tests.
56 *
57 *****
```

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				59 PRINT OFF
				3440 PRINT ON
				3442 *****
				3443 * SATK prolog stuff...
				3444 *****
				3446 ARCHLVL ZARCH=YES,ARCHIND=YES,MNOTE=NO
				3448+\$AL OPSYN AL
				3449+\$ALR OPSYN ALR
				3450+\$B OPSYN B
				3451+\$BAS OPSYN BAS
				3452+\$BASR OPSYN BASR
				3453+\$BC OPSYN BC
				3454+\$BCTR OPSYN BCTR
				3455+\$BE OPSYN BE
				3456+\$BH OPSYN BH
				3457+\$BL OPSYN BL
				3458+\$BM OPSYN BM
				3459+\$BNE OPSYN BNE
				3460+\$BNH OPSYN BNH
				3461+\$BNL OPSYN BNL
				3462+\$BNM OPSYN BNM
				3463+\$BNO OPSYN BNO
				3464+\$BNP OPSYN BNP
				3465+\$BNZ OPSYN BNZ
				3466+\$BO OPSYN BO
				3467+\$BP OPSYN BP
				3468+\$BXLE OPSYN BXLE
				3469+\$BZ OPSYN BZ
				3470+\$CH OPSYN CH
				3471+\$L OPSYN L
				3472+\$LH OPSYN LH
				3473+\$LM OPSYN LM
				3474+\$LPSW OPSYN LPSW
				3475+\$LR OPSYN LR
				3476+\$LTR OPSYN LTR
				3477+\$NR OPSYN NR
				3478+\$SL OPSYN SL
				3479+\$SLR OPSYN SLR
				3480+\$SR OPSYN SR
				3481+\$ST OPSYN ST
				3482+\$STM OPSYN STM
				3483+\$X OPSYN X
				3484+\$AHI OPSYN AHI
				3485+\$B OPSYN J
				3486+\$BC OPSYN BRC
				3487+\$BE OPSYN JE
				3488+\$BH OPSYN JH
				3489+\$BL OPSYN JL
				3490+\$BM OPSYN JM
				3491+\$BNE OPSYN JNE
				3492+\$BNH OPSYN JNH
				3493+\$BNL OPSYN JNL
				3494+\$BNM OPSYN JNM
				3495+\$BNO OPSYN JNO

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					3496+\$BNP	OPSYN JNP
					3497+\$BNZ	OPSYN JNZ
					3498+\$B0	OPSYN JO
					3499+\$BP	OPSYN JP
					3500+\$BXLE	OPSYN JXLE
					3501+\$BZ	OPSYN JZ
					3502+\$CHI	OPSYN CHI
					3503+\$AHI	OPSYN AGHI
					3504+\$AL	OPSYN ALG
					3505+\$ALR	OPSYN ALGR
					3506+\$BCTR	OPSYN BCTGR
					3507+\$BXLE	OPSYN JXLEG
					3508+\$CH	OPSYN CGH
					3509+\$CHI	OPSYN CGHI
					3510+\$L	OPSYN LG
					3511+\$LH	OPSYN LGH
					3512+\$LM	OPSYN LMG
					3513+\$LPSW	OPSYN LPSWE
					3514+\$LR	OPSYN LGR
					3515+\$LTR	OPSYN LTGR
					3516+\$NR	OPSYN NGR
					3517+\$SL	OPSYN SLG
					3518+\$SLR	OPSYN SLGR
					3519+\$SR	OPSYN SGR
					3520+\$ST	OPSYN STG
					3521+\$STM	OPSYN STMG
					3522+\$X	OPSYN XG
					3524 *****	
					3525 *	Initiate the E7TEST CSECT in the CODE region
					3526 *	with the location counter at 0
					3527 *****	
					3529 E7TEST	ASALOAD REGION=CODE
			00000000	00002023	3530+E7TEST	START 0,CODE
00000000	00020000	00000000			3532+	PSW 0,0,2,0,X'008' 64-bit Restart ISR Trap New PSW
00000010			00000010	00000058	3533+	ORG E7TEST+X'058'
00000058	00020000	00000000			3535+	PSW 0,0,2,0,X'018' 64-bit External ISR Trap New PSW
00000068	00020000	00000000			3536+	PSW 0,0,2,0,X'020' 64-bit Supervisor Call ISR Trap New PSW
00000078	00020000	00000000			3537+	PSW 0,0,2,0,X'028' 64-bit Program ISR Trap New PSW
00000088	00020000	00000000			3538+	PSW 0,0,2,0,X'030' 64-bit Machine Check Trap New PSW
00000098	00020000	00000000			3539+	PSW 0,0,2,0,X'038' 64-bit Input/Output Trap New PSW
000000A8			000000A8	000001A0	3540+	ORG E7TEST+X'1A0'
000001A0	00020000	00000000			3542+	PSWZ 0,0,2,0,X'120' Restart ISR Trap New PSW
000001B0	00020000	00000000			3543+	PSWZ 0,0,2,0,X'130' External ISR Trap New PSW
000001C0	00020000	00000000			3544+	PSWZ 0,0,2,0,X'140' Supervisor Call ISR Trap New PSW
000001D0	00020000	00000000			3545+	PSWZ 0,0,2,0,X'150' Program ISR Trap New PSW
000001E0	00020000	00000000			3546+	PSWZ 0,0,2,0,X'160' Machine Check Trap New PSW
000001F0	00020000	00000000			3547+	PSWZ 0,0,2,0,X'170' Input/Output Trap New PSW

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				3549	*****
				3550	* L O W C O R E
				3551	*****
00000200		00000200	000001A0	3553	ORG E7TEST+X'1A0' z/Arch Restart New PSW
000001A0	00000001 80000000			3554	DC 0D'0',XL8'0000000180000000'
000001A8	00000000 00000200			3555	DC AD(BEGIN)
000001B0		000001B0	000001D0	3557	ORG E7TEST+X'1D0' z/Arch Program New PSW
000001D0	00020001 80000000			3558	DC 0D'0',XL8'0002000180000000'
000001D8	00000000 0000DEAD			3559	DC AD(X'DEAD')
				3561	*****
				3562	* ENTRY POINT CODE
				3563	*****
				3564	* R0 (work)
				3565	* R1 (work) (also ENADEV macro's I/O device during startup)
				3566	* R2 (work)
				3567	* R3 IOCB pointer (set by INIT, needed by ENADEV macro)
				3568	* R4 SCHIB pointer (temporarily used at INIT during ENADEV)
				3569	* R5 SCHSCSW pointer (also temporarily used for CPU register
				3570	* when signaling architecture change during startup)
				3571	* R6,R7 (work) (also used as signaling registers when changing
				3572	* architecture during startup)
				3573	* R8 ORB pointer (set by INIT, used by EXCP subroutine)
				3574	* R9-R15 (work)
				3575	*****
000001E0		00000000		3577	USING E7TEST,R0 Low core addressability
000001E0		00000000		3578	USING ASA,R0 Low core addressability
000001E0		00000000		3579	USING IOCB,R3 SATK Device I/O-Control Block
000001E0		00000000		3580	USING SCHIB,R4 ESA/390 Subchannel Information Block
000001E0		00000000		3581	USING SCSW,R5 ESA/390 Subchannel Status Word
000001E0		00000000		3582	USING ORB,R8 ESA/390 Operation-Request Block
000001E0		000001E0	00000200	3584	ORG E7TEST+X'200'
		00000200	00000001	3585	BEGIN EQU *
00000200	1F00			3586	SLR R0,R0 Start clean (SIGP status register)
00000202	9200 0200		00000200	3587	MVI TESTNUM,0 Initialize Test number
00000206	1F11			3588	SLR R1,R1 Start clean (SIGP parm register)
00000208	1F22			3589	SLR R2,R2 Start clean
0000020A	1F33			3590	SLR R3,R3 Start clean (SIGP target CPU)
0000020C	4130 0000		00000000	3592	LA R3,0 Target CPU = CPU #0
00000210	4110 0001		00000001	3593	LA R1,1 Parm register = z/Arch mode
00000214	AE03 0012		00000012	3594	SIGP R0,R3,X'12' Order code = z/Arch mode
00000218	4780 0232		00000232	3595	BC B'1000',ZARCHOK CC0 = success: continue
0000021C	4740 0228		00000228	3596	BC B'0100',CHKZARCH CC1 = status stored: check further
00000220	4720 02D0		000002D0	3597	BC B'0010',FAILCPU0 CC2 = busy: FAIL
00000224	4710 02D0		000002D0	3598	BC B'0001',FAILCPU0 CC3 = not operational: FAIL

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					3600	*****
					3601	* Ensure test program executes in z/Architecture mode
					3602	*****
00000228	4140	0100		00000100	3604	CHKZARCH LA R4,X'100' Status X'100' = Same Architecture!
0000022C	1504				3605	CLR R0,R4 Are we already in z/Arch mode?
