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00000000      1  *-----
00000000      2  * Title       : MCD Monitor Program
00000000      3  * Written by : Ethan Daugherty
00000000      4  * Date       : March 18, 2023
00000000      5  * Description:
00000000      6  *-----
00000000      7
00000000      8  STACK    EQU    $1FFFE
00000000      9  DATA    EQU    $10000
00000000     10  LINE     EQU    $11000
00000000     11  SIM      EQU    0      ;Change to 0 for hardware : 1 for simulator
00000000     12  CR       EQU    $0D ;ASCII Carriage return
00000000     13  LF       EQU    $0A ;ASCII LINE FEED
00000000     14  TAB      EQU    $9  ;ASCII TAB
00000000     15  VL      EQU    $7C
00000000     16  CL      EQU    $0C
00000000     17  ESC     EQU    $1B
00000000     18  BS      EQU    $08
00000000     19  DEL     EQU    $7F
00000000     20  SPA     EQU    $20
00000000     21
00000000     22
00000000     23      ORG $00000
00000000= 0001FFFE     24      DC.L    STACK
00000000= 00006000     25      DC.L    BOOT
00000000     26
00000000     27
00000000     28
00006000     29  BOOT:    ORG $06000
00006000  4EB9 0000633A     30      JSR INIT_DUART
00006006     31      IF.B    SIM <NE> #00 THEN.L
00006010  123C 0000     32      MOVE.B  #$00,D1
00006014  103C 000C     33      MOVE.B  #12,D0
00006018  4E4F     34      TRAP    #15
0000601A  2E7C 0001FFFE     35      MOVE.L  #STACK,A7
00006020     36      ENDI
00006020  43F9 00006CB1     37      LEA BANNER,A1
00006026  4EB9 00006738     38      JSR PRINT
0000602C  4EB9 00006372     39      JSR GET_CHAR
00006032  B03C 000D     40      CMP.B  #CR,D0
00006036  6700 0004     41      BEQ  CASCADE
0000603A  60C4     42      BRA  BOOT
0000603C     43
0000603C     44  *-----INFINITE LOOP-----
0000603C     45  CASCADE:
0000603C  43F9 0000784C     46      LEA MENU,A1
00006042  4EB9 00006738     47      JSR PRINT
00006048  4EB9 000063EE     48      JSR GET_LN
0000604E  4EB9 00006066     49      JSR EXECUTE
00006054  60E6     50      BRA  CASCADE
00006056     51  *-----
00006056     52  *-----CLEAN-----
00006056= 0C 0D 0A 00     53  CN  DC.B    CL,CR,LF,0
0000605A  43F8 6056     54  CLEAN:  LEA CN,A1
0000605E  4EB9 00006738     55      JSR PRINT
00006064     56
00006064  4E75     57      RTS
00006066     58  *-----EXECUTE COMMAND-----
00006066     59  EXECUTE:
00006066  43F9 00011000     60      LEA     LINE,A1
0000606C  4280     61      CLR.L   D0
0000606E  3011     62      MOVE.W  (A1),D0
00006070     63
00006070  B07C 524D     64  READM   CMP.W  #('RM'),D0
00006074  6600 000C     65      BNE    MODM
00006078  4EB9 00006134     66      JSR    RM
0000607E  6000 00A0     67      BRA    BACK
00006082  B07C 4D4D     68  MODM    CMP.W  #('MM'),D0
00006086  6600 000C     69      BNE    MEMD
0000608A  4EB9 00006166     70      JSR    MM
00006090  6000 008E     71      BRA    BACK
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00006094	B07C	4D44	72	MEMD	CMP.W	#('MD'),D0
00006098	6600	000C	73		BNE	READR
0000609C	4EB9	00006192	74		JSR	MD
000060A2	6000	007C	75		BRA	BACK
000060A6	B07C	5252	76	READR	CMP.W	#('RR'),D0
000060AA	6600	000C	77		BNE	MODR
000060AE	4EB9	00006194	78		JSR	RR
000060B4	6000	006A	79		BRA	BACK
000060B8	B07C	4D52	80	MODR	CMP.W	#('MR'),D0
000060BC	6600	000C	81		BNE	LOAD
000060C0	4EB9	000061C8	82		JSR	MR
000060C6	6000	0058	83		BRA	BACK
000060CA	B07C	4C44	84	LOAD	CMP.W	#('LD'),D0
000060CE	6600	000C	85		BNE	RUN
000060D2	4EB9	0000621C	86		JSR	LD
000060D8	6000	0046	87		BRA	BACK
