



LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				37 PRINT OFF
				3418 PRINT ON
				3420 *****
				3421 * SATK prolog stuff...
				3422 *****
				3424 ARCHLVL ZARCH=NO,MNOTE=NO
				3426+\$AL OPSYN AL
				3427+\$ALR OPSYN ALR
				3428+\$B OPSYN B
				3429+\$BAS OPSYN BAS
				3430+\$BASR OPSYN BASR
				3431+\$BC OPSYN BC
				3432+\$BCTR OPSYN BCTR
				3433+\$BE OPSYN BE
				3434+\$BH OPSYN BH
				3435+\$BL OPSYN BL
				3436+\$BM OPSYN BM
				3437+\$BNE OPSYN BNE
				3438+\$BNH OPSYN BNH
				3439+\$BNL OPSYN BNL
				3440+\$BNM OPSYN BNM
				3441+\$BNO OPSYN BNO
				3442+\$BNP OPSYN BNP
				3443+\$BNZ OPSYN BNZ
				3444+\$BO OPSYN BO
				3445+\$BP OPSYN BP
				3446+\$BXLE OPSYN BXLE
				3447+\$BZ OPSYN BZ
				3448+\$CH OPSYN CH
				3449+\$L OPSYN L
				3450+\$LH OPSYN LH
				3451+\$LM OPSYN LM
				3452+\$LPSW OPSYN LPSW
				3453+\$LR OPSYN LR
				3454+\$LTR OPSYN LTR
				3455+\$NR OPSYN NR
				3456+\$SL OPSYN SL
				3457+\$SLR OPSYN SLR
				3458+\$SR OPSYN SR
				3459+\$ST OPSYN ST
				3460+\$STM OPSYN STM
				3461+\$X OPSYN X
				3462+\$AHI OPSYN AHI
				3463+\$B OPSYN J
				3464+\$BC OPSYN BRC
				3465+\$BE OPSYN JE
				3466+\$BH OPSYN JH
				3467+\$BL OPSYN JL
				3468+\$BM OPSYN JM
				3469+\$BNE OPSYN JNE





LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				3511 *****
				3512 * The actual "CLCLE04" program itself...
				3513 *****
				3514 *
				3515 * Architecture Mode: 390
				3516 * Addressing Mode: 31-bit
				3517 * Register Usage:
				3518 *
				3519 * R0 (work)
				3520 * R1 I/O device used by ENADEV and RAWIO macros
				3521 * R2 First base register
				3522 * R3 IOCB pointer for ENADEV and RAWIO macros
				3523 * R4 IO work register used by ENADEV and RAWIO
				3524 * R5-R7 (work)
				3525 * R8 ORB pointer
				3526 * R9 Second base register
				3527 * R10-R13 (work)
				3528 * R14 Subroutine call
				3529 * R15 Secondary Subroutine call or work
				3530 *
				3531 *****
00000200		00000000		3533 USING ASA,R0 Low core addressability
00000200		00000200		3534 USING BEGIN,R2 FIRST Base Register
00000200		00001200		3535 USING BEGIN+4096,R9 SECOND Base Register
00000200		00000000		3536 USING IOCB,R3 SATK Device I/O Control Block
00000200		00000000		3537 USING ORB,R8 ESA/390 Operation Request Block
00000200	0520			3539 BEGIN BALR R2,0 Initalize FIRST base register
00000202	0620			3540 BCTR R2,0 Initalize FIRST base register
00000204	0620			3541 BCTR R2,0 Initalize FIRST base register
00000206	5020 203C		0000023C	3542 ST R2,SAVER2
0000020A	4190 2800		00000800	3544 LA R9,2048(,R2) Initalize SECOND base register
0000020E	4190 9800		00000800	3545 LA R9,2048(,R9) Initalize SECOND base register
00000212	45E0 2A20		00000C20	3547 BAL R14,INIT Initalize Program
				3548 *
				3549 ** Run the test...
				3550 *
00000216	45E0 2044		00000244	3551 BAL R14,TEST91 Time CLCLE instruction (speed test)
				3552 *



LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				3573	*****
				3574	* TEST91 Time CLCLE instruction (speed test)
				3575	*****
00000244	91FF 9FFD		000021FD	3577	TEST91 TM TIMEOPT,X'FF' Is timing tests option enabled?
00000248	078E			3578	BZR R14 No, skip timing tests
0000024A	4150 2C00		00000E00	3580	LA R5,CLEPERF Point R5 --> testing control table
0000024E		00000000		3581	USING CLETEST,R5 What each table entry looks like
				3582	*
		0000024E	00000001	3583	TST91LOP EQU * save current pref table base
0000024E	5050 2040		00000240	3584	ST R5,SAVER5
				3585	*
00000252	4360 5000		00000000	3586	IC R6,TNUM Set test number
00000256	4260 9FFE		000021FE	3587	STC R6,TESTNUM
0000025A	4360 5001		00000001	3588	IC R6,TSUBNUM Set sub test number
0000025E	4260 9FFF		000021FF	3589	STC R6,SUBTEST
				3591	
				3592	** First, make sure we start clean!
				3593	** Initialize operand data (move data to testing address)
				3594	*
00000262	58A0 5014		00000014	3595	L R10,OP1WHERE Where to move operand-1 data to
00000266	58B0 5008		00000008	3596	L R11,OP1LEN operand-1 length
0000026A	5860 5004		00000004	3597	L R6,OP1DATA Where op1 data is right now
0000026E	5870 5008		00000008	3598	L R7,OP1LEN How much of it there is
00000272	0EA6			3599	MVCL R10,R6
				3600	*
00000274	58C0 501C		0000001C	3601	L R12,OP2WHERE Where to move operand-2 data to
00000278	58D0 5010		00000010	3602	L R13,OP2LEN How much of it there is
0000027C	5860 500C		0000000C	3603	L R6,OP2DATA Where op2 data is right now
00000280	5870 5010		00000010	3604	L R7,OP2LEN How much of it there is
00000284	0EC6			3605	MVCL R12,R6
				3606	
				3607	*
				3608	** Next, time the overhead...
				3609	*
00000286	5870 2B68		00000D68	3610	L R7,NUMLOOPS
0000028A	B205 2B70		00000D70	3611	STCK BEGCLOCK
0000028E	0560			3612	BALR R6,0
				3613	
00000290	98AD 5014		00000014	3614	LM R10,R13,OPSWHERE
00000294	4710 2098		00000298	3615	BC B'0001',*+4 include not finished
00000298	98AD 5014		00000014	3616	LM R10,R13,OPSWHERE
0000029C	4710 20A0		000002A0	3617	BC B'0001',*+4 include not finished
				3618	* .....ETC.....
				3619	PRINT OFF
				3816	PRINT ON
				3817	*
000005A8	98AD 5014		00000014	3818	LM R10,R13,OPSWHERE
000005AC	4710 23B0		000005B0	3819	BC B'0001',*+4 include not finished
000005B0	98AD 5014		00000014	3820	LM R10,R13,OPSWHERE

LOC	OBJECT CODE	ADDR1	ADDR2	STMT			
000005B4	4710 23B8		000005B8	3821	BC	B'0001',*+4	include not finished
				3822			
000005B8	0676			3823	BCTR	R7,R6	
000005BA	B205 2B78		00000D78	3824	STCK	ENDCLOCK	
000005BE	45F0 2994		00000B94	3825	BAL	R15,CALCDUR	
000005C2	D207 2B88 2B80	00000D88	00000D80	3826	MVC	OVERHEAD,DURATION	
				3827 *			
				3828 **		Now do the actual timing run...	
				3829 *			
000005C8	5870 2B68		00000D68	3830	L	R7,NUMLOOPS	
000005CC	B205 2B70		00000D70	3831	STCK	BEGCLOCK	
000005D0	0560			3832	BALR	R6,0	
000005D2	98AD 5014		00000014	3833	LM	R10,R13,OPSWHERE	
000005D6	A9AC 0000		00000000	3834	CLCLE	R10,R12,0	
000005DA	4710 23D6		000005D6	3835	BC	B'0001',*-4	not finished?
000005DE	98AD 5014		00000014	3836	LM	R10,R13,OPSWHERE	
000005E2	A9AC 0000		00000000	3837	CLCLE	R10,R12,0	
000005E6	4710 23E2		000005E2	3838	BC	B'0001',*-4	not finished?
				3839 *		.....ETC.....	
				3840 *	PRINT	OFF	
				3841 *			96 LM; CLCLE; BC instruction sets
000005EA	98AD 5014		00000014	3842	LM	R10,R13,OPSWHERE	
000005EE	A9AC 0000		00000000	3843	CLCLE	R10,R12,0	
000005F2	4710 23EE		000005EE	3844	BC	B'0001',*-4	
000005F6	98AD 5014		00000014	3845	LM	R10,R13,OPSWHERE	
000005FA	A9AC 0000		00000000	3846	CLCLE	R10,R12,0	
000005FE	4710 23FA		000005FA	3847	BC	B'0001',*-4	
00000602	98AD 5014		00000014	3848	LM	R10,R13,OPSWHERE	
00000606	A9AC 0000		00000000	3849	CLCLE	R10,R12,0	
0000060A	4710 2406		00000606	3850	BC	B'0001',*-4	
0000060E	98AD 5014		00000014	3851	LM	R10,R13,OPSWHERE	
00000612	A9AC 0000		00000000	3852	CLCLE	R10,R12,0	
00000616	4710 2412		00000612	3853	BC	B'0001',*-4	
0000061A	98AD 5014		00000014	3854	LM	R10,R13,OPSWHERE	
0000061E	A9AC 0000		00000000	3855	CLCLE	R10,R12,0	
00000622	4710 241E		0000061E	3856	BC	B'0001',*-4	
00000626	98AD 5014		00000014	3857	LM	R10,R13,OPSWHERE	
0000062A	A9AC 0000		00000000	3858	CLCLE	R10,R12,0	
0000062E	4710 242A		0000062A	3859	BC	B'0001',*-4	
00000632	98AD 5014		00000014	3860	LM	R10,R13,OPSWHERE	
00000636	A9AC 0000		00000000	3861	CLCLE	R10,R12,0	
0000063A	4710 2436		00000636	3862	BC	B'0001',*-4	
0000063E	98AD 5014		00000014	3863	LM	R10,R13,OPSWHERE	
00000642	A9AC 0000		00000000	3864	CLCLE	R10,R12,0	
00000646	4710 2442		00000642	3865	BC	B'0001',*-4	
0000064A	98AD 5014		00000014	3866	LM	R10,R13,OPSWHERE	
0000064E	A9AC 0000		00000000	3867	CLCLE	R10,R12,0	
00000652	4710 244E		0000064E	3868	BC	B'0001',*-4	
00000656	98AD 5014		00000014	3869	LM	R10,R13,OPSWHERE	
0000065A	A9AC 0000		00000000	3870	CLCLE	R10,R12,0	
0000065E	4710 245A		0000065A	3871	BC	B'0001',*-4	
00000662	98AD 5014		00000014	3872	LM	R10,R13,OPSWHERE	



LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
00000666	A9AC	0000		00000000	3873 CLCLE R10,R12,0
0000066A	4710	2466		00000666	3874 BC B'0001',*-4
0000066E	98AD	5014		00000014	3875 LM R10,R13,OPSWHERE
00000672	A9AC	0000		00000000	3876 CLCLE R10,R12,0
00000676	4710	2472		00000672	3877 BC B'0001',*-4
0000067A	98AD	5014		00000014	3878 LM R10,R13,OPSWHERE
0000067E	A9AC	0000		00000000	3879 CLCLE R10,R12,0
00000682	4710	247E		0000067E	3880 BC B'0001',*-4
00000686	98AD	5014		00000014	3881 LM R10,R13,OPSWHERE
0000068A	A9AC	0000		00000000	3882 CLCLE R10,R12,0
0000068E	4710	248A		0000068A	3883 BC B'0001',*-4
00000692	98AD	5014		00000014	3884 LM R10,R13,OPSWHERE
00000696	A9AC	0000		00000000	3885 CLCLE R10,R12,0
0000069A	4710	2496		00000696	3886 BC B'0001',*-4
0000069E	98AD	5014		00000014	3887 LM R10,R13,OPSWHERE
000006A2	A9AC	0000		00000000	3888 CLCLE R10,R12,0
000006A6	4710	24A2		000006A2	3889 BC B'0001',*-4
000006AA	98AD	5014		00000014	3890 LM R10,R13,OPSWHERE
000006AE	A9AC	0000		00000000	3891 CLCLE R10,R12,0
000006B2	4710	24AE		000006AE	3892 BC B'0001',*-4
000006B6	98AD	5014		00000014	3893 LM R10,R13,OPSWHERE
000006BA	A9AC	0000		00000000	3894 CLCLE R10,R12,0
000006BE	4710	24BA		000006BA	3895 BC B'0001',*-4
000006C2	98AD	5014		00000014	3896 LM R10,R13,OPSWHERE
000006C6	A9AC	0000		00000000	3897 CLCLE R10,R12,0
000006CA	4710	24C6		000006C6	3898 BC B'0001',*-4
000006CE	98AD	5014		00000014	3899 LM R10,R13,OPSWHERE
000006D2	A9AC	0000		00000000	3900 CLCLE R10,R12,0
000006D6	4710	24D2		000006D2	3901 BC B'0001',*-4
000006DA	98AD	5014		00000014	3902 LM R10,R13,OPSWHERE
000006DE	A9AC	0000		00000000	3903 CLCLE R10,R12,0
000006E2	4710	24DE		000006DE	3904 BC B'0001',*-4
000006E6	98AD	5014		00000014	3905 LM R10,R13,OPSWHERE
000006EA	A9AC	0000		00000000	3906 CLCLE R10,R12,0
000006EE	4710	24EA		000006EA	3907 BC B'0001',*-4
000006F2	98AD	5014		00000014	3908 LM R10,R13,OPSWHERE
000006F6	A9AC	0000		00000000	3909 CLCLE R10,R12,0
000006FA	4710	24F6		000006F6	3910 BC B'0001',*-4
000006FE	98AD	5014		00000014	3911 LM R10,R13,OPSWHERE
00000702	A9AC	0000		00000000	3912 CLCLE R10,R12,0
00000706	4710	2502		00000702	3913 BC B'0001',*-4
0000070A	98AD	5014		00000014	3914 LM R10,R13,OPSWHERE
0000070E	A9AC	0000		00000000	3915 CLCLE R10,R12,0
00000712	4710	250E		0000070E	3916 BC B'0001',*-4
00000716	98AD	5014		00000014	3917 LM R10,R13,OPSWHERE
0000071A	A9AC	0000		00000000	3918 CLCLE R10,R12,0
0000071E	4710	251A		0000071A	3919 BC B'0001',*-4
00000722	98AD	5014		00000014	3920 LM R10,R13,OPSWHERE
00000726	A9AC	0000		00000000	3921 CLCLE R10,R12,0
0000072A	4710	2526		00000726	3922 BC B'0001',*-4
0000072E	98AD	5014		00000014	3923 LM R10,R13,OPSWHERE
00000732	A9AC	0000		00000000	3924 CLCLE R10,R12,0

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
00000736	4710	2532		00000732	3925 BC B'0001',*-4
0000073A	98AD	5014		00000014	3926 LM R10,R13,OPSWHERE
0000073E	A9AC	0000		00000000	3927 CLCLE R10,R12,0
00000742	4710	253E		0000073E	3928 BC B'0001',*-4
00000746	98AD	5014		00000014	3929 LM R10,R13,OPSWHERE
0000074A	A9AC	0000		00000000	3930 CLCLE R10,R12,0
0000074E	4710	254A		0000074A	3931 BC B'0001',*-4
00000752	98AD	5014		00000014	3932 LM R10,R13,OPSWHERE
00000756	A9AC	0000		00000000	3933 CLCLE R10,R12,0
0000075A	4710	2556		00000756	3934 BC B'0001',*-4
0000075E	98AD	5014		00000014	3935 LM R10,R13,OPSWHERE
00000762	A9AC	0000		00000000	3936 CLCLE R10,R12,0
00000766	4710	2562		00000762	3937 BC B'0001',*-4
0000076A	98AD	5014		00000014	3938 LM R10,R13,OPSWHERE
0000076E	A9AC	0000		00000000	3939 CLCLE R10,R12,0
00000772	4710	256E		0000076E	3940 BC B'0001',*-4
00000776	98AD	5014		00000014	3941 LM R10,R13,OPSWHERE
0000077A	A9AC	0000		00000000	3942 CLCLE R10,R12,0
0000077E	4710	257A		0000077A	3943 BC B'0001',*-4
00000782	98AD	5014		00000014	3944 LM R10,R13,OPSWHERE
00000786	A9AC	0000		00000000	3945 CLCLE R10,R12,0
0000078A	4710	2586		00000786	3946 BC B'0001',*-4
0000078E	98AD	5014		00000014	3947 LM R10,R13,OPSWHERE
00000792	A9AC	0000		00000000	3948 CLCLE R10,R12,0
00000796	4710	2592		00000792	3949 BC B'0001',*-4
0000079A	98AD	5014		00000014	3950 LM R10,R13,OPSWHERE
0000079E	A9AC	0000		00000000	3951 CLCLE R10,R12,0
000007A2	4710	259E		0000079E	3952 BC B'0001',*-4
000007A6	98AD	5014		00000014	3953 LM R10,R13,OPSWHERE
000007AA	A9AC	0000		00000000	3954 CLCLE R10,R12,0
000007AE	4710	25AA		000007AA	3955 BC B'0001',*-4
000007B2	98AD	5014		00000014	3956 LM R10,R13,OPSWHERE
000007B6	A9AC	0000		00000000	3957 CLCLE R10,R12,0
000007BA	4710	25B6		000007B6	3958 BC B'0001',*-4
000007BE	98AD	5014		00000014	3959 LM R10,R13,OPSWHERE
000007C2	A9AC	0000		00000000	3960 CLCLE R10,R12,0
000007C6	4710	25C2		000007C2	3961 BC B'0001',*-4
000007CA	98AD	5014		00000014	3962 LM R10,R13,OPSWHERE
000007CE	A9AC	0000		00000000	3963 CLCLE R10,R12,0
000007D2	4710	25CE		000007CE	3964 BC B'0001',*-4
000007D6	98AD	5014		00000014	3965 LM R10,R13,OPSWHERE
000007DA	A9AC	0000		00000000	3966 CLCLE R10,R12,0
000007DE	4710	25DA		000007DA	3967 BC B'0001',*-4
000007E2	98AD	5014		00000014	3968 LM R10,R13,OPSWHERE
000007E6	A9AC	0000		00000000	3969 CLCLE R10,R12,0
000007EA	4710	25E6		000007E6	3970 BC B'0001',*-4
000007EE	98AD	5014		00000014	3971 LM R10,R13,OPSWHERE
000007F2	A9AC	0000		00000000	3972 CLCLE R10,R12,0
000007F6	4710	25F2		000007F2	3973 BC B'0001',*-4
000007FA	98AD	5014		00000014	3974 LM R10,R13,OPSWHERE
000007FE	A9AC	0000		00000000	3975 CLCLE R10,R12,0
00000802	4710	25FE		000007FE	3976 BC B'0001',*-4