0000022E	A774	0051		000002D0	3606	JNE FAILCPU0 Any other status = FAIL
00000232	4140	0246		00000246	3608	ZARCHOK LA R4,BEGIN0 Point to CPU #0 entry point
00000236	4040	01AE		000001AE	3609	STH R4,X'1AE' Update Restart PSW
0000023A	4130	0000		00000000	3611	LA R3,0 Target CPU = CPU #0
0000023E	AE03	0006		00000006	3612	SIGP R0,R3,X'6' Order code = Restart
00000242	B2B2	02D0		000002D0	3614	LPSWE FAILCPU0 WTF?! How did we get here?!
					3616	*****
					3617	* THE ACTUAL (very short and simple) E7TEST TEST PROGRAM ITSELF
					3618	*****
00000246	45E0	0368		00000368	3620	BEGIN0 BAL R14,INIT Inititalize Program
0000024A	98AB	0610		00000610	3622	LM R10,R11,ATESTTAB R10 --> table, R11 <= #of entries
0000024E	9500	0FFF		00000FFF	3624	TESTLOOP CLI TESTONLY,0 Do only specific test?
00000252	4780	0260		00000260	3625	BE TESTTHIS No, do all tests
00000256	D500	0FFF	A003	00000003	3626	CLC TESTONLY,3(R10) Is the test they want?
0000025C	4770	0270		00000270	3627	BNE TESTNEXT No, skip this test
00000260	9801	A00C		0000000C	3629	TESTTHIS LM R0,R1,(TESTLEN-(2*4))(R10) R0 <= MSG LEN, R1 --> MSG
00000264	45E0	04A0		000004A0	3630	BAL R14,MSG Report which test this is
00000268	9802	A000		00000000	3632	LM R0,R2,0(R10) Load test parms from table
0000026C	45E0	027C		0000027C	3633	BAL R14,DOTEST Perform this test...
00000270	41A0	A014		00000014	3634	TESTNEXT LA R10,TESTLEN(,R10) R10 --> next test table entry
00000274	46B0	024E		0000024E	3636	BCT R11,TESTLOOP Loooop... until no more tests
00000278	B2B2	0308		00000308	3638	LPSWE GOODPSW E7TEST SUCCESS!



LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				3680 *****
				3681 * Disabled Wait PSWs...
				3682 *****
				3684 * Test failure routines to load specific failure PSW...
000002D0	4190 0328		00000328	3686 FAILCPU0 LA R9,BAD66PSW SIGP failed
000002D4	47F0 02F8		000002F8	3687 B FAIL
000002D8	4190 0338		00000338	3688 FAILSCH LA R9,BAD77PSW STSCH failed
000002DC	47F0 02F8		000002F8	3689 B FAIL
000002E0	4190 0348		00000348	3690 FAILDEV LA R9,BAD88PSW ENADEV failed
000002E4	47F0 02F8		000002F8	3691 B FAIL
000002E8	4190 0358		00000358	3692 FAILIO LA R9,BAD99PSW RAWIO failed
000002EC	47F0 02F8		000002F8	3693 B FAIL
000002F0	4190 0318		00000318	3694 FAILTEST LA R9,FAILPSW One of our overall tests failed
000002F4	47F0 02F8		000002F8	3695 B FAIL
000002F8	D200 900F 0200	0000000F	00000200	3697 FAIL MVC 16-1(1,R9),TESTNUM Put failing test# into PSW
000002FE	B2B2 9000		00000000	3698 LPSWE 0(R9) Load failure PSW
				3700 *
				3701 ** Overall test SUCCESS / FAILURE disabled wait PSWs...
				3702 *
00000308	00020001 80000000			3704 GOODPSW DC 0D'0',XL8'0002000180000000',AD(X'00000000')
00000318	00020001 80000000			3705 FAILPSW DC 0D'0',XL8'0002000180000000',AD(X'0BAD0000')
				3707 *
				3708 ** Specific unexpected failure disabled wait PSWs...
				3709 *
00000328	00020001 80000000			3711 BAD66PSW DC 0D'0',XL8'0002000180000000',AD(X'0BAD6600')
00000338	00020001 80000000			3712 BAD77PSW DC 0D'0',XL8'0002000180000000',AD(X'0BAD7700')
00000348	00020001 80000000			3713 BAD88PSW DC 0D'0',XL8'0002000180000000',AD(X'0BAD8800')
00000358	00020001 80000000			3714 BAD99PSW DC 0D'0',XL8'0002000180000000',AD(X'0BAD9900')



LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					3716 *****	
					3717 * Program Initialization	
					3718 *****	
00000368	4130	0574		00000574	3720 INIT LA R3,IOCB_A80	R3 --> IOCB
0000036C	E380	3018 0004		00000018	3721 LG R8,IOCBORB	R8 --> ORB
00000372	45F0	037C		0000037C	3722 BAL R15,IOINIT	Init CPU for I/O operations
00000376	45F0	038A		0000038A	3723 BAL R15,ENADEV	Enable device for I/O
0000037A	07FE				3724 BR R14	Return to caller
					3726 *****	
					3727 * Initialize the CPU for I/O operations	
					3728 *****	
0000037C	B766	0384		00000384	3730 IOINIT IOINIT ,	
00000380	47F0	0388		00000388	3731+IOINIT LCTL 6,6,IOMK0007	Enable subchannel subclasses for interruptions
00000384					3732+ B IOMK0007+4	
00000384	FF000000				3733+IOMK0007 DS 0F	
00000384					3734+ DC XL4'FF000000'	All subchannel subclasses enabled
00000388	07FF				3735 BR R15	Return to caller
					3737 *****	
					3738 * Enable the device, making it ready for use	
					3739 *****	
0000038A	5810	03D4		000003D4	3741 ENADEV ENADEV ENAOKAY,FAILDEV,REG=4	
0000038E	E340	3028 0004		00000028	3742+ENADEV L 1,FIND0008	
00000394			00000000		3743+ \$L 4,IOCBSIB	Locate where the SCHIB is to be stored
00000394					3744+ USING SCHIB,4	
00000394					3745+FINL0008 DS 0H	Retrieve Subchannel Information Block for desired device number
00000394	B234	4000		00000000	3746+ STSCH 0(4)	Store the SCHIB for first subchannel
00000398	A774	FFA4		000002E0	3747+ \$BC B'0111',FAILDEV	Subchannel does not exist and device number not found
0000039C	9101	4005		00000005	3748+ TM PMCW1_8,PMCWV	Is the subchannel device number valid?
000003A0	A784	0011		000003C2	3749+ \$BZ FINN0008	..No, check the next subchannel
000003A4	D501	4006 3004	00000006	00000004	3750+ CLC PMCWDNUM,IOCBDEV	Is this the device number being sought?
000003AA	A774	000C		000003C2	3751+ \$BNE FINN0008	..No, check the next subchannel
					3752+* Subchannel found!	
000003AE	5010	3000		00000000	3753+ ST 1,IOCBID	Remember the subchannel so I/O can be done to it.
000003B2	9680	4005		00000005	3754+ OI PMCW1_8,PMCWE	Make sure it is enabled so I/O requests accepted
000003B6	B232	4000		00000000	3755+ MSCH 0(4)	Enable the subchannel to the channel sub-system
000003BA	A784	0011		000003DC	3756+ \$BC B'1000',ENAOKAY	CC0 (SCHIB updated), device is ready.
000003BE	A7F4	FF91		000002E0	3757+ \$B FAILDEV	CC1,CC2,CC3 (SCHIB update failed), quit
000003C2					3758+FINN0008 DS 0H	Advance to next subchannel
000003C2	4110	1001		00000001	3759+ LA 1,1(0,1)	Advance to next subchannel
000003C6	5510	03D8		000003D8	3760+ CL 1,FINM0008	Beyond maximum subchannel
000003CA	A7D4	FFE5		00000394	3761+ \$BNH FINL0008	..No, examine the next subchannel
000003CE	A724	FF89		000002E0	3762+ \$BH FAILDEV	..Yes, failed to enable the device
000003D2					3763+ DROP 4	Forget SCHIB addressing
000003D4	00010000				3764+FIND0008 DC A(X'00010000')	First subchannel subsystem ID
000003D8	0001FFFF				3765+FINM0008 DC A(X'0001FFFF')	Last subchannel subsystem ID
000003DC	07FF				3767 ENAOKAY BR R15	Return to caller if device enabled OK



LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					3769 *****	
					3770 * Execute the channel program pointed to by R0	
					3771 *****	
000003DE	4100	06D0		000006D0	3773 DOSENSE LA R0,SENSEPGM	R0 -> Read SENSE Channel Program
000003E2	5000	8008		00000008	3774 EXCP ST R0,ORBCCW	Plug Channel Program into IORB
000003E6	B904	0004			3775 LGR R0,R4	Save SCHIB pointer
000003EA	9282	8005		00000005	3776 MVI ORB1_8,ORBF+ORBH	Format-1 CCWs, Format-2 IDAWs
000003EE	9200	8007		00000007	3777 MVI ORRB1_24,0	Set all these ORB flags to zero
					3779 RAWIO 4,FAIL=FAILIO	
000003F2	9200	300E		0000000E	3780+ MVI IOCBSC,X'00'	Clear SC information
000003F6	D201	300A 3006	0000000A	00000006	3781+ MVC IOCBST,IOCBZERO	Clear accumulated status
000003FC	5810	3000		00000000	3782+ L 1,IOCBDID	Remember the device ID with which I am working
					3783+* Initiate Subchannel-based input/output operation	
00000400	E340	3018 0004		00000018	3784+ \$L 4,IOCBORB	Locate the ORB for the channel subsystem
00000406	B233	4000		00000000	3785+ SSCH 0(4)	Initiate the I/O operation
0000040A	A774	FF6F		000002E8	3786+ \$BC B'0111',FAILIO	..Start function failed, report/handle the error
0000040E	E340	3020 0004		00000020	3787+ \$L 4,IOCBIRB	Locate the IRB storage area
00000414			00000000		3788+ USING IRB,4	Make it addressable
					3790+* Wait for I/O operation to present status via an interruption	
00000414					3791+IOWT0009 DS 0H Wait for I/O to complete	
00000414	D20F	0448 01F0	00000448	000001F0	3793+ MVC IOS0010(16),496(0)	Save Input/Output new PSW
0000041A	D20F	01F0 0438	000001F0	00000438	3794+ MVC 496(16,0),ION0010	Establish Input/Output new PSW
00000420	B2B2	0428		00000428	3795+ \$LPSW WPSW0010	Wait for event
00000428	02020000	00000000			3796+WPSW0010 PSW 2,0,2,0,0	Wait for event
00000438	00002000	00000000			3797+ION0010 PSW 0,0,0,32,IRST0010,24	I/O New PSW: cc==2
00000448	00000000	00000000			3798+IOS0010 DC XL16'00'	
					3799+* Handle input/output interruption	
00000458					3800+IRST0010 DS 0H	
00000458	D20F	01F0 0448	000001F0	00000448	3801+ MVC 496(16,0),IOS0010	Restore input/output new PSW
					3802+* Process the interruption...	