000060DC	B07C	4343	88	RUN	CMP.W	#('CC'),D0
000060E0	6600	0018	89		BNE	HELP
000060E4	4EB9	000062E2	90		JSR	CC
000060EA	6000	0034	91		BRA	BACK
000060EE	B07C	5453	92	TS	CMP.W	#('TS'),D0
000060F2	6600	0006	93		BNE	HELP
000060F6	6000	003A	94		BRA	EX
000060FA	E048		95	HELP	LSR.W	#8,D0
000060FC	B03C	003F	96		CMP.B	#('?'),D0
00006100	6600	000C	97		BNE	SECRET
00006104	4EB9	000062FE	98		JSR	HLP
0000610A	6000	0014	99		BRA	BACK
0000610E	B03C	002A	100	SECRET	CMP.B	#('*'),D0
00006112	6600	001E	101		BNE	EX
00006116	4EB9	00006310	102		JSR	SCRT
0000611C	6000	0002	103		BRA	BACK
00006120	4EB9	000063EE	104	BACK	JSR	GET_LN
00006126	43F9	00011000	105		LEA	LINE,A1
0000612C	3011		106		MOVE.W	(A1),D0
0000612E	6000	FF36	107		BRA	EXECUTE
00006132	4E75		108	EX	RTS	
00006134			109			
00006134			110		*-----READ MEMORY-----	
00006134	48E7	FFFF	111	RM:	MOVEM.L	D0-D7/A0-A7,-(A7)
00006138	4EB9	000065CE	112		JSR	GET_MEM
0000613E	4EB9	00007FA0	113		JSR	MEM_P
00006144	4CDF	FFFF	114		MOVEM.L	(A7)+,D0-D7/A0-A7
00006148	4E75		115		RTS	
0000614A			116		*-----MODIFY MEMORY-----	
0000614A=	4D 45	4D 4F 52 59 ...	117	MMSG	DC.B	'MEMORY HAS BEEN MODIFIED',CR,LF,0
00006166	48E7	FFFF	118	MM:	MOVEM.L	D0-D7/A0-A7,-(A7)
0000616A	4EB9	00006624	119		JSR	GET_MEM1
00006170	4EB9	00007F48	120		JSR	CHNG_M
00006176	43F9	00006746	121		LEA	TITLE,A1
0000617C	4EB9	00006738	122		JSR	PRINT
00006182	43F8	614A	123		LEA	MMSG,A1
00006186	4EB9	00006738	124		JSR	PRINT
0000618C	4CDF	FFFF	125		MOVEM.L	(A7)+,D0-D7/A0-A7
00006190	4E75		126		RTS	
00006192			127	MD:	JSR	GET_MEM
00006192			128	*	JSR	MEM_P1
00006192	4E75		129		RTS	
00006194			130		*-----READ REGISTERS-----	
00006194	48E7	FFFF	131	RR:	MOVEM.L	D0-D7/A0-A7,-(SP)
00006198	4EB9	0000805A	132		JSR	G_REG
0000619E	4EB9	0000806C	133		JSR	REG_D
000061A4	4CDF	FFFF	134		MOVEM.L	(SP)+,D0-D7/A0-A7
000061A8	4E75		135		RTS	
000061AA			136		*-----MODIFY REGISTERS-----	
000061AA=	52 45	53 49 54 45 ...	137	MSG	DC.B	'RESITERS HAVE BEEN MODIFIED',CR,LF,0
000061C8	48E7	80F0	138	MR:	MOVEM.L	A0-A3/D0,-(SP)
000061CC	4EB9	0000642A	139		JSR	GET_REG
000061D2	4EB9	000064BE	140		JSR	MDREG
000061D8	43F9	00006746	141		LEA	TITLE,A1
000061DE	4EB9	00006738	142		JSR	PRINT
000061E4	43F8	61AA	143		LEA	MSG,A1
000061E8	4EB9	00006738	144		JSR	PRINT
000061EE	4CDF	0F01	145		MOVEM.L	(SP)+,A0-A3/D0
000061F2	4E75		146		RTS	

000061F4		147	*-----LOAD S-RECORD-----
000061F4= 49 4E 56 41 4C 49 ...		148	INV DC.B 'INVALID',CR,LF,0
000061FE		149	
000061FE= 46 49 4C 45 20 4C ...		150	SUCCESS DC.B 'FILE LOADED SUCCESSFULLY!!!',CR,LF,0
0000621B		151	
0000621C 48E7 FF70		152	LD: MOVEM.L D0-D7/A1/A2/A3,-(SP)
00006220		153	
00006220 45F9 00010000		154	LEA DATA,A2
00006226 43F9 00006746		155	LEA TITLE,A1
0000622C 4EB9 00006738		156	JSR PRINT
00006232 4283		157	CLR.L D3
00006234 6000 0002		158	BRA LD1
00006238		159	
00006238		160	LD1
00006238 4EB9 000063B6		161	JSR GET_CHAR1
0000623E B03C 0053		162	CMP.B #('S'),D0
00006242 66F4		163	BNE LD1
00006244		164	
00006244 4EB9 000063B6		165	JSR GET_CHAR1
0000624A B03C 0039		166	CMP.B #('9'),D0
0000624E 6700 000E		167	BEQ LD2
00006252 B03C 0038		168	CMP.B #('8'),D0
00006256 6700 0006		169	BEQ LD2
0000625A 6000 001E		170	BRA LD4
0000625E		171	
0000625E 43F9 00006746		172	LD2 LEA TITLE,A1
00006264 4EB9 00006738		173	JSR PRINT
0000626A 43F8 61FE		174	LEA SUCCESS,A1
0000626E 4EB9 00006738		175	JSR PRINT
00006274 4CDF 0EFF		176	MOVEM.L (SP)+,D0-D7/A1/A2/A3
00006278 4E75		177	RTS
0000627A		178	LD4
0000627A B03C 0031		179	CMP.B #('1'),D0
0000627E 6700 002A		180	BEQ LD5