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
00000806	98AD 5014		00000014	3977	LM R10,R13,OPSWHERE
0000080A	A9AC 0000		00000000	3978	CLCLE R10,R12,0
0000080E	4710 260A		0000080A	3979	BC B'0001',*-4
00000812	98AD 5014		00000014	3980	LM R10,R13,OPSWHERE
00000816	A9AC 0000		00000000	3981	CLCLE R10,R12,0
0000081A	4710 2616		00000816	3982	BC B'0001',*-4
0000081E	98AD 5014		00000014	3983	LM R10,R13,OPSWHERE
00000822	A9AC 0000		00000000	3984	CLCLE R10,R12,0
00000826	4710 2622		00000822	3985	BC B'0001',*-4
0000082A	98AD 5014		00000014	3986	LM R10,R13,OPSWHERE
0000082E	A9AC 0000		00000000	3987	CLCLE R10,R12,0
00000832	4710 262E		0000082E	3988	BC B'0001',*-4
00000836	98AD 5014		00000014	3989	LM R10,R13,OPSWHERE
0000083A	A9AC 0000		00000000	3990	CLCLE R10,R12,0
0000083E	4710 263A		0000083A	3991	BC B'0001',*-4
00000842	98AD 5014		00000014	3992	LM R10,R13,OPSWHERE
00000846	A9AC 0000		00000000	3993	CLCLE R10,R12,0
0000084A	4710 2646		00000846	3994	BC B'0001',*-4
0000084E	98AD 5014		00000014	3995	LM R10,R13,OPSWHERE
00000852	A9AC 0000		00000000	3996	CLCLE R10,R12,0
00000856	4710 2652		00000852	3997	BC B'0001',*-4
0000085A	98AD 5014		00000014	3998	LM R10,R13,OPSWHERE
0000085E	A9AC 0000		00000000	3999	CLCLE R10,R12,0
00000862	4710 265E		0000085E	4000	BC B'0001',*-4
00000866	98AD 5014		00000014	4001	LM R10,R13,OPSWHERE
0000086A	A9AC 0000		00000000	4002	CLCLE R10,R12,0
0000086E	4710 266A		0000086A	4003	BC B'0001',*-4
00000872	98AD 5014		00000014	4004	LM R10,R13,OPSWHERE
00000876	A9AC 0000		00000000	4005	CLCLE R10,R12,0
0000087A	4710 2676		00000876	4006	BC B'0001',*-4
0000087E	98AD 5014		00000014	4007	LM R10,R13,OPSWHERE
00000882	A9AC 0000		00000000	4008	CLCLE R10,R12,0
00000886	4710 2682		00000882	4009	BC B'0001',*-4
0000088A	98AD 5014		00000014	4010	LM R10,R13,OPSWHERE
0000088E	A9AC 0000		00000000	4011	CLCLE R10,R12,0
00000892	4710 268E		0000088E	4012	BC B'0001',*-4
00000896	98AD 5014		00000014	4013	LM R10,R13,OPSWHERE
0000089A	A9AC 0000		00000000	4014	CLCLE R10,R12,0
0000089E	4710 269A		0000089A	4015	BC B'0001',*-4
000008A2	98AD 5014		00000014	4016	LM R10,R13,OPSWHERE
000008A6	A9AC 0000		00000000	4017	CLCLE R10,R12,0
000008AA	4710 26A6		000008A6	4018	BC B'0001',*-4
000008AE	98AD 5014		00000014	4019	LM R10,R13,OPSWHERE
000008B2	A9AC 0000		00000000	4020	CLCLE R10,R12,0
000008B6	4710 26B2		000008B2	4021	BC B'0001',*-4
000008BA	98AD 5014		00000014	4022	LM R10,R13,OPSWHERE
000008BE	A9AC 0000		00000000	4023	CLCLE R10,R12,0
000008C2	4710 26BE		000008BE	4024	BC B'0001',*-4
000008C6	98AD 5014		00000014	4025	LM R10,R13,OPSWHERE
000008CA	A9AC 0000		00000000	4026	CLCLE R10,R12,0
000008CE	4710 26CA		000008CA	4027	BC B'0001',*-4
000008D2	98AD 5014		00000014	4028	LM R10,R13,OPSWHERE

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
000008D6	A9AC 0000		00000000	4029 CLCLE R10,R12,0
000008DA	4710 26D6		000008D6	4030 BC B'0001',*-4
000008DE	98AD 5014		00000014	4031 LM R10,R13,OPSWHERE
000008E2	A9AC 0000		00000000	4032 CLCLE R10,R12,0
000008E6	4710 26E2		000008E2	4033 BC B'0001',*-4
000008EA	98AD 5014		00000014	4034 LM R10,R13,OPSWHERE
000008EE	A9AC 0000		00000000	4035 CLCLE R10,R12,0
000008F2	4710 26EE		000008EE	4036 BC B'0001',*-4
000008F6	98AD 5014		00000014	4037 LM R10,R13,OPSWHERE
000008FA	A9AC 0000		00000000	4038 CLCLE R10,R12,0
000008FE	4710 26FA		000008FA	4039 BC B'0001',*-4
00000902	98AD 5014		00000014	4040 LM R10,R13,OPSWHERE
00000906	A9AC 0000		00000000	4041 CLCLE R10,R12,0
0000090A	4710 2706		00000906	4042 BC B'0001',*-4
0000090E	98AD 5014		00000014	4043 LM R10,R13,OPSWHERE
00000912	A9AC 0000		00000000	4044 CLCLE R10,R12,0
00000916	4710 2712		00000912	4045 BC B'0001',*-4
0000091A	98AD 5014		00000014	4046 LM R10,R13,OPSWHERE
0000091E	A9AC 0000		00000000	4047 CLCLE R10,R12,0
00000922	4710 271E		0000091E	4048 BC B'0001',*-4
00000926	98AD 5014		00000014	4049 LM R10,R13,OPSWHERE
0000092A	A9AC 0000		00000000	4050 CLCLE R10,R12,0
0000092E	4710 272A		0000092A	4051 BC B'0001',*-4
00000932	98AD 5014		00000014	4052 LM R10,R13,OPSWHERE
00000936	A9AC 0000		00000000	4053 CLCLE R10,R12,0
0000093A	4710 2736		00000936	4054 BC B'0001',*-4
0000093E	98AD 5014		00000014	4055 LM R10,R13,OPSWHERE
00000942	A9AC 0000		00000000	4056 CLCLE R10,R12,0
00000946	4710 2742		00000942	4057 BC B'0001',*-4
0000094A	98AD 5014		00000014	4058 LM R10,R13,OPSWHERE
0000094E	A9AC 0000		00000000	4059 CLCLE R10,R12,0
00000952	4710 274E		0000094E	4060 BC B'0001',*-4
00000956	98AD 5014		00000014	4061 LM R10,R13,OPSWHERE
0000095A	A9AC 0000		00000000	4062 CLCLE R10,R12,0
0000095E	4710 275A		0000095A	4063 BC B'0001',*-4
00000962	98AD 5014		00000014	4064 LM R10,R13,OPSWHERE
00000966	A9AC 0000		00000000	4065 CLCLE R10,R12,0
0000096A	4710 2766		00000966	4066 BC B'0001',*-4
0000096E	98AD 5014		00000014	4067 LM R10,R13,OPSWHERE
00000972	A9AC 0000		00000000	4068 CLCLE R10,R12,0
00000976	4710 2772		00000972	4069 BC B'0001',*-4
0000097A	98AD 5014		00000014	4070 LM R10,R13,OPSWHERE
0000097E	A9AC 0000		00000000	4071 CLCLE R10,R12,0
00000982	4710 277E		0000097E	4072 BC B'0001',*-4
00000986	98AD 5014		00000014	4073 LM R10,R13,OPSWHERE
0000098A	A9AC 0000		00000000	4074 CLCLE R10,R12,0
0000098E	4710 278A		0000098A	4075 BC B'0001',*-4
00000992	98AD 5014		00000014	4076 LM R10,R13,OPSWHERE
00000996	A9AC 0000		00000000	4077 CLCLE R10,R12,0
0000099A	4710 2796		00000996	4078 BC B'0001',*-4
0000099E	98AD 5014		00000014	4079 LM R10,R13,OPSWHERE
000009A2	A9AC 0000		00000000	4080 CLCLE R10,R12,0

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
000009A6	4710	27A2		000009A2	4081 BC B'0001',*-4
000009AA	98AD	5014		00000014	4082 LM R10,R13,OPSWHERE
000009AE	A9AC	0000		00000000	4083 CLCLE R10,R12,0
000009B2	4710	27AE		000009AE	4084 BC B'0001',*-4
000009B6	98AD	5014		00000014	4085 LM R10,R13,OPSWHERE
000009BA	A9AC	0000		00000000	4086 CLCLE R10,R12,0
000009BE	4710	27BA		000009BA	4087 BC B'0001',*-4
000009C2	98AD	5014		00000014	4088 LM R10,R13,OPSWHERE
000009C6	A9AC	0000		00000000	4089 CLCLE R10,R12,0
000009CA	4710	27C6		000009C6	4090 BC B'0001',*-4
000009CE	98AD	5014		00000014	4091 LM R10,R13,OPSWHERE
000009D2	A9AC	0000		00000000	4092 CLCLE R10,R12,0
000009D6	4710	27D2		000009D2	4093 BC B'0001',*-4
000009DA	98AD	5014		00000014	4094 LM R10,R13,OPSWHERE
000009DE	A9AC	0000		00000000	4095 CLCLE R10,R12,0
000009E2	4710	27DE		000009DE	4096 BC B'0001',*-4
000009E6	98AD	5014		00000014	4097 LM R10,R13,OPSWHERE
000009EA	A9AC	0000		00000000	4098 CLCLE R10,R12,0
000009EE	4710	27EA		000009EA	4099 BC B'0001',*-4
000009F2	98AD	5014		00000014	4100 LM R10,R13,OPSWHERE
000009F6	A9AC	0000		00000000	4101 CLCLE R10,R12,0
000009FA	4710	27F6		000009F6	4102 BC B'0001',*-4
000009FE	98AD	5014		00000014	4103 LM R10,R13,OPSWHERE
00000A02	A9AC	0000		00000000	4104 CLCLE R10,R12,0
00000A06	4710	2802		00000A02	4105 BC B'0001',*-4
00000A0A	98AD	5014		00000014	4106 LM R10,R13,OPSWHERE
00000A0E	A9AC	0000		00000000	4107 CLCLE R10,R12,0
00000A12	4710	280E		00000A0E	4108 BC B'0001',*-4
00000A16	98AD	5014		00000014	4109 LM R10,R13,OPSWHERE
00000A1A	A9AC	0000		00000000	4110 CLCLE R10,R12,0
00000A1E	4710	281A		00000A1A	4111 BC B'0001',*-4
00000A22	98AD	5014		00000014	4112 LM R10,R13,OPSWHERE
00000A26	A9AC	0000		00000000	4113 CLCLE R10,R12,0
00000A2A	4710	2826		00000A26	4114 BC B'0001',*-4
00000A2E	98AD	5014		00000014	4115 LM R10,R13,OPSWHERE
00000A32	A9AC	0000		00000000	4116 CLCLE R10,R12,0
00000A36	4710	2832		00000A32	4117 BC B'0001',*-4
00000A3A	98AD	5014		00000014	4118 LM R10,R13,OPSWHERE
00000A3E	A9AC	0000		00000000	4119 CLCLE R10,R12,0
00000A42	4710	283E		00000A3E	4120 BC B'0001',*-4
00000A46	98AD	5014		00000014	4121 LM R10,R13,OPSWHERE
00000A4A	A9AC	0000		00000000	4122 CLCLE R10,R12,0
00000A4E	4710	284A		00000A4A	4123 BC B'0001',*-4
00000A52	98AD	5014		00000014	4124 LM R10,R13,OPSWHERE
00000A56	A9AC	0000		00000000	4125 CLCLE R10,R12,0
00000A5A	4710	2856		00000A56	4126 BC B'0001',*-4
00000A5E	98AD	5014		00000014	4127 LM R10,R13,OPSWHERE
00000A62	A9AC	0000		00000000	4128 CLCLE R10,R12,0
00000A66	4710	2862		00000A62	4129 BC B'0001',*-4
00000A6A	98AD	5014		00000014	4130 LM R10,R13,OPSWHERE
00000A6E	A9AC	0000		00000000	4131 CLCLE R10,R12,0
00000A72	4710	286E		00000A6E	4132 BC B'0001',*-4





LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					4165 *****	
					4166 * RPTSPEED	Report instruction speed
					4167 *****	
00000ABA	50F0	2990		00000B90	4169 RPTSPEED ST	Save return address
00000ABE	45F0	2994		00000B94	4170 BAL	Calculate duration
					4171 *	
00000AC2	4150	2B88		00000D88	4172 LA	Subtract overhead
00000AC6	4160	2B80		00000D80	4173 LA	From raw timing
00000ACA	4170	2B80		00000D80	4174 LA	Yielding true instruction timing
00000ACE	45F0	29E8		00000BE8	4175 BAL	Do it
					4176 *	
00000AD2	98CD	2B80		00000D80	4177 LM	Convert to...
00000AD6	8CC0	000C		0000000C	4178 SRDL	... microseconds
					4179 *	
00000ADA	4EC0	2B90		00000D90	4180 CVD	convert HIGH part to decimal
00000ADE	4ED0	2B98		00000D98	4181 CVD	convert LOW part to decimal
					4182 *	
00000AE2	F877	2BA0 2B90	00000DA0	00000D90	4183 ZAP	Calculate...
00000AE8	FC75	2BA0 2B5A	00000DA0	00000D5A	4184 MP	...decimal...
00000AEE	FA77	2BA0 2B98	00000DA0	00000D98	4185 AP	...microseconds
					4186 *	
00000AF4	D20B	2BDB 2BF4	00000DDB	00000DF4	4187 MVC	(edit into...
00000AFA	DE0B	2BDB 2BA3	00000DDB	00000DA3	4188 ED	...print line)
					4190 RAWIO 4,FAIL=FAILIO	Print elapsed time on console
00000B00	9200	300E		0000000E	4191+ MVI	Clear SC information
00000B04	D201	300A 3006	0000000A	00000006	4192+ MVC	Clear accumulated status
00000B0A	5810	3000		00000000	4193+ L	Remember the device ID with which I am working
					4194+*	Initiate Subchannel-based input/output operation
00000B0E	5840	3018		00000018	4195+ \$L	Locate the ORB for the channel subsystem
00000B12	B233	4000		00000000	4196+ SSCH	Initiate the I/O operation
00000B16	A774	009D		00000C50	4197+ \$BC	..Start function failed, report/handle the error
00000B1A	5840	3020		00000020	4198+ \$L	Locate the IRB storage area
00000B1E			00000000		4199+ USING	Make it addressable
					4201+*	Wait for I/O operation to present status via an interruption
00000B1E					4202+IOWT0007 DS	Wait for I/O to complete
00000B1E	D207	2940 0078	00000B40	00000078	4204+ MVC	Save Input/Output new PSW
00000B24	D207	0078 2938	00000078	00000B38	4205+ MVC	Establish Input/Output new PSW
00000B2A	8200	2930		00000B30	4206+ \$LPSW	Wait for event
00000B30	020A0000	00000000			4207+WPSW0008 PSW	Wait for event
00000B38	00082000	00000B48			4208+ION0008 PSW	I/O New PSW: cc==2
00000B40	00000000	00000000			4209+IOS0008 DC	
					4210+*	Handle input/output interruption
00000B48					4211+IRST0008 DS	
00000B48	D207	0078 2940	00000078	00000B40	4212+ MVC	Restore input/output new PSW

LOC	OBJECT	CODE	ADDR1	ADDR2	STMT	
					4213+* Process the interruption...	
					4214+* Validate interruption is for the expected subchannel	
00000B4E	5510	00B8		000000B8	4215+ CL 1,IOSSID Is this the device for which I am waiting?	
00000B52	A774	FFE6		00000B1E	4216+ \$BNE IOWT0007 ..No, continue waiting for it	
					4217+* Accumulate interruption information from IRB	
00000B56	B235	4000		00000000	4218+ TSCH 0(4) Retrive interrupt information	
00000B5A	A744	FFE2		00000B1E	4219+ \$BC B'0100',IOWT0007 CC1 (not status pending), wait for it to arriv	
00000B5E	A714	0079		00000C50	4220+ \$BC B'0001',FAILIO CC3 (not operational), an error then	
					4221+* CC0 (status was pending), accumulate the status	
00000B62	D600	300E	4003	0000000E	00000003	4222+ OC IOCBSC,IRBSCSW+SCSW2 Accumulate status control
00000B68	D601	300A	4008	0000000A	00000008	4223+ OC IOCBST,IRBSCSW+SCSWUS Accumulate device and channel status
00000B6E	9104	300E		0000000E	0000000E	4224+ TM IOCBSC,SCSWSPRI Primary subchannel status?
00000B72	A7E4	FFD6		00000B1E	00000B1E	4225+ \$BNO IOWT0007 ..No, wait for primary status
00000B76	D203	3010	4004	00000010	00000004	4226+ MVC IOCBSCCW,IRBSCSW+SCSWCCW CCW address
00000B7C	D201	3016	400A	00000016	0000000A	4227+ MVC IOCBRCNT,IRBSCSW+SCSWCNT Residual count
					4228+* Test for errors as specified in the IOCB	
00000B82	910C	300A		0000000A	0000000A	4229+ TM IOCBUS,CSWCE+CSWDE Channel end and device end both accumulated?
00000B86	A7E4	0065		00000C50	00000C50	4230+ \$BNO FAILIO Hunh? No CE and DE but do have primary status!
					4231+* Input/Output operation successful	
00000B8A	58F0	2990		00000B90	00000B90	4233 L R15,RPTSAVE Restore return address
00000B8E	07FF					4234 BR R15 Return to caller
00000B90	00000000					4236 RPTSAVE DC F'0' R15 save area



LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				4238	*****
				4239	*           CALCDUR           Calculate DURATION
				4240	*****
00000B94	50F0 29D8		00000BD8	4242	CALCDUR ST   R15,CALCRET   Save return address
00000B98	9057 29DC		00000BDC	4243	STM   R5,R7,CALCWORK   Save work registers
				4244	*
00000B9C	9867 2B70		00000D70	4245	LM   R6,R7,BEGCLOCK   Remove CPU number from clock value
00000BA0	8C60 0006		00000006	4246	SRDL R6,6   "
00000BA4	8D60 0006		00000006	4247	SLDL R6,6   "
00000BA8	9067 2B70		00000D70	4248	STM   R6,R7,BEGCLOCK   "
				4249	*
00000BAC	9867 2B78		00000D78	4250	LM   R6,R7,ENDCLOCK   Remove CPU number from clock value
00000BB0	8C60 0006		00000006	4251	SRDL R6,6   "
00000BB4	8D60 0006		00000006	4252	SLDL R6,6   "
00000BB8	9067 2B78		00000D78	4253	STM   R6,R7,ENDCLOCK   "
				4254	*
00000BBC	4150 2B70		00000D70	4255	LA   R5,BEGCLOCK   Starting time
00000BC0	4160 2B78		00000D78	4256	LA   R6,ENDCLOCK   Ending time
00000BC4	4170 2B80		00000D80	4257	LA   R7,DURATION   Difference
00000BC8	45F0 29E8		00000BE8	4258	BAL R15,SUBDWORD   Calculate duration
				4259	*
00000BCC	9857 29DC		00000BDC	4260	LM   R5,R7,CALCWORK   Restore work registers
00000BD0	58F0 29D8		00000BD8	4261	L   R15,CALCRET   Restore return address
00000BD4	07FF			4262	BR   R15   Return to caller
00000BD8	00000000			4264	CALCRET DC   F'0'   R15 save area
00000BDC	00000000 00000000			4265	CALCWORK DC   3F'0'   R5-R7 save area
				4267	*****
				4268	*           SUBDWORD           Subtract two doublewords
				4269	*           R5 --> subtrahend, R6 --> minuend, R7 --> result
				4270	*****
00000BE8	90AD 2A10		00000C10	4272	SUBDWORD STM   R10,R13,SUBDWSAV   Save registers
				4273	*
00000BEC	98AB 5000		00000000	4274	LM   R10,R11,0(R5)   Subtrahend (value to subtract)
00000BF0	98CD 6000		00000000	4275	LM   R12,R13,0(R6)   Minuend (what to subtract FROM)
00000BF4	1FDB			4276	SLR   R13,R11   Subtract LOW part
00000BF6	47B0 29FE		00000BFE	4277	BNM   *+4+4   (branch if no borrow)
00000BFA	5FC0 2B50		00000D50	4278	SL   R12,=F'1'   (otherwise do borrow)
00000BFE	1FCA			4279	SLR   R12,R10   Subtract HIGH part
00000C00	90CD 7000		00000000	4280	STM   R12,R13,0(R7)   Store results
				4281	*
00000C04	98AD 2A10		00000C10	4282	LM   R10,R13,SUBDWSAV   Restore registers
00000C08	07FF			4283	BR   R15   Return to caller
00000C10	00000000 00000000			4285	SUBDWSAV DC   2D'0'   R10-R13 save area



[illegible]