					3803+* Validate interruption is for the expected subchannel	
0000045E	5510	00B8		000000B8	3804+ CL 1,IOSSID	Is this the device for which I am waiting?
00000462	A774	FFD9		00000414	3805+ \$BNE IOWT0009	..No, continue waiting for it
					3806+* Accumulate interruption information from IRB	
00000466	B235	4000		00000000	3807+ TSCH 0(4)	Retrieve interrupt information
0000046A	A744	FFD5		00000414	3808+ \$BC B'0100',IOWT0009	CC1 (not status pending), wait for it to arrive
0000046E	A714	FF3D		000002E8	3809+ \$BC B'0001',FAILIO	CC3 (not operational), an error then
					3810+*	CC0 (status was pending), accumulate the status
00000472	D600	300E 4003	0000000E	00000003	3811+ OC IOCBSC,IRBSCSW+SCSW2	Accumulate status control
00000478	D601	300A 4008	0000000A	00000008	3812+ OC IOCBST,IRBSCSW+SCSWUS	Accumulate device and channel status
0000047E	9104	300E		0000000E	3813+ TM IOCBSC,SCSWSPRI	Primary subchannel status?
00000482	A7E4	FFC9		00000414	3814+ \$BNO IOWT0009	..No, wait for primary status
00000486	D203	3010 4004	00000010	00000004	3815+ MVC IOCBSCCW,IRBSCSW+SCSWCCW	CCW address
0000048C	D201	3016 400A	00000016	0000000A	3816+ MVC IOCBRCNT,IRBSCSW+SCSWCNT	Residual count
					3817+* Test for errors as specified in the IOCB	
00000492	910C	300A		0000000A	3818+ TM IOCBUS,CSWCE+CSWDE	Channel end and device end both accumulated?
00000496	A7E4	FF29		000002E8	3819+ \$BNO FAILIO	Hunh? No CE and DE but do have primary status!
					3820+* Input/Output operation successful	
0000049A	B904	0040			3822 LGR R4,R0	Restore SCHIB pointer
0000049E	07FF				3823 BR R15	Return to caller



LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				3858 *****
				3859 * IOCB
				3860 *****
				3861 *
				3862 * I/O Control Block -- Structure used by RAWIO macro
				3863 * identifying the device and operation being performed
				3864 *
				3865 *****
				3867 IOCB_A80 IOCB X'A80' I/O Control Block for CCUU device X'A80'
00000574	00000000			3868+IOCB_A80 DC A(0) +0 Device Identifier (supplied by ENADEV macro)
00000578	0A80			3869+ DC AL2(X'A80') +4 Device address or device number
0000057A	0000			3870+ DC H'0' +6 Must be zeros
0000057C	D3			3871+ DC AL1(X'D3') +8 Default detected unit errors
0000057D	3F			3872+ DC AL1(X'3F') +9 Default detected channel errors
0000057E	0000			3873+ DC HL2'0' +10 Accumulated unit and channel errors
00000580	0000			3874+ DC HL2'0' +12 Tested unit and channel status
00000582	00			3875+ DC XL1'00' +14 Accumulated subchannel status control from SCSW
00000583	80			3876+ DC XL1'80' +15 Default unsolicited wait condition
00000584	00000000			3877+ DC F'0' +16 I/O status CCW address
00000588	00000000			3878+ DC F'0' +20 residual count
0000058C	00000000	00000604		3879+ DC ADL8(IORB0011) +24 Address where ORB is located
00000594	00000000	000005A4		3880+ DC ADL8(IIRB0011) +32 Address where IRB stored
0000059C	00000000	000005A4		3881+ DC ADL8(IIRB0011) +40 Address where SCHIB stored
000005A4	00000000	00000000		3882+IIRB0011 DC 24F'0' Embedded shared IRB and SCHIB area
00000604				3884+IORB0011 DS 0XL12
00000604	00000000			3885+ DC A(0) Word 0 - Interruption Parameter
00000608	00			3886+ DC AL1((0)*16+B'0000') Word 1, bits 0-7
00000609	80			3887+ DC BL1'10000000' Word 1, bits 8-15
0000060A	FF			3888+ DC AL1(255) Word 1, bits 16-23
0000060B	00			3889+ DC BL1'00000000' Word 1, bits 24-31
0000060C	00000000			3890+ DC AL4(0) Word 2 - CCW address



LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					3922 *****	
					3923 * TESTS CONTROL TABLE	
					3924 *****	
					3926 PRINT DATA	
00000618					3928 TESTTAB DC 0A(0)	
00000618	00000001	00000718			3930 DC A(1,T1_CHPGM,0,T1_MSGLN,T1_DESC)	
00000620	00000000	0000003E				
00000628	000006D8		00000014	00000001	3931 TESTLEN EQU (*-TESTTAB)	Width of each test table entry
0000062C	00000002	00000780			3933 DC A(2,T2_CHPGM,0,T2_MSGLN,T2_DESC)	
00000634	00000000	00000055				
0000063C	00000728					
00000640	00000003	00000800			3934 DC A(3,T3_CHPGM,0,T3_MSGLN,T3_DESC)	
00000648	00000000	00000056				
00000650	000007A8					
00000654	00000004	00000878			3935 DC A(4,T4_CHPGM,0,T4_MSGLN,T4_DESC)	
0000065C	00000000	00000056				
00000664	00000820					
00000668	00000005	00000910			3936 DC A(5,T5_CHPGM,1,T5_MSGLN,T5_DESC)	(1=Expect I/O ERROR)
00000670	00000001	0000006F				
00000678	000008A0					
0000067C	00000006	00000988			3937 DC A(6,T6_CHPGM,0,T6_MSGLN,T6_DESC)	
00000684	00000000	00000051				
0000068C	00000930					
00000690	00000007	000009D8			3938 DC A(7,T7_CHPGM,0,T7_MSGLN,T7_DESC)	
00000698	00000000	0000002F				
000006A0	000009A8					
000006A4	00000008	00000A10			3939 DC A(8,T8_CHPGM,0,T8_MSGLN,T8_DESC)	
000006AC	00000000	0000002C				
000006B4	000009E0					
000006B8	00000009	00000A60			3940 DC A(9,T9_CHPGM,1,T9_MSGLN,T9_DESC)	(1=Expect I/O ERROR)
000006C0	00000001	00000033				
000006C8	00000A28					
					3942 PRINT NODATA	
			00000009	00000001	3944 NUMTESTS EQU (*-TESTTAB)/TESTLEN	Number of test table entries
000006CC					3946 LTORG , Literals Pool	
000006CC	0000				3947 =H'0'	
000006CE	0080				3948 =AL2(L'MSGMSG)	





LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
3986 *****						
00000820	E3C5E2E3	407BF47A	00000056	00000001	3988 T4_DESC DC	C'TEST #4: Format 2 PFX to obtain control unit information (PFX E7 2 IDA
					3989 T4_MSGLN EQU	*-T4_DESC
00000878					3990 DC	0D'0T
00000878	E764004C	00000888			3991 T4_CHPGM DC	AL1(PFX),AL1(CC+SLI+IDA),AL2(L'T4_E7DAT),AL4(T4_E7IDA)
00000880	3E240100	00000898			3992 DC	AL1(RSD),AL1(SLI+IDA),AL2(L'T4_3EBUF),AL4(T4_3EIDA)
00000888	00000000	00001FD8			3993 T4_E7IDA DC	AD(T4_E7DAT_PART1)
00000890	00000000	00002000			3994 DC	AD(T4_E7DAT_PART2)
00000898	00000000	00000CB0			3995 T4_3EIDA DC	AD(T4_3EBUF)
3997 *****						
000008A0	E3C5E2E3	407BF57A	0000006F	00000001	3999 T5_DESC DC	C'TEST #5: Read 06 CCW should fail since LR operation is Read(16) and R
					4000 T5_MSGLN EQU	*-T5_DESC
00000910					4001 DC	0D'0T
00000910	E7600040	00000DB0			4002 T5_CHPGM DC	AL1(PFX),AL1(CC+SLI),AL2(L'T5_E7DAT),AL4(T5_E7DAT)
00000918	47600010	00000DF0			4003 DC	AL1(LR),AL1(CC+SLI),AL2(L'T5_47DAT),AL4(T5_47DAT)
00000920	0624000A	00000928			4004 DC	AL1(RD),AL1(SLI+IDA),AL2(L'T5_06BUF),AL4(T5_06IDA)
00000928	00000000	00000E00			4005 T5_06IDA DC	AD(T5_06BUF)
4007 *****						
00000930	E3C5E2E3	407BF67A	00000051	00000001	4009 T6_DESC DC	C'TEST #6: Same as Test #5, but properly uses multi-track Read (86) (Re
					4010 T6_MSGLN EQU	*-T6_DESC
00000988					4011 DC	0D'0T
00000988	E7600040	00000E0A			4012 T6_CHPGM DC	AL1(PFX),AL1(CC+SLI),AL2(L'T6_E7DAT),AL4(T6_E7DAT)
00000990	47600010	00000E4A			4013 DC	AL1(LR),AL1(CC+SLI),AL2(L'T6_47DAT),AL4(T6_47DAT)
00000998	8624000A	000009A0			4014 DC	AL1(RDMT),AL1(SLI+IDA),AL2(L'T6_86BUF),AL4(T6_86IDA)
000009A0	00000000	00000E5A			4015 T6_86IDA DC	AD(T6_86BUF)
4017 *****						
000009A8	E3C5E2E3	407BF77A	0000002F	00000001	4019 T7_DESC DC	C'TEST #7: Peter''s z/VM SSI issue (PFX 01 CMDREJ)'
					4020 T7_MSGLN EQU	*-T7_DESC
000009D8					4021 DC	0D'0T
000009D8	E7200040	00000E64			4022 T7_CHPGM DC	AL1(PFX),AL1(SLI),AL2(T7_E7LEN),AL4(T7_E7DAT)

[illegible]

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				4043 *****
				4044 * I/O DATA AND I/O BUFFERS...