00006282 B03C 0032		181	CMP.B #('2'),D0
00006286 66B0		182	BNE LD1
00006288 4203		183	CLR.B D3
0000628A 6100 004C		184	BSR LD7
0000628E 5900		185	SUB.B #4,D0
00006290 1400		186	MOVE.B D0,D2
00006292 4280		187	CLR.L D0
00006294 6100 0042		188	BSR LD7
00006298 E180		189	ASL.L #8,D0
0000629A 6100 003C		190	BSR LD7
0000629E E180		191	ASL.L #8,D0
000062A0 6100 0036		192	BSR LD7
000062A4 E180		193	ASL.L #8,D0
000062A6		194	
000062A6		195	* MOVE.L D0,A2
000062A6		196	*
000062A6		197	
000062A6 6000 001E		198	BRA LD6
000062AA 4203		199	LD5 CLR.B D3
000062AC 6100 002A		200	BSR LD7
000062B0 5700		201	SUB.B #3,D0
000062B2 1400		202	MOVE.B D0,D2
000062B4 4280		203	CLR.L D0
000062B6 6100 0020		204	BSR LD7
000062BA E180		205	ASL.L #8,D0
000062BC 6100 001A		206	BSR LD7
000062C0 E180		207	ASL.L #8,D0
000062C2		208	
000062C2		209	* MOVE.L D0,A2
000062C2		210	* CMP.B #0,D3
000062C2		211	* BNE LD6
000062C2		212	* ADD.B #1,D3
000062C2		213	*
000062C2		214	* MOVE.L D0,(A3)+
000062C2		215	
000062C2 6000 0002		216	BRA LD6
000062C6 6100 0010		217	LD6 BSR LD7
000062CA 14C0		218	MOVE.B D0,(A2)+
000062CC 5302		219	SUB.B #1,D2
000062CE B43C 0000		220	CMP.B #0,D2
000062D2 66F2		221	BNE LD6

000062D4		222	
000062D4		223	
000062D4		224	*           ADD.B    #1,D3
000062D4		225	*           CMP.B    #0,D3
000062D4	6000 FF62	226	BRA       LD1
000062D8		227	*           LEA       INV,A1
000062D8		228	*           JSR       PRINT
000062D8		229	*           BRA       LD2
000062D8	4EB9 00007EEC	230	LD7       JSR       BYTE
000062DE	D600	231	ADD.B    D0,D3
000062E0	4E75	232	RTS
000062E2		233	
000062E2		234	*-----RUN SRECORD-----
000062E2	48E7 FFFF	235	CC:       MOVEM.L   A0-A7/D0-D7,-(SP)
000062E6	43F9 00006746	236	LEA       TITLE,A1
000062EC	4EB9 00006738	237	JSR       PRINT
000062F2	4EB9 00010000	238	JSR       (DATA)
000062F8	4CDF FFFF	239	MOVEM.L   (SP)+,A0-A7/D0-D7
000062FC	4E75	240	RTS
000062FE		241	*-----HELP MESSAGE-----
000062FE	2F09	242	HLP:       MOVE.L   A1,-(SP)
00006300	43F9 00006928	243	LEA       HELP_MSG,A1
00006306	4EB9 00006738	244	JSR       PRINT
0000630C	225F	245	MOVE.L   (SP)+,A1
0000630E	4E75	246	RTS
00006310		247	*-----SECRET MESSAGE-----
00006310	2F09	248	SCRT:      MOVE.L   A1,-(SP)
00006312	43F9 00006746	249	LEA       TITLE,A1
00006318	4EB9 00006738	250	JSR       PRINT
0000631E	43F9 00007E84	251	LEA       HI,A1
00006324	4EB9 00006738	252	JSR       PRINT
0000632A	43F9 00007DE3	253	LEA       BOT,A1
00006330	4EB9 00006738	254	JSR       PRINT
00006336	225F	255	MOVE.L   (SP)+,A1
00006338	4E75	256	RTS
0000633A		257	*           MOVEM.L A0-A7/D0-D7,-(SP)
0000633A		258	*           LEA       MEM,A1
0000633A		259	*           MOVE.L   A1,D0
0000633A		260	*           JSR       PUT_CHAR
0000633A		261	*           MOVEM.L (SP)+,A0-A7/D0-D7
0000633A		262	
0000633A		263	
0000633A		264	*-----DUART INITIALIZING-----
0000633A	=00020000	265	DUART      EQU \$20000
0000633A	=00000001	266	MRA       EQU \$1 ;MODE REGISTER A
0000633A	=00000001	267	MRA1       EQU \$1 ;POINTS HERE AFTER MRA is SET
0000633A	=00000003	268	SRA       EQU \$3 ;STATUS REGISTER (READ)
0000633A	=00000003	269	CSRA       EQU \$3 ;CLOCK SELECT REGISTER
0000633A	=00000005	270	CRA       EQU \$5 ;COMMAND REGISTER
0000633A	=00000007	271	TBA       EQU \$7 ;TRANSFER HOLDING REGISTER
0000633A	=00000007	272	RBA       EQU \$7 ;RECIEVE HOLDING REGISTER
0000633A	=00000009	273	ACR       EQU \$9 ;AUXILIARY CONTROL REGISTER
0000633A	=00000000	274	RxRDY      EQU \$0 ;RECIEVE READY BIT POSITION