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				4326 *****	
				4327 * Initialize the CPU for I/O operations	
				4328 *****	
00000C70	B766 2A78		00000C78	4330 IOINIT IOINIT ,	
00000C74	47F0 2A7C		00000C7C	4331+IOINIT LCTL 6,6,IOMK0014	Enable subchannel subclasses for interruptions
00000C78				4332+ B IOMK0014+4	
00000C78	FF000000			4333+IOMK0014 DS 0F	
				4334+ DC XL4'FF000000'	All subchannel subclasses enabled
00000C7C	07FF			4336 BR R15	Return to caller
				4338 *****	
				4339 * Enable the device, making it ready for use	
				4340 *****	
00000C7E	5810 2AC4		00000CC4	4342 ENADEV ENADEV ENAOKAY,FAILDEV,REG=4	
00000C82	5840 3028		00000028	4343+ENADEV L 1,FIND0015	
00000C86		00000000		4344+ \$L 4,IOCBSIB	Locate where the SCHIB is to be stored
00000C86				4345+ USING SCHIB,4	
00000C86	B234 4000		00000000	4346+FINL0015 DS 0H	Retrieve Subchannel Information Block for desired device number
00000C8A	A774 FFDB		00000C40	4347+ STSCH 0(4)	Store the SCHIB for first subchannel
00000C8E	9101 4005		00000005	4348+ \$BC B'0111',FAILDEV	Subchannel does not exist and device number not found
00000C92	A784 0011		00000CB4	4349+ TM PMCW1_8,PMCWV	Is the subchannel device number valid?
00000C96	D501 4006 3004	00000006	00000004	4350+ \$BZ FINN0015	..No, check the next subchannel
00000C9C	A774 000C		00000CB4	4351+ CLC PMCWDNUM,IOCBDEV	Is this the device number being sought?
				4352+ \$BNE FINN0015	..No, check the next subchannel
				4353+* Subchannel found!	
00000CA0	5010 3000		00000000	4354+ ST 1,IOCBDID	Remember the subchannel so I/O can be done to it.
00000CA4	9680 4005		00000005	4355+ OI PMCW1_8,PMCWE	Make sure it is enabled so I/O requests accepted
00000CA8	B232 4000		00000000	4356+ MSCH 0(4)	Enable the subchannel to the channel sub-system
00000CAC	A784 0010		00000CCC	4357+ \$BC B'1000',ENAOKAY	CC0 (SCHIB updated), device is ready.
00000CB0	A7F4 FFC8		00000C40	4358+ \$B FAILDEV	CC1,CC2,CC3 (SCHIB update failed), quit
00000CB4				4359+FINN0015 DS 0H	Advance to next subchannel
00000CB4	4110 1001		00000001	4360+ LA 1,1(0,1)	Advance to next subchannel
00000CB8	5510 2AC8		00000CC8	4361+ CL 1,FINM0015	Beyond maximum subchannel
00000CBC	A7D4 FFE5		00000C86	4362+ \$BNH FINL0015	..No, examine the next subchannel
00000CC0	A724 FFC0		00000C40	4363+ \$BH FAILDEV	..Yes, failed to enable the device
00000CC4				4364+ DROP 4	Forget SCHIB addressing
00000CC4	00010000			4365+FIND0015 DC A(X'00010000')	First subchannel subsystem ID
00000CC8	0001FFFF			4366+FINM0015 DC A(X'0001FFFF')	Last subchannel subsystem ID
00000CCC	07FF			4368 ENAOKAY BR R15	Return to caller

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				4370 *****
				4371 *           Structure used by RAWIO identifying
				4372 *           the device and operation being performed
				4373 *****
				4375 IOCB_009 IOCB X'009',CCW=CONPGM
00000CD0	00000000			4376+IOCB_009 DC A(0) +0 Device Identifier (supplied by ENADEV macro)
00000CD4	0009			4377+ DC AL2(X'009') +4 Device address or device number
00000CD6	0000			4378+ DC H'0' +6 Must be zeros
00000CD8	D3			4379+ DC AL1(X'D3') +8 Default detected unit errors
00000CD9	3F			4380+ DC AL1(X'3F') +9 Default detected channel errors
00000CDA	0000			4381+ DC HL2'0' +10 Accumulated unit and channel errors
00000CDC	0000			4382+ DC HL2'0' +12 Tested unit and channel status
00000CDE	00			4383+ DC XL1'00' +14 Accumulated subchannel status control from SCSW
00000CDF	80			4384+ DC XL1'80' +15 Default unsolicited wait condition
00000CE0	00000000			4385+ DC F'0' +16 I/O status CCW address
00000CE4	00000000			4386+ DC F'0' +20 residual count
00000CE8	00000D40			4387+ DC A(IORB0016) +24 Address where ORB is located
00000CEC	00000000			4388+ DC A(0) +28 reserved
00000CF0	00000D00			4389+ DC A(IIRB0016) +32 Address where IRB stored
00000CF4	00000000			4390+ DC A(0) +36 reserved
00000CF8	00000D00			4391+ DC A(IIRB0016) +40 Address where SCHIB stored
00000CFC	00000000			4392+ DC A(0) +44 reserved
00000D00	00000000 00000000			4393+IIRB0016 DC 16F'0' Embedded shared IRB and SCHIB area
00000D40				4395+IORB0016 DS 0XL12
00000D40	00000000			4396+ DC A(0) Word 0 - Interruption Parameter
00000D44	00			4397+ DC AL1((0)*16+B'0000') Word 1, bits 0-7
00000D45	80			4398+ DC BL1'10000000' Word 1, bits 8-15
00000D46	FF			4399+ DC AL1(255) Word 1, bits 16-23
00000D47	00			4400+ DC BL1'00000000' Word 1, bits 24-31
00000D48	00000DA8			4401+ DC AL4(CONPGM) Word 2 - CCW address

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				4403 *****
				4404 * Working Storage
				4405 *****
00000D4C				4407 LTORG , Literals pool
00000D4C	00000000			4408 =F'0'
00000D50	00000001			4409 =F'1'
00000D54	C3D3C3D3 C540			4410 =CL6'CLCLE'
00000D5A	04294967 296C			4411 =P'4294967296'
		00000400	00000001	4413 K EQU 1024 One KB
		00001000	00000001	4414 PAGE EQU (4*K) Size of one page
		00010000	00000001	4415 K64 EQU (64*K) 64 KB
		00100000	00000001	4416 MB EQU (K*K) 1 MB
		000021FE	00000001	4418 TESTADDR EQU (2*PAGE+X'200'-2) Where test/subtest numbers will go
		000021FD	00000001	4419 TIMEADDR EQU (TESTADDR-1) Address of timing tests option flag
		00200000	00000001	4421 MAINSIZE EQU (2*MB) Minimum required storage size
		00000020	00000001	4422 NUMPGTBS EQU ((MAINSIZE+K64-1)/K64) Number of Page Tables needed
		00000002	00000001	4423 NUMSEGTB EQU ((NUMPGTBS*4)/(16*4)) Number of Segment Tables
		00003000	00000001	4424 SEGTABLES EQU (3*PAGE) Segment Tables Origin
		00003080	00000001	4425 PAGETABS EQU (SEGTABLES+(NUMPGTBS*4)) Page Tables Origin
00000D60	00B00060			4426 CRLREG0 DC 0A(0),XL4'00B00060' Control Register 0
00000D64	00003002			4427 CTLREG1 DC A(SEGTABLES+NUMSEGTB) Control Register 1
00000D68	00002710			4429 NUMLOOPS DC F'10000' 10,000 * 100 = 1,000,000
00000D70	BBBBBBBBB BBBBBBBB			4431 BEGCLOCK DC 0D'0',8X'BB' Begin
00000D78	EEEEEEEE EEEEEEE			4432 ENDCLOCK DC 0D'0',8X'EE' End
00000D80	DDDDDDDD DDDDDDD			4433 DURATION DC 0D'0',8X'DD' Diff
00000D88	FFFFFFFF FFFFFFFF			4434 OVERHEAD DC 0D'0',8X'FF' Overhead
00000D90	00000000 0000000C			4436 TICKSAAA DC PL8'0' Clock ticks high part
00000D98	00000000 0000000C			4437 TICKSBBB DC PL8'0' Clock ticks low part
00000DA0	00000000 0000000C			4438 TICKSTOT DC PL8'0' Total clock ticks
00000DA8	09000044 00000DB0			4440 CONPGM CCW1 X'09',PRTLINE,0,PRTLNG
00000DB0	40404040 40404040			4441 PRTLINE DC C' 1,000,000 iterations of XXXXX'
00000DD6	40A39696 9240F9F9			4442 DC C' took 999,999,999 microseconds'
		00000044	00000001	4443 PRTLNG EQU *-PRTLINE
00000DF4	40202020 6B202020			4444 EDIT DC X'402020206B2020206B202120'

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				4447 *****	
				4448 * CLCTEST DSECT	
				4449 *****	
				4451 CLCTEST DSECT ,	
00000000	00			4453 TNUM DC X'00'	CLCLE table Number
00000001	00			4454 TSUBNUM DC X'00'	sub table number
00000002	00			4455 DC X'00'	
00000003	00			4456 DC X'00'	
00000004	00000000			4458 OP1DATA DC A(0)	Pointer to Operand-1 data
00000008	00000000			4459 OP1LEN DC A(0)	Operand-1 data length
0000000C	00000000			4460 OP2DATA DC A(0)	Pointer to Operand-2 data
00000010	00000000			4461 OP2LEN DC A(0)	Operand-2 data length
				4462	
		00000014	00000001	4463 OPSWHERE EQU *	Where CLCLE Operands are located
00000014	00000000			4464 OP1WHERE DC A(0)	Where Operand-1 data should be placed
00000018	00000000			4465 OP1WLEN DC F'0'	How much data is there - 1
0000001C	00000000			4466 OP2WHERE DC A(0)	Where Operand-2 data should be placed
00000020	00000000			4467 OP2WLEN DC F'0'	How much data is there - 2
00000024	00000000			4469 FAILMASK DC A(0)	not used in performance test
00000028	00000000			4471 ENDREG DC A(0)	not used in performance test
0000002C	00000000			4472 ENDSTOR DC A(0)	not used in performance test
		00000030	00000001	4474 CLENEXT EQU *	Start of next table entry...
		00000000	00003000	4476 CLCLE04 CSECT ,	
				4478 *****	
				4479 * CLCLE Performace Test data...	
				4480 *	
				4481 * Note: The test CLCLE pad byte is always X'00'.	
				4482 *	

LOC	OBJECT CODE	ADDR1	ADDR2	STMT	
				4483 *	Note: These timing test do not generate a CC=3 as the operands are less than 3,840 bytes in length. The test loop does test for CC=3 for any future tests introduced to this table.
				4484 *	
				4485 *	
				4486 *	
				4487 *****	
00000E00				4488 CLEPERF DC 0A(0)	start of table
00000E00	91000000			4490 CLEPOP1 DC	X'91',X'00',X'00',X'00'
00000E04	00000EF8	00000200		4491 DC	A(CLEOP10),A(512)
00000E0C	00000EF8	00000200		4492 DC	A(CLEOP10),A(512)
00000E14	00010000	00000200		4493 DC	A(00+(01*K64)),A(512)
00000E1C	00110000	00000200		4494 DC	A(MB+(01*K64)),A(512) no crosses
00000E24	00000007			4495 DC	A(7) CC0
00000E28	00010200	AABBCCDD		4496 DC	A(00+(01*K64)+512),A(REG2PATT)
00000E30	92000000			4498 CLEPOP2 DC	X'92',X'00',X'00',X'00'
00000E34	00000EF8	00000200		4499 DC	A(CLEOP10),A(512)
00000E3C	00000EF8	00000200		4500 DC	A(CLEOP10),A(512)
00000E44	0001FFF4	00000200		4501 DC	A(00+(02*K64)-12),A(512) op1 crosses
00000E4C	00120000	00000200		4502 DC	A(MB+(02*K64)),A(512)
00000E54	00000007			4503 DC	A(7) CC0
00000E58	000201F4	AABBCCDD		4504 DC	A(00+(02*K64)-12+512),A(REG2PATT)
00000E60	93000000			4506 CLEPOP3 DC	X'93',X'00',X'00',X'00'
00000E64	00000EF8	00000800		4507 DC	A(CLEOP10),A(2048)
00000E6C	00000EF8	00000800		4508 DC	A(CLEOP10),A(2048)
00000E74	00030000	00000800		4509 DC	A(00+(03*K64)),A(2048)
00000E7C	00130000	00000800		4510 DC	A(MB+(03*K64)),A(2048) no crosses
00000E84	00000007			4511 DC	A(7) CC0
00000E88	00030200	AABBCCDD		4512 DC	A(00+(03*K64)+512),A(REG2PATT)
00000E90	94000000			4514 CLEPOP4 DC	X'94',X'00',X'00',X'00'
00000E94	00000EF8	00000800		4515 DC	A(CLEOP10),A(2048)
00000E9C	00000EF8	00000800		4516 DC	A(CLEOP10),A(2048)
00000EA4	00040000	00000800		4517 DC	A(00+(04*K64)),A(2048)
00000EAC	0013FFF4	00000800		4518 DC	A(MB+(04*K64)-12),A(2048) op2 crosses
00000EB4	00000007			4519 DC	A(7) CC0
00000EB8	00040200	AABBCCDD		4520 DC	A(00+(04*K64)+512),A(REG2PATT)