				4045 *****
00000A80				4047 DC 0D'0'
00000A80	00000000 00000000			4048 SNSBYTES DC XL32'00' (Generic SENSE buffer)
				4050 *****
00000AA0	02000000 00000000			4052 T1_E7DAT DC X'02000000 00000000 00000000' +00 PFX
00000AAC	00000000 00000000			4053 DC X'00000000 00000000 00000000 00000000' +12 DEF EXT
00000ABC	00000000 00000000			4054 DC X'00000000 00000000 00000000 00000000' +28
00000ACC	00000000 00000000			4055 DC X'00000000 00000000 00000000 00000000' +44 LREC EXD
00000ADC	0000			4056 DC X'0000' +60
00000ADE	18000000 00004100			4057 DC X' 1800 00000000 41000000 00000000' +62 PSF
		0000004C 00000001		4058 T1_E7LEN EQU *-T1_E7DAT
00000AEC	00000000 00000000			4059 T1_3EBUF DC XL256'00' (the subsystem data that was read)
				4061 *****
00000BEC	00000000 00000000			4063 T2_E7DAT DC XL64'00'
00000C2C	40C00000 00000000			4064 T2_63DAT DC XL16'40C00000 00000000 00000000 00000000'
00000C3C	06000001 00000000			4065 T2_47DAT DC XL16'06000001 00000000 00000000 03000000'
00000C4C	00000000 00000000			4066 T2_06BUF DC XL10'00'
				4068 *****
00000C56				4070 T3_E7DAT DS 0XL64
00000C56	00800000 00000000			4071 DC XL16'00800000 00000000 00000000 40C00000'
00000C66	00000000 00000000			4072 DC XL16'00000000 00000000 00000000 00000000'
00000C76	00000000 00000000			4073 DC XL16'00000000 00000000 00000000 00000000'
00000C86	00000000 00000000			4074 DC XL16'00000000 00000000 00000000 00000000'
00000C96	06000001 00000000			4075 T3_47DAT DC XL16'06000001 00000000 00000000 03000000'
00000CA6	00000000 00000000			4076 T3_06BUF DC XL10'00'

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
4079 *****				
00000CB0	00000000 00000000			4081 T4_3EBUF DC XL256'00'
				4082 PRINT DATA
		00000DB0 00000001		4083 T4_ORG EQU *
		0000004C 00000001		4084 T4_E7DAT_TOTAL_LEN EQU 76
		00000028 00000001		4085 T4_E7DAT_PART1_LEN EQU 40
		00000024 00000001		4086 T4_E7DAT_PART2_LEN EQU (T4_E7DAT_TOTAL_LEN-T4_E7DAT_PART1_LEN)
00000DB0		00000DB0 00001FD8		4087 ORG E7TEST+X'2000'-T4_E7DAT_PART1_LEN
00001FD8				4088 T4_E7DAT DS 0XL(T4_E7DAT_TOTAL_LEN)
00001FD8				4089 T4_E7DAT_PART1 DS 0XL(T4_E7DAT_PART1_LEN)
00001FD8	02000000 00000000			4090 DC XL16'02000000 00000000 00000000 00000000'
00001FE0	00000000 00000000			
00001FE8	00000000 00000000			4091 DC XL16'00000000 00000000 00000000 00000000'
00001FF0	00000000 00000000			
00001FF8	00000000 00000000			4092 DC XL8' 00000000 00000000'
00002000				4093 T4_E7DAT_PART2 DS 0XL(T4_E7DAT_PART2_LEN)
00002000	00000000 00000000			4094 DC XL8' 00000000 00000000'
00002008	00000000 00000000			4095 DC XL16'00000000 00000000 00000000 00001800'
00002010	00000000 00001800			
00002018	00000000 41000000			4096 DC XL12'00000000 41000000 00000000'
00002020	00000000			
00002024		00002024 00000DB0		4097 ORG T4_ORG
				4098 PRINT NODATA
4100 *****				
00000DB0				4102 T5_E7DAT DS 0XL64
00000DB0	00800000 00000000			4103 DC XL16'00800000 00000000 00000000 40C00000'
00000DC0	00000000 00000000			4104 DC XL16'00000000 00000000 00000000 00000000'
00000DD0	00000000 00000000			4105 DC XL16'00000000 00000000 00000000 00000000'
00000DE0	00000000 00000000			4106 DC XL16'00000000 00000000 00000000 00000000'
00000DF0	16000001 00000000			4107 T5_47DAT DC XL16'16000001 00000000 00000000 03000000'
00000E00	00000000 00000000			4108 T5_06BUF DC XL10'00'
4110 *****				
00000E0A				4112 T6_E7DAT DS 0XL64
00000E0A	00800000 00000000			4113 DC XL16'00800000 00000000 00000000 40C00000'
00000E1A	00000000 00000000			4114 DC XL16'00000000 00000000 00000000 00000000'
00000E2A	00000000 00000000			4115 DC XL16'00000000 00000000 00000000 00000000'
00000E3A	00000000 00000000			4116 DC XL16'00000000 00000000 00000000 00000000'
00000E4A	16000001 00000000			4117 T6_47DAT DC XL16'16000001 00000000 00000000 03000000'
00000E5A	00000000 00000000			4118 T6_86BUF DC XL10'00'



LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				4154 *****
				4155 *          IOCB DSECT
				4156 *****
				4158          DSECTS NAME=IOCB
				4160+IOCB     DSECT
				4161+*         Field usage by: CH SC Description (R->program read-only, X->program read/writ
00000000				4162+IOCBID  DS      0F  +0      R  Device Identifier - Subsystem ID for channel subsystem
00000000	0000			4163+         DS      H   +0      R          reserved - must be zeros
00000002	0000			4164+IOCBDEV DS      H   +2      R          Channel Unit Device address of I/O operation
00000004	0000			4165+IOCBDEV DS      H   +4     X  X  Device address or device number (R after ENADEV)
00000006	0000			4166+IOCBZERO DS      H   +6     R  R  Must be zeros
00000008	00			4167+IOCBUM   DS      X   +8     X  X  Unit status test mask
00000009	00			4168+IOCBCM   DS      X   +9     X  X  Channel status test mask
0000000A				4169+IOCBST   DS      0H  +10  X  X  Input/Output unit and channel status accumulation
0000000A	00			4170+IOCBUS   DS      X   +10  R  R  Accumulated unit status
0000000B	00			4171+IOCBCS   DS      X   +11  R  R  Accumulated channel status
0000000C	00			4172+IOCBUT   DS      X   +14  R  R  Used to test unit status
0000000D	00			4173+IOCBCT   DS      X   +13  R  R  Used to test channel status
0000000E	00			4174+IOCBSC   DS      X   +14      R  Accumulted subchannel status control
0000000F	00			4175+IOCBWAIT DS      X   +15  X  X  Recognized unsolicited interruption unit status events
00000010	00000000			4176+IOCBSCCW DS      A   +16  R  R  I/O status CCW address
00000014				4177+IOCBSCNT DS      0F  +20  R  R  I/O status residual count as a positive full word
00000014	0000			4178+         DS      H   +20  R          reserved must be zeros
00000016	0000			4179+IOCBRCNT DS      H   +22  R          I/O status residual count as an unsigned halfword
00000018				4180+IOBCAW   DS      0A  +24  X          Channel Address word
00000018	00000000	00000000		4181+IOCBORB  DS      AD  +24      X  Address of the ORB for channel subsystem I/O
00000020	00000000	00000000		4182+IOCBIRB  DS      AD  +32      X  Channel subsystem IRB address
00000028	00000000	00000000		4183+IOCBSIB  DS      AD  +40      X  Channel subsystem SCHIB address
		00000030	00000001	4184+IOCBL    EQU    *-IOCB  Length of IOCB control block (48) without embedded structures



LOC	OBJECT CODE	ADDR1	ADDR2	STMT				
				4186 *****				
				4187 * ORB DSECT				
				4188 *****				
				4190 DSECTS NAME=ORB				
00000000	00000000			4192+ORB DSECT				
				4193+ORBPARM DC F'0'	Word 0, bits 0-31			
00000004	00			4195+ORB1_0 DC	X'00'	Word 1, bits 0-7		
		000000F0	00000001	4196+ORBKEYM EQU	X'F0'	Word 1, bits 0-3	- Storage Key Mask	
		00000008	00000001	4197+ORBS EQU	X'08'	Word 1, bit 4	- Suspend Control	
		00000004	00000001	4198+ORBC EQU	X'04'	Word 1, bit 5	- Streaming Mode Control	
		00000002	00000001	4199+ORBM EQU	X'02'	Word 1, bit 6	- Modification Control	
		00000001	00000001	4200+ORBY EQU	X'01'	Word 1, bit 7	- Synchronization Control	
00000005	00			4202+ORB1_8 DC	X'00'	Word 1, bits 8-15		