0000633A	=00000002	275	TxRDY      EQU \$2 ;TRANSMIT READY BIT POSITION
0000633A	=000000CC	276	BAUD       EQU \$CC ;BAUD RATE VALUE = 19.2K
0000633A		277	
0000633A		278	INIT_DUART:
0000633A	41F9 00020000	279	LEA       DUART,A0
00006340		280	*SOFTWARE RESET
00006340	117C 0030 0005	281	MOVE.B   #\$30,CRA(A0) ;RESETS TxA
00006346	117C 0020 0005	282	MOVE.B   #\$20,CRA(A0) ;RESETS RxA
0000634C	117C 0010 0005	283	MOVE.B   #\$10,CRA(A0) ;RESETS MRA POINTER
00006352		284	*INITIALIZAION
00006352	117C 0080 0009	285	MOVE.B   #\$80,ACR(A0) ;SELECTS BAUD RATE SET 2
00006358	117C 00CC 0003	286	MOVE.B   #BAUD,CSRA(A0) ;SETS 19.2K BAUD FOR RX/TX
0000635E	117C 0013 0001	287	MOVE.B   #\$13,MRA(A0) ;8-bits, no parity, 1 stop bi
00006364		288	
00006364	117C 0007 0001	289	MOVE.B   #\$07,MRA1(A0) ;SETS DUART in NORMAL MODE
0000636A	117C 0005 0005	290	MOVE.B   #\$05,CRA(A0) ;ENABLES Rx AND Tx
00006370		291	
00006370	4E75	292	RTS
00006372		293	
00006372		294	*-----GET CHARACTER-----
00006372		295	
00006372		296	GET_CHAR:

00006372		297	IF.B	SIM <EQ> #00 THEN.L
0000637C	48E7 4080	298	MOVEM.L	A0/D1, -(SP)
00006380	41F9 00020000	299	LEA	DUART, A0
00006386	1228 0003	300	HOLD	MOVE.B SRA(A0), D1
0000638A	0828 0000 0003	301	BTST	#RxRDY, SRA(A0)
00006390	67F4	302	BEQ	HOLD
00006392	1028 0007	303	MOVE.B	RBA(A0), D0
00006396	4EB9 000066FA	304	JSR	PUT_CHAR
0000639C	4CDF 0102	305	MOVEM.L	(SP)+, A0/D1
000063A0		306	ELSE	
000063A4	2F01	307	MOVE.L	D1, -(SP)
000063A6	7005	308	MOVE.L	#05, D0
000063A8	4E4F	309	TRAP	#15
000063AA	1001	310	MOVE.B	D1, D0
000063AC	4EB9 000066FA	311	JSR	PUT_CHAR
000063B2	221F	312	MOVE.L	(SP)+, D1
000063B4		313	ENDI	
000063B4	4E75	314	RTS	
000063B6		315	GET_CHAR1:	;get input with no echo
000063B6		316	IF.B	SIM <EQ> #00 THEN.L
000063C0	48E7 4080	317	MOVEM.L	A0/D1, -(SP)
000063C4	41F9 00020000	318	LEA	DUART, A0
000063CA	1228 0003	319	HOLD1	MOVE.B SRA(A0), D1
000063CE	0828 0000 0003	320	BTST	#RxRDY, SRA(A0)
000063D4	67B0	321	BEQ	HOLD
000063D6	1028 0007	322	MOVE.B	RBA(A0), D0
000063DA	4CDF 0102	323	MOVEM.L	(SP)+, A0/D1
000063DE		324	ELSE	
000063E2	2F01	325	MOVE.L	D1, -(SP)
000063E4	7005	326	MOVE.L	#05, D0
000063E6	4E4F	327	TRAP	#15
000063E8	1001	328	MOVE.B	D1, D0
000063EA	221F	329	MOVE.L	(SP)+, D1
000063EC		330	ENDI	
000063EC	4E75	331	RTS	
000063EE		332	*-----GET LINE-----	
000063EE		333		
000063EE	48E7 8010	334	GET_LN:	MOVEM.L A3/D0, -(SP)
000063F2	47F9 00011000	335		LEA LINE, A3
000063F8	4EB8 6372	336	NEXT	JSR GET_CHAR
000063FC	B03C 000D	337		CMP.B #CR, D0
00006400	6700 0020	338		BEQ OUT
00006404	B03C 0008	339		CMP.B #BS, D0
00006408	6700 000E	340		BEQ REMV
0000640C	B038 007F	341		CMP.B DEL, D0
00006410	6700 0006	342		BEQ REMV
00006414	6000 0008	343		BRA SKIP
00006418	47EB FFFF	344	REMV	LEA -1(A3), A3
0000641C	60DA	345		BRA NEXT
0000641E	16C0	346	SKIP	MOVE.B D0, (A3)+
00006420	60D6	347		BRA NEXT
00006422	1680	348	OUT	MOVE.B D0, (A3)
00006424	4CDF 0801	349		MOVEM.L (SP)+, A3/D0
00006428	4E75	350		RTS
0000642A		351	*-----GET REGISTERS-----	
0000642A	=00014000	352	REGR	EQU \$14000
0000642A	=00013500	353	MOD_R	EQU \$13500
0000642A	48E7 FFFF	354	GET_REG:	MOVEM.L D0-D7/A0-A7, -(SP)
0000642E	43F9 00011000	355		LEA LINE, A1
00006434	45F9 00014000	356		LEA REGR, A2
0000643A	47F9 00013500	357		LEA MOD_R, A3
00006440	1019	358	REM	MOVE.B (A1)+, D0
00006442	B03C 0020	359		CMP.B #SPA, D0
00006446	66F8	360		BNE REM
00006448	6000 0002	361		BRA RG
0000644C	1019	362	RG	MOVE.B (A1)+, D0
0000644E	B03C 0020	363		CMP.B #SPA, D0
00006452	6700 0006	364		BEQ MOD