LOC	OBJECT	CODE	ADDR1	ADDR2	STMT
					4542 *****
					4543 * Fixed storage locations
					4544 *****

000016F8	000016F8	000021FD	4546	ORG	CLCLE04+TIMEADDR	(s/b @ X'21FD')
000021FD	00		4548	TIMEOPT	DC	X'00' Set to non-zero to run timing tests
			4549			

000021FE		000021FE	000021FE	4551	ORG	CLCLE04+TESTADDR	(s/b @ X'21FE', X'21FF')	
000021FE	00			4553	TESTNUM	DC	X'00'	Test number of active test
000021FF	00			4554	SUBTEST	DC	X'00'	Active test sub-test number

00002200	00002200	00003000	4556	ORG	CLCLE04+SEGTABLS	(s/b @ X'3000')
00003000	00		4558	DATTABS	DC	X'00' Segment and Page Tables will go here...

LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				4560 *****
				4561 * IOCB DSECT
				4562 *****
				4564 DSECTS NAME=IOCB
				4566+IOCB DSECT
				4567+* Field usage by: CH SC Description (R->program read-only, X->program read/write)
00000000				4568+IOCBID DS 0F +0 R Device Identifier - Subsystem ID for channel subsystem
00000000	0000			4569+ DS H +0 R reserved - must be zeros
00000002	0000			4570+IOCBDEV DS H +2 R Channel Unit Device address of I/O operation
00000004	0000			4571+IOCBDEV DS H +4 X X Device address or device number (R after ENADEV)
00000006	0000			4572+IOCBZERO DS H +6 R R Must be zeros
00000008	00			4573+IOCBUM DS X +8 X X Unit status test mask
00000009	00			4574+IOCBCM DS X +9 X X Channel status test mask
0000000A				4575+IOCBST DS 0H +10 X X Input/Output unit and channel status accumulation
0000000A	00			4576+IOCBUS DS X +10 R R Accumulated unit status
0000000B	00			4577+IOCBCS DS X +11 R R Accumulated channel status
0000000C	00			4578+IOCBUT DS X +14 R R Used to test unit status
0000000D	00			4579+IOCBCT DS X +13 R R Used to test channel status
0000000E	00			4580+IOCBSC DS X +14 R Accumulted subchannel status control
0000000F	00			4581+IOCBWAIT DS X +15 X X Recognized unsolicited interruption unit status events
00000010	00000000			4582+IOCBSCCW DS A +16 R R I/O status CCW address
00000014				4583+IOCBSCNT DS 0F +20 R R I/O status residual count as a positive full word
00000014	0000			4584+ DS H +20 R reserved must be zeros
00000016	0000			4585+IOCBRCNT DS H +22 R I/O status residual count as an unsigned halfword
00000018				4586+IOCBCAW DS 0A +24 X Channel Address word
00000018	00000000 00000000			4587+IOCBORB DS AD +24 X Address of the ORB for channel subsystem I/O
00000020	00000000 00000000			4588+IOCBIRB DS AD +32 X Channel subsystem IRB address
00000028	00000000 00000000			4589+IOCBSIB DS AD +40 X Channel subsystem SCHIB address
		00000030	00000001	4590+IOCBL EQU *-IOCB Length of IOCB control block (48) without embedded structures

LOC	OBJECT CODE	ADDR1	ADDR2	STMT					
				4592	*****				
				4593	*	ORB DSECT			
				4594	*****				
				4596	DSECTS NAME=ORB				
				4598+ORB	DSECT				
00000000	00000000			4599+ORBPARM	DC	F'0'	Word 0, bits 0-31		
00000004	00			4601+ORB1_0	DC	X'00'	Word 1, bits 0-7		
		000000F0	00000001	4602+ORBKEYM	EQU	X'F0'	Word 1, bits 0-3	- Storage Key Mask	
		00000008	00000001	4603+ORBS	EQU	X'08'	Word 1, bit 4	- Suspend Control	
		00000004	00000001	4604+ORBC	EQU	X'04'	Word 1, bit 5	- Streaming Mode Control	
		00000002	00000001	4605+ORBM	EQU	X'02'	Word 1, bit 6	- Modification Control	
		00000001	00000001	4606+ORBY	EQU	X'01'	Word 1, bit 7	- Synchronization Control	
00000005	00			4608+ORB1_8	DC	X'00'	Word 1, bits 8-15		
		00000080	00000001	4609+ORBF	EQU	X'80'	Word 1, bit 8	- CCW Format-Control	
		00000040	00000001	4610+ORBP	EQU	X'40'	Word 1, bit 9	- Pre-fetch control	
		00000020	00000001	4611+ORBI	EQU	X'20'	Word 1, bit 10	- Initial-status Interruption Control	
		00000010	00000001	4612+ORBA	EQU	X'10'	Word 1, bit 11	- Address Limit Checking Control	
		00000008	00000001	4613+ORBU	EQU	X'08'	Word 1, bit 12	- Suppress-suspended-interruption control	
		00000004	00000001	4614+ORBB	EQU	X'04'	Word 1, bit 13	- Channel-Program-Type Control	
		00000002	00000001	4615+ORBH	EQU	X'02'	Word 1, bit 14	- Format 2-IDAW Control	
		00000001	00000001	4616+ORBT	EQU	X'01'	Word 1, bit 15	- 2K-IDAW control	
00000006	00			4617+ORBLPM	DC	X'00'	Word 1, bits 16-23	- Logical Path Mask	
00000007	00			4618+ORRB1_24	DC	X'00'	Word 1, bits 24-31		
		00000080	00000001	4619+ORBL	EQU	X'80'	Word 1, bit 24	- Incorrect Length Suppression Mode	
		0000007F	00000001	4620+ORBRSV3	EQU	X'7F'	Word 1, bits 25-31	- reserved must be zeros	
		00000040	00000001	4621+ORBD	EQU	X'40'	Word 1, bit 25	- MIDAW Addressing Control	
		0000003E	00000001	4622+ORBRSV26	EQU	X'3E'	Word 1, bits 26-30	- reserved must be zeros	
		0000007E	00000001	4623+ORBRSV25	EQU	X'7E'	Word 1, bits 25-30	- reserved must be zeros	
		00000001	00000001	4624+ORBX	EQU	X'01'	Word 1, bit 31	- ORB-extension control	
00000008	00000000			4626+ORBCCW	DC	A(0)	Word 2, bits 1-31	- Channel Program Address	
		00000080	00000001	4627+ORBRSV4	EQU	X'80'	Word 2, bit 0	- reserved must be zero	
		0000000C	00000001	4628+ORBLEN	EQU	*-ORB Length of standard ORB			
				4629+*	Extended ORB fields				
0000000C	00			4630+ORBCSS	DC	X'00'	Word 3, bits 0-7	- Channel Subsystem Priority	
0000000D	00			4631+ORBRSV5	DC	X'00'	Word 3, bits 8-15	- reserved must be zeros	
0000000E				4632+ORBPGM	DC	0X'00'	Word 3, bits 16-23	- Transport mode reserves for program use	
0000000E	00			4633+ORBCU	DC	X'00'	Word 3, bits 16-23	- Control Unit Priority	
0000000F	00			4634+ORBRSV6	DC	X'00'	Word 3, bits 24-31	- reserved must be zeros	
00000010	00000000 00000000			4635+ORBRSV7	DC	XL16'00'	Words 4-7	- reserved must be zeros	
		00000020	00000001	4636+ORBXLEN	EQU	*-ORB Length of extended ORB			



LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				4654 *****
				4655 *           SCSW DSECT
				4656 *****
				4658           DSECTS NAME=SCSW
00000000	00			4660+SCSW   DSECT Subchannel           Status Word
		000000F0	00000001	4661+SCSWFLAG DC   X'00'   Flags
		00000008	00000001	4662+SCSWKEYM EQU   X'F0'   Storage Key Mask of subchannel storage key
		00000004	00000001	4663+SCSWUSC EQU   X'08'   Suspend Control
		00000003	00000001	4664+SCSWESWF EQU   X'04'   Extended Status Word Format
		00000000	00000001	4665+SCSWDCCM EQU   X'03'   Deferred condiont code mask
		00000001	00000001	4666+SCSWDCC0 EQU   X'00'   Normal I/O interruption
		00000003	00000001	4667+SCSWDCC1 EQU   X'01'   Deferred condition code is 1
				4668+SCSWDCC3 EQU   X'03'   Deferred condition code is 3
00000001	00			4670+SCSWCTLS DC   X'00'   General Controls
		00000080	00000001	4671+SCSWCCWF EQU   X'80'   CCW Format control when ...
		00000040	00000001	4672+SCSWCCWP EQU   X'40'   CCW Prefetch Control
		00000020	00000001	4673+SCSWISIC EQU   X'20'   Initial-Status-Interruption Control
		00000010	00000001	4674+SCSWALKC EQU   X'10'   Address-Limit-Checking Control
		00000008	00000001	4675+SCSWSSIC EQU   X'08'   Suppress suspended interruption
		00000004	00000001	4676+SCSW0CC EQU   X'04'   Zero-Condition Code
		00000002	00000001	4677+SCSWECWC EQU   X'02'   Extended Control Word control
		00000001	00000001	4678+SCSWPNOP EQU   X'01'   Path Not Operational
00000002	00			4680+SCSW1   DC   X'00'   Control Byte 1
		00000070	00000001	4681+SCSWFM EQU   X'70'   Functional Control Mask
		00000040	00000001	4682+SCSWFS EQU   X'40'   Function Control - Start Function
		00000020	00000001	4683+SCSWFH EQU   X'20'   Function Control - Halt Function
		00000010	00000001	4684+SCSWFC EQU   X'10'   Function Control - Clear Function
		00000008	00000001	4685+SCSWARP EQU   X'08'   Activity Control - Resume pending
		00000004	00000001	4686+SCSWASP EQU   X'04'   Activity Control - Start pending
		00000002	00000001	4687+SCSWAHP EQU   X'02'   Activity Control - Halt pending
		00000001	00000001	4688+SCSWACP EQU   X'01'   Activity Control - Clear pending
00000003	00			4689+SCSW2   DC   X'00'   Control Byte 2
		00000080	00000001	4690+SCSWASA EQU   X'80'   Activity Control - Subchannel Active
		00000040	00000001	4691+SCSWADA EQU   X'40'   Activity Control - Device Active
		00000020	00000001	4692+SCSWASUS EQU   X'20'   Activity Control - Suspended
		00000010	00000001	4693+SCSWASAS EQU   X'10'   Status Control - Alert Status
		00000008	00000001	4694+SCSWSINT EQU   X'08'   Status Control - Intermediate Status
		00000004	00000001	4695+SCSWSPRI EQU   X'04'   Status Control - Primary Status
		00000002	00000001	4696+SCSWSSEC EQU   X'02'   Status Control - Secondary Status
		00000001	00000001	4697+SCSWSPEN EQU   X'01'   Status Control - Status Pending
00000004	00000000			4699+SCSWCCW DC   A(0)   CCW Address
00000008	00			4701+SCSWUS   DC   X'00'   Unit Status
		00000080	00000001	4702+SCSWATTN EQU   X'80'   Attention
		00000040	00000001	4703+SCSWSM EQU   X'40'   Status modifier
		00000020	00000001	4704+SCSWCUE EQU   X'20'   Control-unit end
		00000010	00000001	4705+SCSWBUSY EQU   X'10'   Busy
		00000008	00000001	4706+SCSWCE EQU   X'08'   Channel end



LOC	OBJECT CODE	ADDR1	ADDR2	STMT
				4725 *****
				4726 * (other DSECTS needed by SATK)
				4727 *****
				4729 DSECTS PRINT=OFF,NAME=(ASA,SCHIB,CCW0,CCW1,CSW)
				5005 PRINT ON
				5007 *****
				5008 * Register equates
				5009 *****
		00000000	00000001	5011 R0 EQU 0
		00000001	00000001	5012 R1 EQU 1
		00000002	00000001	5013 R2 EQU 2
		00000003	00000001	5014 R3 EQU 3
		00000004	00000001	5015 R4 EQU 4
		00000005	00000001	5016 R5 EQU 5
		00000006	00000001	5017 R6 EQU 6
		00000007	00000001	5018 R7 EQU 7
		00000008	00000001	5019 R8 EQU 8
		00000009	00000001	5020 R9 EQU 9
		0000000A	00000001	5021 R10 EQU 10
		0000000B	00000001	5022 R11 EQU 11
		0000000C	00000001	5023 R12 EQU 12
		0000000D	00000001	5024 R13 EQU 13
		0000000E	00000001	5025 R14 EQU 14
		0000000F	00000001	5026 R15 EQU 15
				5028 END





SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
CSW	F	00000040	8	4762	
CSWATTN	U	00000080	1	4932	
CSWBUSY	U	00000010	1	4935	
CSWCCTL	U	00000004	1	4947	
CSWCCW	R	00000001	3	4929	
CSWCDAT	U	00000008	1	4946	
CSWCE	U	00000008	1	4936	4229
CSWCHNG	U	00000001	1	4949	
CSWCNT	H	00000006	2	4951	
CSWCS	X	00000005	1	4941	
CSWCUE	U	00000020	1	4934	
CSWDCC0	U	00000000	1	4925	
CSWDCC1	U	00000001	1	4926	
CSWDCC3	U	00000003	1	4927	
CSWDCCM	U	00000003	1	4924	
CSWDE	U	00000004	1	4937	4229
CSWFLAG	X	00000000	1	4919	
CSWFMT	4	00000000	8	4918	4952
CSWFMTL	U	00000008	1	4952	
CSWICTL	U	00000002	1	4948	
CSWIL	U	00000040	1	4943	
CSWKEYM	U	000000F0	1	4920	
CSWLOG	U	00000004	1	4923	
CSWPCI	U	00000080	1	4942	
CSWPRGM	U	00000020	1	4944	
CSWPROT	U	00000010	1	4945	
CSWSM	U	00000040	1	4933	
CSWSUSP	U	00000008	1	4922	
CSWUC	U	00000002	1	4938	
CSWUS	X	00000004	1	4931	
CSWUX	U	00000001	1	4939	
CTLREG1	A	00000D64	4	4427	
DATTABS	X	00003000	1	4558	
DURATION	D	00000D80	8	4433	3826 4173 4174 4177 4257
DWAT0010	3	00000C38	8	4309	4308
DWAT0011	3	00000C48	8	4314	4313
DWAT0012	3	00000C58	8	4319	4318
DWAT0013	3	00000C68	8	4324	4323
EDIT	X	00000DF4	12	4444	4187 4188
ENADEV	I	00000C7E	4	4343	4297
ENAOKAY	I	00000CCC	2	4368	4357
ENDCLOCK	D	00000D78	8	4432	3824 4143 4250 4253 4256
ENDREG	A	00000028	4	4471	
ENDSTOR	A	0000002C	4	4472	
EOJ	H	00000C32	2	4307	3559 3567
EXTCPUAD	H	00000084	2	4783	
EXTICODE	H	00000086	2	4784	
EXTIPARM	F	00000080	4	4782	
EXTNPSW	F	00000058	8	4772	
EXTOPSW	F	00000018	8	4744	4750
FAILDEV	H	00000C40	2	4312	4348 4358 4363
FAILIO	H	00000C50	2	4317	4197 4220 4230

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES		
FAILMASK	A	00000024	4	4469			
FAILTEST	H	00000C60	2	4322	3562	3565	
FIND0015	A	00000CC4	4	4365	4343		
FINL0015	H	00000C86	2	4346	4362		
FINM0015	A	00000CC8	4	4366	4361		
FINN0015	H	00000CB4	2	4359	4350	4352	
IIRB0016	F	00000D00	4	4393	4389	4391	
IMAGE	1	00000000	12289	0			
INIT	H	00000C20	2	4291	3547		
IOCB	4	00000000	48	4566	4590	3536	
IOCBCAW	A	00000018	4	4586			
IOCBM	X	00000009	1	4574			
IOCBM	X	0000000B	1	4577			
IOCBCT	X	0000000D	1	4579			
IOCBDEV	H	00000004	2	4571	4351		
IOCBDID	F	00000000	4	4568	4193	4354	
IOCBDV	H	00000002	2	4570			
IOCBIRB	A	00000020	8	4588	4198		
IOCBM	U	00000030	1	4590			
IOCBORB	A	00000018	8	4587	4195	4294	
IOCBRCNT	H	00000016	2	4585	4227		
IOCBSC	X	0000000E	1	4580	4191	4222	4224
IOCBSCCW	A	00000010	4	4582	4226		
IOCBSCNT	F	00000014	4	4583			
IOCBSIB	A	00000028	8	4589	4344		
IOCBST	H	0000000A	2	4575	4192	4223	
IOCBUM	X	00000008	1	4573			
IOCBUS	X	0000000A	1	4576	4229		
IOCBUT	X	0000000C	1	4578			
IOCBWAIT	X	0000000F	1	4581			
IOCBZERO	H	00000006	2	4572	4192		
IOCB_009	A	00000CD0	4	4376	4293		
IOELADDR	F	000000AC	4	4819			
IOICODE	H	000000BA	2	4824			
IOIID	F	000000C0	4	4829			
IOINIT	I	00000C70	4	4331	4296		
IOIPARM	F	000000BC	4	4828			
IOMK0014	F	00000C78	4	4333	4331	4332	
ION0008	3	00000B38	8	4208	4205		
IONPSW	F	00000078	8	4776			
IOOPSW	F	00000038	8	4748	4758		
IORB0016	X	00000D40	12	4395	4387		
IOS0008	X	00000B40	8	4209	4204	4212	
IOSSID	F	000000B8	4	4827	4215		
IOWT0007	H	00000B1E	2	4202	4216	4219	4225
IPLCCW1	F	00000008	8	4736			
IPLCCW2	F	00000010	8	4737			
IPLPSW	F	00000000	8	4735			
IRB	4	00000000	96	4645	4649	4651	4199
IRBECW	X	00000020	32	4648			
IRBEMW	X	00000040	32	4650			
IRBESW	X	0000000C	20	4647			