		00000080	00000001	4203+ORBF EQU	X'80'	Word 1, bit 8	- CCW Format-Control	
		00000040	00000001	4204+ORBP EQU	X'40'	Word 1, bit 9	- Pre-fetch control	
		00000020	00000001	4205+ORBI EQU	X'20'	Word 1, bit 10	- Initial-status Interruption Control	
		00000010	00000001	4206+ORBA EQU	X'10'	Word 1, bit 11	- Address Limit Checking Control	
		00000008	00000001	4207+ORBU EQU	X'08'	Word 1, bit 12	- Suppress-suspended-interruption control	
		00000004	00000001	4208+ORBB EQU	X'04'	Word 1, bit 13	- Channel-Program-Type Control	
		00000002	00000001	4209+ORBH EQU	X'02'	Word 1, bit 14	- Format 2-IDAW Control	
		00000001	00000001	4210+ORBT EQU	X'01'	Word 1, bit 15	- 2K-IDAW control	
00000006	00			4211+ORBLPM DC	X'00'	Word 1, bits 16-23	- Logical Path Mask	
00000007	00			4212+ORRB1_24 DC	X'00'	Word 1, bits 24-31		
		00000080	00000001	4213+ORBL EQU	X'80'	Word 1, bit 24	- Incorrect Length Suppression Mode	
		0000007F	00000001	4214+ORBRVS3 EQU	X'7F'	Word 1, bits 25-31	- reserved must be zeros	
		00000040	00000001	4215+ORBD EQU	X'40'	Word 1, bit 25	- MIDAW Addressing Control	
		0000003E	00000001	4216+ORBRVS26 EQU	X'3E'	Word 1, bits 26-30	- reserved must be zeros	
		0000007E	00000001	4217+ORBRVS25 EQU	X'7E'	Word 1, bits 25-30	- reserved must be zeros	
		00000001	00000001	4218+ORBX EQU	X'01'	Word 1, bit 31	- ORB-extension control	
00000008	00000000			4220+ORBCCW DC	A(0)	Word 2, bits 1-31	- Channel Program Address	
		00000080	00000001	4221+ORBRVS4 EQU	X'80'	Word 2, bit 0	- reserved must be zero	
		0000000C	00000001	4222+ORBLEN EQU	*-ORB Length of standard ORB			
				4223+* Extended ORB fields				
0000000C	00			4224+ORBCSS DC	X'00'	Word 3, bits 0-7	- Channel Subsystem Priority	
0000000D	00			4225+ORBRVS5 DC	X'00'	Word 3, bits 8-15	- reserved must be zeros	
0000000E				4226+ORBPGM DC	0X'00'	Word 3, bits 16-23	- Transport mode reserves for program use	
0000000E	00			4227+ORBCU DC	X'00'	Word 3, bits 16-23	- Control Unit Priority	
0000000F	00			4228+ORBRVS6 DC	X'00'	Word 3, bits 24-31	- reserved must be zeros	
00000010	00000000 00000000			4229+ORBRVS7 DC	XL16'00'	Words 4-7	- reserved must be zeros	
		00000020	00000001	4230+ORBXLEN EQU	*-ORB Length of extended ORB			



LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				4248 *****	
				4249 * SCHIB DSECT	
				4250 *****	
				4252 DSECTS NAME=SCHIB	
				4254+SCHIB DSECT Subchannel	Information Block
00000000				4255+* Fields marked RW may be	changed by MSCH. IN indicates installed value supplied
00000000	00000000			4256+SCHPMCW DC	0XL28'00' Words 0-6 - Path-Management-Control Word
00000004	00			4257+PMCWI DC	F'0' RW Word 0, bits 0-31 - Interruption Parameter
				4258+PMCWI_0 DC	X'00' Word 1, bits 0-7
		00000038	00000001	4259+PMCWI_SCM EQU	X'38' RW Interruption Subclass Code Mask
00000005	00			4261+PMCWI_8 DC	X'00' Word 1, bits 8-15
		00000080	00000001	4262+PMCWE EQU	X'80' RW Word 1, bit 8 - Subchannel Enabled
		00000060	00000001	4263+PMCWLM EQU	X'60' RW Word 1, bits 9,10 - Limit-Mode Mask
		00000020	00000001	4264+PMCWL MG EQU	X'20' RW Word 1, bit 9 - Address must be GE to limit
		00000040	00000001	4265+PMCWL ML EQU	X'40' RW Word 1, bit 10 - Address must be less than the limit
		00000018	00000001	4266+PMCWMM EQU	X'18' RW Word 1, bits 11,12 - Measurement Mode Mask
		00000010	00000001	4267+PMCWMM E EQU	X'10' RW Word 1, bit 11 - Measurement Block Update Enabled
		00000008	00000001	4268+PMCWMMC EQU	X'08' RW Word 1, bit 12 - Device Connect Time Measurement Enabled
		00000004	00000001	4269+PMCWM EQU	X'04' RW Word 1, bit 13 - Multipath Mode Enabled
		00000002	00000001	4270+PMCWT EQU	X'02' IN Word 1, bit 14 - Timing facility availability
		00000001	00000001	4271+PMCWV EQU	X'01' IN Word 1, bit 15 - Device number valid
00000006	0000			4273+PMCWDNUM DC	H'0' IN Word 1, bits 16-31 - Device Number
00000008	00			4275+PMCWLPM DC	X'00' RW Word 2, bits 0-7 - Logical Path Mask
00000009	00			4276+PMCWP NOM DC	X'00' RW Word 2, bits 8-15 - Logical Path Not Operational Mask
0000000A	00			4277+PMCWL PUM DC	X'00' IN Word 2, bits 16-23 - Logical Path Used Mask
0000000B	00			4278+PMCWP IM DC	X'00' IN Word 2, bits 24-31 - Path-Installed Mask
0000000C	0000			4279+PMCWMBI DC	H'0' RW Word 3, bits 0-15 - Measurement Block Index
0000000E	00			4280+PMCWP OM DC	X'00' RW Word 3, bits 16-23 - Path-Operational Mask
0000000F	00			4281+PMCWP AM DC	X'00' IN Word 3, bits 24-31 - Path-Available Mask
00000010	00			4282+PMCWCHP0 DC	X'00' IN Word 3, bits 0-7 - Channel Path Identifier 0
00000011	00			4283+PMCWCHP1 DC	X'00' IN Word 3, bits 8-15 - Channel Path Identifier 1
00000012	00			4284+PMCWCHP2 DC	X'00' IN Word 3, bits 16-23 - Channel Path Identifier 2
00000013	00			4285+PMCWCHP3 DC	X'00' IN Word 3, bits 24-31 - Channel Path Identifier 3
00000014	00			4286+PMCWCHP4 DC	X'00' IN Word 4, bits 0-7 - Channel Path Identifier 4
00000015	00			4287+PMCWCHP5 DC	X'00' IN Word 4, bits 8-15 - Channel Path Identifier 5
00000016	00			4288+PMCWCHP6 DC	X'00' IN Word 4, bits 16-23 - Channel Path Identifier 6
00000017	00			4289+PMCWCHP7 DC	X'00' IN Word 4, bits 24-31 - Channel Path Identifier 7
00000018				4290+PMCWRES1 DC	0XL4'00' Word 6, bits 0-31 - reserved or pre-z systems
00000018	000000			4291+PMCWRES2 DC	XL3'00' Word 6, bits 0-23 - reserved on z systems
0000001B	00			4292+PMCWEXC DC	X'00' Word 6, bits 24-28 - reserved
		00000004	00000001	4293+PMCWB EQU	X'04' RW Word 6, bit 29 - Measurement Block Format Control
		00000002	00000001	4294+PMCWX EQU	X'02' RW Word 6, bit 30 - Extended Measurement Word Mode Enable
		00000001	00000001	4295+PMCWS EQU	X'01' RW Word 6, bit 31 - Concurrent Sense Enable
0000001C	00000000	00000000		4297+SCHSCSW DC	XL12'00' Words 7-9 - Subchannel Status Word (See DSECT SCSW)
00000028				4298+SCHMDA3 DC	0XL12'00' Words 10-12 - Model Dependent Area on pre-z systems
00000028	00000000	00000000		4299+SCHMBA DC	AD(0) RW Words 10,11 - Measurement Block Address
00000030	00000000			4300+SCHMDA1 DC	XL4'00' Word 12 - Model Dependent Area on z systems
		00000034	00000001	4301+SCHIBL EQU	*-SCHIB Length of SCHIB

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				4304 *****	
				4305 *          SCSW DSECT	
				4306 *****	
				4308          DSECTS NAME=SCSW	
00000000	00			4310+SCSW     DSECT Subchannel	Status Word
				4311+SCSWFLAG DC	X'00' Flags
		000000F0	00000001	4312+SCSWKEYM EQU	X'F0' Storage Key Mask of subchannel storage key
		00000008	00000001	4313+SCSWSUSC EQU	X'08' Suspend Control
		00000004	00000001	4314+SCSWESWF EQU	X'04' Extended Status Word Format
		00000003	00000001	4315+SCSWDCCM EQU	X'03' Deferred condiont code mask
		00000000	00000001	4316+SCSWDCC0 EQU	X'00' Normal I/O interruption
		00000001	00000001	4317+SCSWDCC1 EQU	X'01' Deferred condition code is 1
		00000003	00000001	4318+SCSWDCC3 EQU	X'03' Deferred condition code is 3
00000001	00			4320+SCSWCTLS DC	X'00' General Controls
		00000080	00000001	4321+SCSWCCWF EQU	X'80' CCW Format control when ...