00006456	14C0	365		MOVE.B D0, (A2)+
00006458	60F2	366		BRA RG
0000645A	1019	367	MOD	MOVE.B (A1)+, D0
0000645C	B03C 000D	368		CMP.B #CR, D0
00006460	6700 000C	369		BEQ SHIFT
00006464	4EB9 00007EDA	370		JSR H_CHAR
0000646A	16C0	371		MOVE.B D0, (A3)+

0000646C	60EC		372		BRA	MOD
0000646E	47F9	00013500	373	SHIFT	LEA	MOD_R,A3
00006474	201B		374		MOVE.L	(A3)+,D0
00006476	E908		375		LSL.B	#4,D0
00006478	E948		376		LSL.W	#4,D0
0000647A	4840		377		SWAP	D0
0000647C	E908		378		LSL.B	#4,D0
0000647E	E948		379		LSL.W	#4,D0
00006480	E048		380		LSR.W	#8,D0
00006482	4840		381		SWAP	D0
00006484	E088		382		LSR.L	#8,D0
00006486	3200		383		MOVE.W	D0,D1
00006488	4841		384		SWAP	D1
0000648A	201B		385		MOVE.L	(A3)+,D0
0000648C	E908		386		LSL.B	#4,D0
0000648E	E948		387		LSL.W	#4,D0
00006490	4840		388		SWAP	D0
00006492	E908		389		LSL.B	#4,D0
00006494	E948		390		LSL.W	#4,D0
00006496	E048		391		LSR.W	#8,D0
00006498	4840		392		SWAP	D0
0000649A	E088		393		LSR.L	#8,D0
0000649C			394			
0000649C	3200		395		MOVE.W	D0,D1
0000649E			396			
0000649E	47F9	00013500	397		LEA	MOD_R,A3
000064A4	4841		398		SWAP	D1
000064A6	E059		399		ROR.W	#8,D1
000064A8	16C1		400		MOVE.B	D1,(A3)+
000064AA	E049		401		LSR.W	#8,D1
000064AC	16C1		402		MOVE.B	D1,(A3)+
000064AE	4841		403		SWAP	D1
000064B0	E059		404		ROR.W	#8,D1
000064B2	16C1		405		MOVE.B	D1,(A3)+
000064B4	E049		406		LSR.W	#8,D1
000064B6	16C1		407		MOVE.B	D1,(A3)+
000064B8			408			
000064B8			409			
000064B8			410			
000064B8	4CDF	FFFF	411	GONE	MOVEM.L	(SP)+,D0-D7/A0-A7
000064BC	4E75		412		RTS	
000064BE			413	*-----	MOD REGS-----	
000064BE			414	MDREG:		
000064BE	47F9	00014000	415		LEA	REGR,A3
000064C4	43F9	00013500	416		LEA	MOD_R,A1
000064CA	45F9	00013000	417		LEA	REGS,A2
000064D0			418			
000064D0	301B		419		MOVE.W	(A3)+,D0
000064D2	B07C	4430	420		CMP.W	#('D0'),D0
000064D6	6600	0008	421		BNE	N1
000064DA			422	*	MOVE.L	(A1),(A2)
000064DA	2011		423		MOVE.L	(A1),D0
000064DC			424	*	MOVEM.L	(SP)+,A0-A2
000064DC	6000	00EE	425		BRA	BYE1
000064E0			426			
000064E0	B07C	4431	427	N1	CMP.W	#('D1'),D0
000064E4	6600	000A	428		BNE	N2
000064E8			429	*	MOVE.L	(A1),4(A2)
000064E8	2011		430		MOVE.L	(A1),D0
000064EA	2200		431		MOVE.L	D0,D1
000064EC	6000	00DE	432		BRA	BYE1
000064F0			433			
000064F0	B07C	4432	434	N2	CMP.W	#('D2'),D0
000064F4	6600	000A	435		BNE	N3
000064F8			436	*	MOVE.L	(A1),8(A2)
000064F8	2011		437		MOVE.L	(A1),D0
000064FA	2400		438		MOVE.L	D0,D2
000064FC	6000	00CE	439		BRA	BYE1
00006500			440			
00006500	B07C	4433	441	N3	CMP.W	#('D3'),D0
00006504	6600	000A	442		BNE	N4
00006508			443	*	MOVE.L	(A1),12(A2)
00006508	2011		444		MOVE.L	(A1),D0
0000650A	2600		445		MOVE.L	D0,D3
0000650C	6000	00BE	446		BRA	BYE1

00006510			447		
00006510	B07C	4434	448	N4	CMP.W #('D4'),D0
00006514	6600	000A	449		BNE N5
00006518			450	*	MOVE.L (A1),16(A2)
00006518	2011		451		MOVE.L (A1),D0
0000651A	2800		452		MOVE.L D0,D4
0000651C	6000	00AE	453		BRA BYE1
00006520			454		
00006520	B07C	4435	455	N5	CMP.W #('D5'),D0
00006524	6600	000A	456		BNE N6
00006528			457	*	MOVE.L (A1),20(A2)
00006528	2011		458		MOVE.L (A1),D0
0000652A	2A00		459		MOVE.L D0,D5
0000652C	6000	009E	460		BRA BYE1
00006530			461		
00006530	B07C	4436	462	N6	CMP.W #('D6'),D0
00006534	6600	000A	463		BNE N7
00006538			464	*	MOVE.L (A1),24(A2)
00006538	2011		465		MOVE.L (A1),D0
0000653A	2C00		466		MOVE.L D0,D6
0000653C	6000	008E	467		BRA BYE1
00006540			468		
00006540	B07C	4437	469	N7	CMP.W #('D7'),D0
00006544	6600	000A	470		BNE N8
00006548			471	*	MOVE.L (A1),28(A2)