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES													
IRBL	U	00000040	1	4649														
IRBSCSW	X	00000000	12	4646	4222	4223	4226	4227										
IRBXL	U	00000060	1	4651														
IRST0008	H	00000B48	2	4211	4208													
K	U	00000400	1	4413	4414	4415	4416											
K64	U	00010000	1	4415	4422	4493	4494	4496	4501	4502	4504	4509	4510	4512	4517	4518	4520	
					4525	4526	4528											
LCHANLOG	F	000000B0	4	4820														
MAINSIZE	U	00200000	1	4421	4422													
MB	U	00100000	1	4416	4421	4494	4502	4510	4518	4526								
MCKLOG	F	00000100	4	4852														
MCKNPSW	F	00000070	8	4775														
MCKOPSW	F	00000030	8	4747	4756													
MEASUREB	X	000000B9	1	4823														
MKARCHMD	X	000000A3	1	4811														
MKARS	F	00000120	4	4850														
MKCLKCMP	F	000000E0	8	4836														
MKCPUTIM	F	000000D8	8	4835														
MKCRS	F	000001C0	4	4855														
MKDMGCOD	F	000000F4	4	4839														
MKFAILA	F	000000F8	4	4841														
MKFPRS	D	00000160	8	4853														
MKICODE	F	000000E8	4	4837														
MKLOGOUT	F	00000100	4	4843														
MKMODEL	F	000000FC	4	4842														
MKXSAA	F	000000D4	4	4834														
MONCLS	H	00000094	2	4799														
MONCODE	F	0000009C	4	4806														
MONNUMBR	X	00000095	1	4801														
MPGACCID	X	000000A2	1	4809														
NKGRS	F	00000180	4	4854														
NUMLOOPS	F	00000D68	4	4429	3610	3830												
NUMPGTBS	U	00000020	1	4422	4423	4425												
NUMSEGTB	U	00000002	1	4423	4427													
OP1DATA	A	00000004	4	4458	3597													
OP1LEN	A	00000008	4	4459	3596	3598												
OP1WHERE	A	00000014	4	4464	3595													
OP1WLEN	F	00000018	4	4465														
OP2DATA	A	0000000C	4	4460	3603													
OP2LEN	A	00000010	4	4461	3602	3604												
OP2WHERE	A	0000001C	4	4466	3601													
OP2WLEN	F	00000020	4	4467														
OPSWHERE	U	00000014	1	4463	3614	3616	3621	3623	3625	3627	3629	3631	3633	3635	3637	3639	3641	
					3643	3645	3647	3649	3651	3653	3655	3657	3659	3661	3663	3665	3667	
					3669	3671	3673	3675	3677	3679	3681	3683	3685	3687	3689	3691	3693	
					3695	3697	3699	3701	3703	3705	3707	3709	3711	3713	3715	3717	3719	
					3721	3723	3725	3727	3729	3731	3733	3735	3737	3739	3741	3743	3745	
					3747	3749	3751	3753	3755	3757	3759	3761	3763	3765	3767	3769	3771	
					3773	3775	3777	3779	3781	3783	3785	3787	3789	3791	3793	3795	3797	
					3799	3801	3803	3805	3807	3809	3811	3813	3818	3820	3833	3836	3842	
					3845	3848	3851	3854	3857	3860	3863	3866	3869	3872	3875	3878	3881	
					3884	3887	3890	3893	3896	3899	3902	3905	3908	3911	3914	3917	3920	



SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES														
PGMIID	F	0000008C	4	4792															
PGMIILC	X	0000008D	1	4794															
PGMIILCM	U	0000000C	1	4795															
PGMNPSW	F	00000068	8	4774															
PGMOPSW	F	00000028	8	4746	4754														
PGMTRX	F	00000090	4	4798															
PMCW1_0	X	00000004	1	4959															
PMCW1_8	X	00000005	1	4962	4349	4355													
PMCWB	U	00000004	1	4994															
PMCWCHP0	X	00000010	1	4983															
PMCWCHP1	X	00000011	1	4984															
PMCWCHP2	X	00000012	1	4985															
PMCWCHP3	X	00000013	1	4986															
PMCWCHP4	X	00000014	1	4987															
PMCWCHP5	X	00000015	1	4988															
PMCWCHP6	X	00000016	1	4989															
PMCWCHP7	X	00000017	1	4990															
PMCWDNUM	H	00000006	2	4974	4351														
PMCWE	U	00000080	1	4963	4355														
PMCWEXC	X	0000001B	1	4993															
PMCWIP	F	00000000	4	4958															
PMCWISCM	U	00000038	1	4960															
PMCWLM	U	00000060	1	4964															
PMCWLMG	U	00000020	1	4965															
PMCWLML	U	00000040	1	4966															
PMCWLPM	X	00000008	1	4976															
PMCWLPUM	X	0000000A	1	4978															
PMCWM	U	00000004	1	4970															
PMCWMBI	H	0000000C	2	4980															
PMCWMM	U	00000018	1	4967															
PMCWMMC	U	00000008	1	4969															
PMCWME	U	00000010	1	4968															
PMCWPA	X	0000000F	1	4982															
PMCWPI	X	0000000B	1	4979															
PMCWPN	X	00000009	1	4977															
PMCWPO	X	0000000E	1	4981															
PMCWRES1	X	00000018	4	4991															
PMCWRES2	X	00000018	3	4992															
PMCWS	U	00000001	1	4996															
PMCWT	U	00000002	1	4971															
PMCWV	U	00000001	1	4972	4349														
PMCWX	U	00000002	1	4995															
PRTLNE	C	00000DB0	38	4441	4443	4147	4187	4188	4440										
PRTLNG	U	00000044	1	4443	4440														
R0	U	00000000	1	5011	3533														
R1	U	00000001	1	5012	4159														
R10	U	0000000A	1	5021	3595	3599	3614	3616	3621	3623	3625	3627	3629	3631	3633	3635	3637		
					3639	3641	3643	3645	3647	3649	3651	3653	3655	3657	3659	3661	3663		
					3665	3667	3669	3671	3673	3675	3677	3679	3681	3683	3685	3687	3689		
					3691	3693	3695	3697	3699	3701	3703	3705	3707	3709	3711	3713	3715		
					3717	3719	3721	3723	3725	3727	3729	3731	3733	3735	3737	3739	3741		
					3743	3745	3747	3749	3751	3753	3755	3757	3759	3761	3763	3765	3767		









SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES
SCSWDCC3	U	00000003	1	4668	
SCSWDCCM	U	00000003	1	4665	
SCSWDE	U	00000004	1	4707	
SCSWECWC	U	00000002	1	4677	
SCSWESWF	U	00000004	1	4664	
SCSWFC	U	00000010	1	4684	
SCSWFH	U	00000020	1	4683	
SCSWFLAG	X	00000000	1	4661	
SCSWFM	U	00000070	1	4681	
SCSWFS	U	00000040	1	4682	
SCSWICTL	U	00000002	1	4718	
SCSWIL	U	00000040	1	4713	
SCSWISIC	U	00000020	1	4673	
SCSWKEYM	U	000000F0	1	4662	
SCSWL	U	0000000C	1	4722	
SCSWPCI	U	00000080	1	4712	
SCSWPNOP	U	00000001	1	4678	
SCSWPRGM	U	00000020	1	4714	
SCSWPROT	U	00000010	1	4715	
SCSWSAS	U	00000010	1	4693	
SCSWSINT	U	00000008	1	4694	
SCSWSM	U	00000040	1	4703	
SCSWSPEN	U	00000001	1	4697	
SCSWSPRI	U	00000004	1	4695	4224
SCSWSSEC	U	00000002	1	4696	
SCSWSSIC	U	00000008	1	4675	
SCSWSUSC	U	00000008	1	4663	
SCSWUC	U	00000002	1	4708	
SCSWUS	X	00000008	1	4701	4223
SCSWUX	U	00000001	1	4709	
SEGTABLS	U	00003000	1	4424	4425 4556 4427
SSARCHMD	X	000000A3	1	4810	
SSARS	F	00000120	4	4866	
SSCLKCMP	F	000000E0	8	4860	
SSCPUTIM	F	000000D8	8	4859	
SSCRS	F	000001C0	4	4869	
SSFPRS	D	00000160	8	4867	
SSGRS	F	00000180	4	4868	
SSMODEL	F	0000010C	4	4864	
SSPREFIX	F	00000108	4	4863	
SSPSW	F	00000100	8	4862	
SSXSAA	A	000000D4	4	4858	
STFLDATA	F	000000C8	4	4831	
SUBDWORD	I	00000BE8	4	4272	4175 4258
SUBDWSAV	D	00000C10	8	4285	4272 4282
SUBTEST	X	000021FF	1	4554	3564 3589
SVCICODE	H	0000008A	2	4790	
SVCIID	F	00000088	4	4786	
SVCIILC	X	00000089	1	4788	
SVCIILCM	U	0000000C	1	4789	
SVCNPSW	F	00000060	8	4773	
SVCOPSW	F	00000020	8	4745	4752

SYMBOL	TYPE	VALUE	LENGTH	DEFN	REFERENCES		
TEST91	I	00000244	4	3577	3551		
TESTADDR	U	000021FE	1	4418	4419	4551	
TESTNUM	X	000021FE	1	4553	3561	3587	
TICKSAAA	P	00000D90	8	4436	4180	4183	
TICKSBBB	P	00000D98	8	4437	4181	4185	
TICKSTOT	P	00000DA0	8	4438	4183	4184	4185 4188
TIMEADDR	U	000021FD	1	4419	4546		
TIMEOPT	X	000021FD	1	4548	3558	3577	
TIMER	F	00000050	4	4769			
TNUM	X	00000000	1	4453	3586		
TST91LOP	U	0000024E	1	3583	4157		
TSUBNUM	X	00000001	1	4454	3588		
TTDES	F	00000054	4	4770			
UA0	F	00000010	8	4742			
UA1	F	0000004C	4	4767			
UA2	F	000000A4	4	4812			
UA3	F	000000B4	4	4821			
UA4	X	000000B8	1	4822			
UA5	X	000000CC	8	4832			
UA6	X	000000EC	8	4838			
UA7	F	00000118	8	4849			
UA8	X	00000180	32	4878			
WPSW0008	3	00000B30	8	4207	4206		
ZBRKADDR	A	00000110	8	4848			
ZEMONCNT	F	0000010C	4	4847			
ZEMONCTR	A	00000100	8	4845			
ZEMONSIZ	F	00000108	4	4846			
ZEXTNPSW	X	000001B0	16	4881			
ZEXTOPSW	X	00000130	16	4873			
ZIONPSW	X	000001F0	16	4885			
ZIOOPSW	X	00000170	16	4877			
ZMCKNPSW	X	000001E0	16	4884			
ZMCKOPSW	X	00000160	16	4876			
ZMKFAILA	F	000000F8	8	4840			
ZMONCODE	F	000000B0	8	4815			
ZPGMNPSW	X	000001D0	16	4883			
ZPGMOPSW	X	00000150	16	4875			
ZPGMTRX	F	000000A8	8	4814			
ZRSTNPSW	X	000001A0	16	4880			
ZRSTOPSW	X	00000120	16	4872			
ZSASDISP	U	000011C0	1	4886			
ZSVCNPSW	X	000001C0	16	4882			
ZSVCOPSW	X	00000140	16	4874			
=CL6 'CLCLE '	C	00000D54	6	4410	4147		
=F '0 '	F	00000D4C	4	4408	4156		
=F '1 '	F	00000D50	4	4409	4278		
=P '4294967296 '	P	00000D5A	6	4411	4184		



DESC	SYMBOL	SIZE	POS	ADDR
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Entry: 0

Image	IMAGE	12289	0000-3000	0000-3000
Region	CODE	12289	0000-3000	0000-3000
CSECT	CLCLE04	12289	0000-3000	0000-3000

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

```
1 /devstor/dev/satk/samples/tests/CLCLE-04-performance.asm
2 /home/tn529/dev/satk/srcasm/satk.mac
```

**\*\* NO ERRORS FOUND \*\***