		00000040	00000001	4322+SCSWCCWP EQU	X'40' CCW Prefetch Control
		00000020	00000001	4323+SCSWISIC EQU	X'20' Initial-Status-Interruption Control
		00000010	00000001	4324+SCSWALKC EQU	X'10' Address-Limit-Checking Control
		00000008	00000001	4325+SCSWSSIC EQU	X'08' Suppress suspended interruption
		00000004	00000001	4326+SCSW0CC EQU	X'04' Zero-Condition Code
		00000002	00000001	4327+SCSWECWC EQU	X'02' Extended Control Word control
		00000001	00000001	4328+SCSWPNOP EQU	X'01' Path Not Operational
00000002	00			4330+SCSW1     DC	X'00' Control Byte 1
		00000070	00000001	4331+SCSWFM EQU	X'70' Functional Control Mask
		00000040	00000001	4332+SCSWFS EQU	X'40' Function Control - Start Function
		00000020	00000001	4333+SCSWFH EQU	X'20' Function Control - Halt Function
		00000010	00000001	4334+SCSWFC EQU	X'10' Function Control - Clear Function
		00000008	00000001	4335+SCSWARP EQU	X'08' Activity Control - Resume pending
		00000004	00000001	4336+SCSWASP EQU	X'04' Activity Control - Start pending
		00000002	00000001	4337+SCSWAHP EQU	X'02' Activity Control - Halt pending
		00000001	00000001	4338+SCSWACP EQU	X'01' Activity Control - Clear pending
00000003	00			4339+SCSW2     DC	X'00' Control Byte 2
		00000080	00000001	4340+SCSWASA EQU	X'80' Activity Control - Subchannel Active
		00000040	00000001	4341+SCSWADA EQU	X'40' Activity Control - Device Active
		00000020	00000001	4342+SCSWASUS EQU	X'20' Activity Control - Suspended
		00000010	00000001	4343+SCSWASAS EQU	X'10' Status Control - Alert Status
		00000008	00000001	4344+SCSWSINT EQU	X'08' Status Control - Intermediate Status
		00000004	00000001	4345+SCSWSPRI EQU	X'04' Status Control - Primary Status
		00000002	00000001	4346+SCSWSSEC EQU	X'02' Status Control - Secondary Status
		00000001	00000001	4347+SCSWSPEN EQU	X'01' Status Control - Status Pending
00000004	00000000			4349+SCSWCCW DC	A(0) CCW Address
00000008	00			4351+SCSWUS     DC	X'00' Unit Status
		00000080	00000001	4352+SCSWATTN EQU	X'80' Attention
		00000040	00000001	4353+SCSWSM EQU	X'40' Status modifier
		00000020	00000001	4354+SCSWCUE EQU	X'20' Control-unit end
		00000010	00000001	4355+SCSWBUSY EQU	X'10' Busy
		00000008	00000001	4356+SCSWCE EQU	X'08' Channel end
		00000004	00000001	4357+SCSWDE EQU	X'04' Device end
		00000002	00000001	4358+SCSWUC EQU	X'02' Unit check
		00000001	00000001	4359+SCSWUX EQU	X'01' Unit exception



LOC	OBJECT CODE	ADDR1	ADDR2	STMT
-----	-------------	-------	-------	------

```

4375 *****
4376 *          (other DSECTS needed by SATK)
4377 *****

```

```
4379      DSECTS PRINT=OFF,NAME=(ASA,CCW0,CCW1,CSW)
4605      PRINT ON
```

```
4607 ****
4608 *      Register equates
4609 ****
```

00000000	00000001	4611	R0	EQU	0
00000001	00000001	4612	R1	EQU	1
00000002	00000001	4613	R2	EQU	2
00000003	00000001	4614	R3	EQU	3
00000004	00000001	4615	R4	EQU	4
00000005	00000001	4616	R5	EQU	5
00000006	00000001	4617	R6	EQU	6
00000007	00000001	4618	R7	EQU	7
00000008	00000001	4619	R8	EQU	8
00000009	00000001	4620	R9	EQU	9
0000000A	00000001	4621	R10	EQU	10
0000000B	00000001	4622	R11	EQU	11
0000000C	00000001	4623	R12	EQU	12
0000000D	00000001	4624	R13	EQU	13
0000000E	00000001	4625	R14	EQU	14
0000000F	00000001	4626	R15	EQU	15

4628                      END



SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
ASA	4	000000	512	4383	3578
ASBEGIN	U	000000	1	4384	4389 4431 4467 4476 4494 4501 4507 4511 4515 4521 4538
ASEND	U	000200	1	4537	4538
ASLENGTH	U	000200	1	4538	
ATESTTAB	A	000610	4	3917	3622
BAD66PSW	D	000328	8	3711	3686
BAD77PSW	D	000338	8	3712	3688
BAD88PSW	D	000348	8	3713	3690
BAD99PSW	D	000358	8	3714	3692
BCEXTCOD	H	00001A	2	4401	
BCIOCOD	H	00003A	2	4409	
BCMCKCOD	H	000032	2	4407	
BCPGMCOD	H	00002A	2	4405	
BCSVCCOD	H	000022	2	4403	
BEGIN	U	000200	1	3585	3555
BEGIN0	I	000246	4	3620	3608
CAW	F	000048	4	4413	
CAWADDR	R	000049	3	4416	
CAWKEY	X	000048	1	4414	
CAWSUSP	U	000008	1	4415	
CC	U	000040	1	3901	3962 3970 3971 3972 3981 3982 3991 4002 4003 4012 4013 4029 4030 4038 4039 4548
CCW0	4	000000	8	4542	4548
CCW0ADDR	R	000001	3	4544	
CCW0CNT	H	000006	2	4547	
CCW0CODE	X	000000	1	4543	
CCW0FLGS	X	000004	1	4545	
CCW0L	U	000008	1	4548	
CCW1	4	000000	8	4560	4565
CCW1ADDR	A	000004	4	4564	
CCW1CNT	H	000002	2	4563	
CCW1CODE	X	000000	1	4561	
CCW1FLGS	X	000001	1	4562	
CCW1L	U	000008	1	4565	
CCWCC	U	000040	1	4552	
CCWCD	U	000080	1	4551	
CCWIDA	U	000004	1	4556	
CCWPCI	U	000008	1	4555	
CCWSKIP	U	000010	1	4554	
CCWSLI	U	000020	1	4553	
CCWSUSP	U	000002	1	4557	
CHANID	F	0000A8	4	4468	
CHKZARCH	I	000228	4	3604	3596
CODE	2	000000	8228	3530	
CPUID	U	00031B	1	4540	
CSW	F	000040	8	4412	
CSWATTN	U	000080	1	4582	
CSWBUSY	U	000010	1	4585	
CSWCCTL	U	000004	1	4597	
CSWCCW	R	000001	3	4579	
CSWCDAT	U	000008	1	4596	
CSWCE	U	000008	1	4586	3818
CSWCHNG	U	000001	1	4599	
CSWCNT	H	000006	2	4601	
CSWCS	X	000005	1	4591	
CSWCUE	U	000020	1	4584	

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
CSWDCC0	U	000000	1	4575	
CSWDCC1	U	000001	1	4576	
CSWDCC3	U	000003	1	4577	
CSWDCCM	U	000003	1	4574	
CSWDE	U	000004	1	4587	3818
CSWFLAG	X	000000	1	4569	
CSWFMT	4	000000	8	4568	4602
CSWFMTL	U	000008	1	4602	
CSWICTL	U	000002	1	4598	
CSWIL	U	000040	1	4593	