00006548	2011		472		MOVE.L (A1),D0
0000654A	2E00		473		MOVE.L D0,D7
0000654C	6000	007E	474		BRA BYE1
00006550			475		
00006550	B07C	4130	476	N8	CMP.W #('A0'),D0
00006554	6600	000A	477		BNE N9
00006558			478	*	MOVE.L (A1),32(A2)
00006558	2011		479		MOVE.L (A1),D0
0000655A	2040		480		MOVE.L D0,A0
0000655C			481	*	MOVEM.L (SP)+,A1-A2/D0
0000655C			482	*	;ADD.L #1,SP
0000655C	6000	006E	483		BRA BYE1
00006560			484		
00006560	B07C	4131	485	N9	CMP.W #('A1'),D0
00006564	6600	000A	486		BNE N10
00006568			487	*	MOVE.L (A1),36(A2)
00006568	2011		488		MOVE.L (A1),D0
0000656A	2240		489		MOVE.L D0,A1
0000656C			490	*	MOVEM.L (SP)+,A0/A2/D0
0000656C	6000	005E	491		BRA BYE1
00006570			492		
00006570	B07C	4132	493	N10	CMP.W #('A2'),D0
00006574	6600	000A	494		BNE N11
00006578			495	*	MOVE.L (A1),40(A2)
00006578	2011		496		MOVE.L (A1),D0
0000657A	2440		497		MOVE.L D0,A2
0000657C			498	*	MOVEM.L (SP)+,A0/A1/D0
0000657C	6000	004E	499		BRA BYE1
00006580			500		
00006580	B07C	4133	501	N11	CMP.W #('A3'),D0
00006584	6600	000A	502		BNE N12
00006588			503	*	MOVE.L (A1),44(A2)
00006588	2011		504		MOVE.L (A1),D0
0000658A	2640		505		MOVE.L D0,A3
0000658C	6000	003E	506		BRA BYE1
00006590			507		
00006590	B07C	4134	508	N12	CMP.W #('A4'),D0
00006594	6600	000A	509		BNE N13
00006598			510	*	MOVE.L (A1),48(A2)
00006598	2011		511		MOVE.L (A1),D0
0000659A	2840		512		MOVE.L D0,A4
0000659C	6000	002E	513		BRA BYE1
000065A0			514		
000065A0	B07C	4135	515	N13	CMP.W #('A5'),D0
000065A4	6600	000A	516		BNE N14
000065A8			517	*	MOVE.L (A1),52(A2)
000065A8	2011		518		MOVE.L (A1),D0
000065AA	2A40		519		MOVE.L D0,A5
000065AC	6000	001E	520		BRA BYE1
000065B0			521		

000065B0	B07C	4136	522	N14	CMP.W	#('A6'),D0
000065B4	6600	000A	523		BNE	N15
000065B8			524	*	MOVE.L	(A1),56(A2)
000065B8	2011		525		MOVE.L	(A1),D0
000065BA	2C40		526		MOVE.L	D0,A6
000065BC	6000	000E	527		BRA	BYE1
000065C0			528			
000065C0	B07C	4137	529	N15	CMP.W	#('A7'),D0
000065C4	6600	0006	530		BNE	BYE1
000065C8			531	*	MOVE.L	(A1),60(A2)
000065C8			532			
000065C8	6000	0002	533		BRA	BYE1
000065CC			534			
000065CC			535	BYE1		
000065CC	4E75		536		RTS	
000065CE			537			
000065CE			538		*-----GET MEMORY-----	
000065CE			539		*FINDS which memory location is to be accessed	
000065CE	=00016333		540	MEM	EQU	\$16333
000065CE	=00016555		541	EDIT	EQU	\$16555
000065CE			542			
000065CE			543	GET_MEM:	;MOVEM.L A0-A7/D0-D7,-(SP)	
000065CE	43F9	00011000	544		LEA	LINE,A1
000065D4	45F9	00016333	545		LEA	MEM,A2
000065DA	49F9	00016333	546		LEA	MEM,A4
000065E0	4280		547		CLR.L	D0
000065E2	1019		548	FIND	MOVE.B	(A1)+,D0
000065E4	B03C	0020	549		CMP.B	#SPA,D0
000065E8	66F8		550		BNE	FIND
000065EA	6000	0002	551		BRA	LOC
000065EE			552	LOC		
000065EE	1019		553		MOVE.B	(A1)+,D0
000065F0	B03C	000D	554		CMP.B	#CR,D0
000065F4	6700	000C	555		BEQ	ZE
000065F8	4EB9	00007EDA	556		JSR	H_CHAR
000065FE	14C0		557		MOVE.B	D0,(A2)+
00006600	60EC		558		BRA	LOC
00006602	47F9	00016333	559	ZE	LEA	MEM,A3
00006608	4280		560		CLR.L	D0
0000660A	101B		561	ADJ	MOVE.B	(A3)+,D0
0000660C	1200		562		MOVE.B	D0,D1
0000660E	E909		563		LSL.B	#4,D1
00006610	E989		564		LSL.L	#4,D1
00006612	B5CB		565		CMPA.L	A3,A2
00006614	6700	0004	566		BEQ	BREAK
00006618	60F0		567		BRA	ADJ
0000661A	E089		568	BREAK	LSR.L	#8,D1
0000661C	26C1		569		MOVE.L	D1,(A3)+
0000661E	6000	0002	570		BRA	DONE
00006622			571	DONE	;MOVEM.L (SP)+,A0-A7/D0-D7	
00006622	4E75		572		RTS	
00006624			573		*-----GET MEM WITH EDIT-----	
00006624			574	GET_MEM1:	;MOVEM.L A0-A7/D0-D7,-(SP)	
00006624	43F9	00011000	575		LEA	LINE,A1