CSWKEYM	U	0000F0	1	4570	
CSWLOG	U	000004	1	4573	
CSWPCI	U	000080	1	4592	
CSWPRGM	U	000020	1	4594	
CSWPROT	U	000010	1	4595	
CSWSM	U	000040	1	4583	
CSWSUSP	U	000008	1	4572	
CSWUC	U	000002	1	4588	
CSWUS	X	000004	1	4581	
CSWUX	U	000001	1	4589	
DOSENSE	I	0003DE	4	3773	3673
DOTEST	I	00027C	4	3644	3633
DX	U	000063	1	3912	3971 4029
E7TEST	J	000000	8228	3530	3533 3540 3553 3557 3584 3897 4087 3577
ENADEV	I	00038A	4	3742	3723
ENAOKAY	I	0003DC	2	3767	3756
ERRTEST	I	0002B8	4	3671	3665
EXCP	I	0003E2	4	3774	3649
EXTCPUAD	H	000084	2	4433	
EXTICODE	H	000086	2	4434	
EXTIPARM	F	000080	4	4432	
EXTNPSW	F	000058	8	4422	
EXTOPSW	F	000018	8	4394	4400
FAIL	I	0002F8	6	3697	3687 3689 3691 3693 3695
FAILCPU0	I	0002D0	4	3686	3597 3598 3606 3614
FAILDEV	I	0002E0	4	3690	3747 3757 3762
FAILIO	I	0002E8	4	3692	3786 3809 3819
FAILPSW	D	000318	8	3705	3694
FAILSCH	I	0002D8	4	3688	3655
FAILTEST	I	0002F0	4	3694	3662 3668 3672
FIND0008	A	0003D4	4	3764	3742
FINL0008	H	000394	2	3745	3761
FINM0008	A	0003D8	4	3765	3760
FINN0008	H	0003C2	2	3758	3749 3751
GOODPSW	D	000308	8	3704	3638
IDA	U	000004	1	3903	3973 3983 3991 3992 4004 4014
IIRB0011	F	0005A4	4	3882	3880 3881
IMAGE	1	000000	8228	0	
INIT	I	000368	4	3720	3620
IOCB	4	000000	48	4160	4184 3579
IOCBCAW	A	000018	4	4180	
IOCBCM	X	000009	1	4168	
IOCBCS	X	00000B	1	4171	
IOCBCT	X	00000D	1	4173	
IOCBDEV	H	000004	2	4165	3750
IOCBDID	F	000000	4	4162	3651 3753 3782

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES				
IOCBDV	H	000002	2	4164					
IOCBIRB	A	000020	8	4182	3787				
IOCBL	U	000030	1	4184					
IOCBORB	A	000018	8	4181	3721	3784			
IOCBRCNT	H	000016	2	4179	3816				
IOCBSC	X	00000E	1	4174	3780	3811	3813		
IOCBSCCW	A	000010	4	4176	3815				
IOCBSCNT	F	000014	4	4177					
IOCBSIB	A	000028	8	4183	3652	3743			
IOCBST	H	00000A	2	4169	3781	3812			
IOCBUM	X	000008	1	4167					
IOCBUS	X	00000A	1	4170	3818				
IOCBUT	X	00000C	1	4172					
IOCBWAIT	X	00000F	1	4175					
IOCBZERO	H	000006	2	4166	3781				
IOCB_A80	A	000574	4	3868	3720				
IOELADDR	F	0000AC	4	4469					
IOICODE	H	0000BA	2	4474					
IOIID	F	0000C0	4	4479					
IOINIT	I	00037C	4	3731	3722				
IOIPARM	F	0000BC	4	4478					
IOMK0007	F	000384	4	3733	3731	3732			
ION0010	3	000438	16	3797	3794				
IONPSW	F	000078	8	4426					
IOOPSW	F	000038	8	4398	4408				
IORB0011	X	000604	12	3884	3879				
IOS0010	X	000448	16	3798	3793	3801			
IOSSID	F	0000B8	4	4477	3804				
IOWT0009	H	000414	2	3791	3805	3808	3814		
IPLCCW1	F	000008	8	4386					
IPLCCW2	F	000010	8	4387					
IPLPSW	F	000000	8	4385					
IRB	4	000000	96	4239	4243	4245	3788		
IRBECW	X	000020	32	4242					
IRBEMW	X	000040	32	4244					
IRBESW	X	00000C	20	4241					
IRBL	U	000040	1	4243					
IRBSCSW	X	000000	12	4240	3811	3812	3815	3816	
IRBXL	U	000060	1	4245					
IRST0010	H	000458	2	3800	3797				
LCHANLOG	F	0000B0	4	4470					
LR	U	000047	1	3911	3972	3982	4003	4013	4030
MCKLOG	F	000100	4	4502					
MCKNPSW	F	000070	8	4425					
MCKOPSW	F	000030	8	4397	4406				
MEASUREB	X	0000B9	1	4473					
MKARCHMD	X	0000A3	1	4461					
MKARS	F	000120	4	4500					
MKCLKCMP	F	0000E0	8	4486					
MKCPUTIM	F	0000D8	8	4485					
MKCRS	F	0001C0	4	4505					
MKDMGCOD	F	0000F4	4	4489					
MKFAILA	F	0000F8	4	4491					
MKFPRS	D	000160	8	4503					
MKICODE	F	0000E8	4	4487					
MKLOGOUT	F	000100	4	4493					

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
MKMODEL	F	0000FC	4	4492	
MKXSAA	F	0000D4	4	4484	
MONCLS	H	000094	2	4449	
MONCODE	F	00009C	4	4456	
MONNUMBR	X	000095	1	4451	
MPGACCID	X	0000A2	1	4459	
MSG	I	0004A0	4	3829	3630
MSGCMD	C	0004EA	9	3855	3842 3843
MSGMSG	C	0004F3	128	3856	3836 3853 3834
MSGMVC	I	0004E4	6	3853	3840
MSGOK	I	0004B6	2	3838	3835
MSGRET	I	0004D0	4	3849	3846
MSGSAVE	F	0004D8	4	3852	3832 3849
NKGRS	F	000180	4	4504	
NUMTESTS	U	000009	1	3944	3917
ORB	4	000000	32	4192	4222 4230 3582
ORB1_0	X	000004	1	4195	
ORB1_8	X	000005	1	4202	3776
ORBA	U	000010	1	4206	
ORBB	U	000004	1	4208	
ORBC	U	000004	1	4198	
ORBCCW	A	000008	4	4220	3774
ORBCSS	X	00000C	1	4224	
ORBCU	X	00000E	1	4227	
ORBD	U	000040	1	4215	
ORBF	U	000080	1	4203	3776
ORBH	U	000002	1	4209	3776
ORBI	U	000020	1	4205	
ORBKEYM	U	0000F0	1	4196	
ORBL	U	000080	1	4213	
ORBLLEN	U	00000C	1	4222	
ORBLPM	X	000006	1	4211	
ORBM	U	000002	1	4199	
ORBP	U	000040	1	4204	
ORBPARM	F	000000	4	4193	
ORBPGM	X	00000E	1	4226	
ORBRV25	U	00007E	1	4217	
ORBRV26	U	00003E	1	4216	
ORBRV3	U	00007F	1	4214	
ORBRV4	U	000080	1	4221	
ORBRV5	X	00000D	1	4225	
ORBRV6	X	00000F	1	4228	
ORBRV7	X	000010	16	4229	
ORBS	U	000008	1	4197	
ORBT	U	000001	1	4210	
ORBU	U	000008	1	4207	
ORBX	U	000001	1	4218	
ORBXLEN	U	000020	1	4230	
ORBY	U	000001	1	4200	
ORRB1_24	X	000007	1	4212	3777
PCFETO	A	0000C4	4	4480	
PERACCID	X	0000A1	1	4458	
PERADDR	F	000098	4	4455	
PERCODE	X	000096	1	4452	
PERCODMK	U	0000F0	1	4453	
PFX	U	0000E7	1	3915	3962 3970 3981 3991 4002 4012 4022







SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
SCSWFS	U	000040	1	4332	
SCSWICTL	U	000002	1	4368	
SCSWIL	U	000040	1	4363	
SCSWISIC	U	000020	1	4323	
SCSWKEYM	U	0000F0	1	4312	
SCSWL	U	00000C	1	4372	
SCSWPCI	U	000080	1	4362	
SCSWPNOP	U	000001	1	4328	
SCSWPRGM	U	000020	1	4364	
SCSWPROT	U	000010	1	4365	
SCSWSAS	U	000010	1	4343	
SCSWSINT	U	000008	1	4344	
SCSWSM	U	000040	1	4353	