0000662A	45F9	00016333	576		LEA	MEM,A2
00006630	49F9	00016555	577		LEA	EDIT,A4
00006636	4280		578		CLR.L	D0
00006638	1019		579	FIND1	MOVE.B	(A1)+,D0
0000663A	B03C	0020	580		CMP.B	#SPA,D0
0000663E	66F8		581		BNE	FIND1
00006640	6000	0002	582		BRA	LOC1
00006644			583	LOC1		
00006644	1019		584		MOVE.B	(A1)+,D0
00006646	B03C	0020	585		CMP.B	#SPA,D0
0000664A	6700	000C	586		BEQ	ZE1
0000664E	4EB9	00007EDA	587		JSR	H_CHAR
00006654	14C0		588		MOVE.B	D0,(A2)+
00006656	60EC		589		BRA	LOC1
00006658	47F9	00016333	590	ZE1	LEA	MEM,A3
0000665E	4280		591		CLR.L	D0
00006660	101B		592	ADJ1	MOVE.B	(A3)+,D0
00006662	1200		593		MOVE.B	D0,D1
00006664	E909		594		LSL.B	#4,D1
00006666	E989		595		LSL.L	#4,D1
00006668	B5CB		596		CMPA.L	A3,A2



0000666A	6700	0004	597		BEQ	BREAK1
0000666E	60F0		598		BRA	ADJ1
00006670	E089		599	BREAK1	LSR.L	#8,D1
00006672	47F9	00016333	600		LEA	MEM,A3
00006678	4841		601		SWAP	D1
0000667A	16C1		602		MOVE.B	D1,(A3)+
0000667C	4841		603		SWAP	D1
0000667E	E059		604		ROR.W	#8,D1
00006680	16C1		605		MOVE.B	D1,(A3)+
00006682	E049		606		LSR.W	#8,D1
00006684	16C1		607		MOVE.B	D1,(A3)+
00006686	4284		608		CLR.L	D4
00006688	4EB9	0000821A	609		JSR	CLR_C
0000668E	1019		610	EDT	MOVE.B	(A1)+,D0
00006690	B03C	000D	611		CMP.B	#CR,D0
00006694	6700	0014	612		BEQ	ZE2
00006698	4EB9	00007EDA	613		JSR	H_CHAR
0000669E	18C0		614		MOVE.B	D0,(A4)+
000066A0	4EB9	00008204	615		JSR	COUNTER
000066A6	5204		616		ADD.B	#1,D4
000066A8	60E4		617		BRA	EDT
000066AA	47F9	00016555	618	ZE2	LEA	EDIT,A3
000066B0	4280		619		CLR.L	D0
000066B2	4281		620		CLR.L	D1
000066B4	101B		621	ADJ2	MOVE.B	(A3)+,D0
000066B6	1200		622		MOVE.B	D0,D1
000066B8	E909		623		LSL.B	#4,D1
000066BA	E989		624		LSL.L	#4,D1
000066BC	B9CB		625		CMPA.L	A3,A4
000066BE	6700	0004	626		BEQ	BREAK2
000066C2	60F0		627		BRA	ADJ2
000066C4	B83C	0004	628	BREAK2	CMP.B	#4,D4
000066C8	6700	001A	629		BEQ	WD
000066CC	B83C	0002	630		CMP.B	#2,D4
000066D0	6700	0004	631		BEQ	BYT
000066D4	60EE		632		BRA	BREAK2
000066D6	E089		633	BYT	LSR.L	#8,D1
000066D8	47F9	00016555	634		LEA	EDIT,A3
000066DE	16C1		635		MOVE.B	D1,(A3)+
000066E0	6000	0016	636		BRA	DONE1
000066E4	E089		637	WD	LSR.L	#8,D1
000066E6	47F9	00016555	638		LEA	EDIT,A3
000066EC	E059		639		ROR.W	#8,D1
000066EE	16C1		640		MOVE.B	D1,(A3)+
000066F0	E049		641		LSR.W	#8,D1
000066F2	16C1		642		MOVE.B	D1,(A3)+
000066F4	6000	0002	643		BRA	DONE1
000066F8			644	DONE1	;MOVEM.L (SP)+,A0-A7/D0-D7	
000066F8	4E75		645		RTS	
000066FA			646			
000066FA			647	*-----PUT CHARACTER-----		
000066FA			648	PUT_CHAR:	IF.B	SIM <EQ> #00 THEN.L
00006704	48E7	C080	649		MOVEM.L	A0/D0/D1,-(SP)
00006708	41F9	00020000	650		LEA	DUART,A0
0000670E	1228	0003	651	WAIT	MOVE.B	SRA(A0),D1
00006712	0828	0002 0003	652		BTST	#TxRDY,SRA(A0)
00006718	67F4		653		BEQ	WAIT
0000671A	1140	0007	654		MOVE.B	D0,TBA(A0)
0000671E	4CDF	0103	655		MOVEM.L	(SP)+,A0/D0/D1
00006722			656		ELSE	
00006726	2F00		657		MOVE.L	D0,-(SP)
00006728	2F01		658		MOVE.L	D1,-(SP)
0000672A	1200		659		MOVE.B	D0,D1
0000672C	7006		660		MOVE.L	#06,D0
0000672E	4E4F		661		TRAP	#15
00006730	1001		662		MOVE.B	D1,D0
00006732	221F		663		MOVE.L	(SP)+,D1
00006734	201F		664		MOVE.L	(SP)+,D0
00006736			665		ENDI	
00006736			666			
00006736	4E75		667		RTS	
00006738			668			
00006738			669	*-----PRINT LINES-----		
00006738			670	PRINT:		
00006738	1019		671		MOVE.B	(A1)+,D0

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0000673A 4EB8 66FA 672 JSR PUT_CHAR
0000673E B03C 0000 673 CMP.B #$0,D0
00006742 66F4 674 BNE PRINT