SCSWSPEN	U	000001	1	4347	
SCSWSPRI	U	000004	1	4345	3813
SCSWSSEC	U	000002	1	4346	
SCSWSSIC	U	000008	1	4325	
SCSWSUSC	U	000008	1	4313	
SCSWUC	U	000002	1	4358	
SCSWUS	X	000008	1	4351	3667 3671 3812
SCSWUX	U	000001	1	4359	
SEEK	U	000007	1	3908	4038
SENSEPGM	R	0006D0	1	3955	3773
SIDEQ	U	000031	1	3913	4039
SLI	U	000020	1	3902	3955 3962 3963 3970 3971 3972 3973 3981 3982 3983 3991 3992 4002 4003 4004 4012 4013 4014 4022 4041
SNS	U	000004	1	3905	3955
SNSBYTES	X	000A80	32	4048	3955
SSARCHMD	X	0000A3	1	4460	
SSARS	F	000120	4	4516	
SSCLKCMP	F	0000E0	8	4510	
SSCPUTIM	F	0000D8	8	4509	
SSCRS	F	0001C0	4	4519	
SSFPRS	D	000160	8	4517	
SSGRS	F	000180	4	4518	
SSMODEL	F	00010C	4	4514	
SSPREFIX	F	000108	4	4513	
SSPSW	F	000100	8	4512	
SSXSAA	A	0000D4	4	4508	
STFLDATA	F	0000C8	4	4481	
SVCICODE	H	00008A	2	4440	
SVCIID	F	000088	4	4436	
SVCIILC	X	000089	1	4438	
SVCIILCM	U	00000C	1	4439	
SVCNPSW	F	000060	8	4423	
SVCOPSW	F	000020	8	4395	4402
T1_3EBUF	X	000AEC	256	4059	3963
T1_CHPGM	R	000718	1	3962	3930
T1_DESC	C	0006D8	62	3959	3960 3930
T1_E7DAT	X	000AA0	12	4052	4058 3962
T1_E7LEN	U	00004C	1	4058	3962
T1_MSGLN	U	00003E	1	3960	3930
T2_06BUF	X	000C4C	10	4066	3973 3974
T2_06IDA	A	0007A0	8	3974	3973
T2_47DAT	X	000C3C	16	4065	3972
T2_63DAT	X	000C2C	16	4064	3971

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
T2_CHPGM	R	000780	1	3970	3933
T2_DESC	C	000728	85	3967	3968 3933
T2_E7DAT	X	000BEC	64	4063	3970
T2_MSGLN	U	000055	1	3968	3933
T3_06BUF	X	000CA6	10	4076	3983 3984
T3_06IDA	A	000818	8	3984	3983
T3_47DAT	X	000C96	16	4075	3982
T3_CHPGM	R	000800	1	3981	3934
T3_DESC	C	0007A8	86	3978	3979 3934
T3_E7DAT	X	000C56	64	4070	3981
T3_MSGLN	U	000056	1	3979	3934
T4_3EBUF	X	000CB0	256	4081	3992 3995
T4_3EIDA	A	000898	8	3995	3992
T4_CHPGM	R	000878	1	3991	3935
T4_DESC	C	000820	86	3988	3989 3935
T4_E7DAT	X	001FD8	76	4088	3991
T4_E7DAT_PART1	X	001FD8	40	4089	3993
T4_E7DAT_PART1_LEN	U	000028	1	4085	4086 4087 4089
T4_E7DAT_PART2	X	002000	36	4093	3994
T4_E7DAT_PART2_LEN	U	000024	1	4086	4093
T4_E7DAT_TOTAL_LEN	U	00004C	1	4084	4086 4088
T4_E7IDA	A	000888	8	3993	3991
T4_MSGLN	U	000056	1	3989	3935
T4_ORG	U	000DB0	1	4083	4097
T5_06BUF	X	000E00	10	4108	4004 4005
T5_06IDA	A	000928	8	4005	4004
T5_47DAT	X	000DF0	16	4107	4003
T5_CHPGM	R	000910	1	4002	3936
T5_DESC	C	0008A0	111	3999	4000 3936
T5_E7DAT	X	000DB0	64	4102	4002
T5_MSGLN	U	00006F	1	4000	3936
T6_47DAT	X	000E4A	16	4117	4013
T6_86BUF	X	000E5A	10	4118	4014 4015
T6_86IDA	A	0009A0	8	4015	4014
T6_CHPGM	R	000988	1	4012	3937
T6_DESC	C	000930	81	4009	4010 3937
T6_E7DAT	X	000E0A	64	4112	4012
T6_MSGLN	U	000051	1	4010	3937
T7_CHPGM	R	0009D8	1	4022	3938
T7_DESC	C	0009A8	47	4019	4020 3938
T7_E7DAT	X	000E64	12	4123	4128 4022
T7_E7LEN	U	000040	1	4128	4022
T7_MSGLN	U	00002F	1	4020	3938
T8_CHPGM	R	000A10	1	4029	3939
T8_DESC	C	0009E0	44	4026	4027 3939
T8_DXDAT	X	000EA4	16	4132	4133 4029
T8_DXLLEN	U	000010	1	4133	4029
T8_LRDAT	X	000EB4	16	4135	4136 4030
T8_LRLLEN	U	000010	1	4136	4030
T8_MSGLN	U	00002C	1	4027	3939
T8_WDDAT	X	000EC4	8	4138	4139 4031
T8_WDLLEN	U	000008	1	4139	4031
T9_CHPGM	R	000A60	1	4038	3940

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
T9_DESC	C	000A28	51	4035	4036 3940
T9_MSGLN	U	000033	1	4036	3940
T9_RDDAT	C	000ED7	80	4149	4150 4041
T9_RDLEN	U	000050	1	4150	4041
T9_SICCW	R	000A68	1	4039	4040
T9_SIDAT	X	000ED2	5	4146	4147 4039
T9_SILEN	U	000005	1	4147	4039
T9_SKDAT	X	000ECC	6	4143	4144 4038
T9_SKLEN	U	000006	1	4144	4038
TESTLEN	U	000014	1	3931	3944 3629 3634
TESTLOOP	I	00024E	4	3624	3636
TESTNEXT	I	000270	4	3634	3627
TESTNUM	U	000200	1	3919	3587 3646 3697
TESTOK	I	0002C4	4	3675	3669
TESTONLY	R	000FFF	1	3898	3624 3626
TESTR14	A	0002CC	4	3678	3644 3675
TESTTAB	A	000618	4	3928	3931 3944 3917
TESTTHIS	I	000260	4	3629	3625
TIC	U	000008	1	3909	4040
TIMER	F	000050	4	4419	
TTDES	F	000054	4	4420	
UA0	F	000010	8	4392	
UA1	F	00004C	4	4417	
UA2	F	0000A4	4	4462	
UA3	F	0000B4	4	4471	
UA4	X	0000B8	1	4472	
UA5	X	0000CC	8	4482	
UA6	X	0000EC	8	4488	
UA7	F	000118	8	4499	
UA8	X	000180	32	4528	
WD	U	000005	1	3906	4031
WKSTORG	U	000610	1	3896	3899
WPSW0010	3	000428	16	3796	3795
ZARCHOK	I	000232	4	3608	3595
ZBRKADDR	A	000110	8	4498	
ZEMONCNT	F	00010C	4	4497	
ZEMONCTR	A	000100	8	4495	
ZEMONSIZ	F	000108	4	4496	
ZEXTNPSW	X	0001B0	16	4531	
ZEXTOPSW	X	000130	16	4523	
ZIONPSW	X	0001F0	16	4535	
ZIOOPSW	X	000170	16	4527	
ZMCKNPSW	X	0001E0	16	4534	
ZMCKOPSW	X	000160	16	4526	
ZMKFAILA	F	0000F8	8	4490	
ZMONCODE	F	0000B0	8	4465	
ZPGMNPSW	X	0001D0	16	4533	
ZPGMOPSW	X	000150	16	4525	
ZPGMTRX	F	0000A8	8	4464	
ZRSTNPSW	X	0001A0	16	4530	
ZRSTOPSW	X	000120	16	4522	
ZSASDISP	U	0011C0	1	4536	
ZSVCNPSW	X	0001C0	16	4532	
ZSVCOPSW	X	000140	16	4524	
=AL2(L'MSGMSG)	R	0006CE	2	3948	3834
=H'0'	H	0006CC	2	3947	3829

[illegible]

DESC	SYMBOL	SIZE	POS	ADDR
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Entry: 0

Image	IMAGE	8228	0000-2023	0000-2023
Region	CODE	8228	0000-2023	0000-2023
CSECT	E7TEST	8228	0000-2023	0000-2023

STMT

FILE NAME

```
1 C:\Users\Fish\Documents\Visual Studio 2008\Projects\MyProjects\ASMA-0\E7Prefix\E7Prefix.asm
2 C:\Users\Fish\Documents\Visual Studio 2008\Projects\Hercules\_Git\_Harold\SATK-0\srcasm\satk.mac
```

```
** NO ERRORS FOUND **
```