00006744 4E75 675 RTS
00006746 676 *-----TITLE-----
00006746 677 TITLE:
00006746= 0C 3D 3D 3D 3D 3D ... 678 DC.B CL,'=====
000067C6= 09 09 09 09 09 09 ... 679 DC.B TAB,TAB,TAB,TAB,TAB,TAB,'
000067E7= 09 09 09 09 09 09 ... 680 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' /_/\ (_/_/\ |_/_|_
00006808= 09 09 09 09 09 09 ... 681 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' \_/_/--\_) \_/_/--\|_/_|_
00006829= 3D 3D 3D 3D 3D 3D ... 682 DC.B '=====
000068A8= 3D 3D 3D 3D 3D 3D ... 683 DC.B '=====
00006928 684 *-----HELP Display Message-----
00006928 685 HELP_MSG:
00006928= 0C 3D 3D 3D 3D 3D ... 686 DC.B CL,'=====
000069A8= 09 09 09 09 09 09 ... 687 DC.B TAB,TAB,TAB,TAB,TAB,TAB,'
000069C9= 09 09 09 09 09 09 ... 688 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' /_/\ (_/_/\ |_/_|_
000069EA= 09 09 09 09 09 09 ... 689 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' \_/_/--\_) \_/_/--\|_/_|_
00006A0B= 3D 3D 3D 3D 3D 3D ... 690 DC.B '=====
00006A8A= 3D 3D 3D 3D 3D 3D ... 691 DC.B '=====
00006B09= 0D 0A 0D 0A 692 DC.B CR,LF,CR,LF
00006B0D= 09 09 09 2D 2D 2D ... 693 DC.B TAB,TAB,TAB,'---{ WELCOME TO THE CASCADE INTERFACE
00006B3E= 48 45 52 45 20 41 ... 694 DC.B 'HERE ARE SOME COMMANDS TO GET YOU STARTED:',CR,LF
00006B6A= 09 7E 20 52 45 41 ... 695 DC.B TAB,'~ READ MEMORY LOCATION: RM <MEM_LOC>',CR,LF
00006B91= 09 7E 20 52 45 41 ... 696 DC.B TAB,'~ READ BLOCK OF MEMORY LOCATIONS: MD <START_L
00006BC4= 09 7E 20 4D 4F 44 ... 697 DC.B TAB,'~ MODIFY MEMORY LOCTION: MM <MEM_LOC> <EDIT>'
00006BF3= 09 7E 20 52 45 41 ... 698 DC.B TAB,'~ READ REGISTERS: RR',CR,LF
00006C0A= 09 7E 20 4D 4F 44 ... 699 DC.B TAB,'~ MODIFY THE REGISTERS: MR <REG(A0-A7,D0-D7)
00006C42= 09 7E 20 4C 4F 41 ... 700 DC.B TAB,'~ LOAD TERMINAL WITH A FILE: LD <FILE>',CR,LF
00006C6B= 09 7E 20 52 55 4E ... 701 DC.B TAB,'~ RUN PROGRAM FILE: CC',CR,LF
00006C84= 09 7E 20 4D 41 49 ... 702 DC.B TAB,'~ MAIN MENU: TS',CR,LF
00006C96= 09 7E 20 53 45 43 ... 703 DC.B TAB,'~ SECRET: *',CR,LF
00006CA4= 09 7E 20 48 45 4C ... 704 DC.B TAB,'~ HELP: ?',CR,LF,0
00006CB1 705
00006CB1 706
00006CB1 707 *-----START UP LOGO-----
00006CB1 708 BANNER:
00006CB1= 0C 0D 0A 709 DC.B CL,CR,LF
00006CB4= 0D 0A 710 DC.B CR,LF
00006CB6= 09 09 09 09 20 20 ... 711 DC.B TAB,TAB,TAB,TAB,'
00006D08= 09 09 09 09 20 20 ... 712 DC.B TAB,TAB,TAB,TAB,'
00006D5A= 09 09 09 09 20 20 ... 713 DC.B TAB,TAB,TAB,TAB,'
00006DAC= 09 09 09 09 20 20 ... 714 DC.B TAB,TAB,TAB,TAB,'
00006DFE= 09 09 09 09 20 20 ... 715 DC.B TAB,TAB,TAB,TAB,'
00006E50= 09 09 09 09 20 20 ... 716 DC.B TAB,TAB,TAB,TAB,'
00006EA2= 09 09 09 09 20 20 ... 717 DC.B TAB,TAB,TAB,TAB,'
00006EF4= 09 09 09 09 20 20 ... 718 DC.B TAB,TAB,TAB,TAB,'
00006F46= 09 09 09 09 20 20 ... 719 DC.B TAB,TAB,TAB,TAB,'
00006F98= 09 09 09 09 20 20 ... 720 DC.B TAB,TAB,TAB,TAB,'
00006FEA= 09 09 09 09 20 20 ... 721 DC.B TAB,TAB,TAB,TAB,'
0000703C= 09 09 09 09 20 20 ... 722 DC.B TAB,TAB,TAB,TAB,'
0000708E= 09 09 09 09 20 20 ... 723 DC.B TAB,TAB,TAB,TAB,'
000070E0= 09 09 09 09 20 A6 ... 724 DC.B TAB,TAB,TAB,TAB,'
00007132= 09 09 09 09 20 20 ... 725 DC.B TAB,TAB,TAB,TAB,'
00007184= 09 09 09 09 20 20 ... 726 DC.B TAB,TAB,TAB,TAB,'
000071D6= 09 09 09 09 20 20 ... 727 DC.B TAB,TAB,TAB,TAB,'
00007228= 09 09 09 09 20 20 ... 728 DC.B TAB,TAB,TAB,TAB,'
0000727A= 09 09 09 09 20 20 ... 729 DC.B TAB,TAB,TAB,TAB,'
000072CC= 09 09 09 09 20 20 ... 730 DC.B TAB,TAB,TAB,TAB,'
0000731E= 09 09 09 09 20 20 ... 731 DC.B TAB,TAB,TAB,TAB,'
00007370= 09 09 09 09 20 20 ... 732 DC.B TAB,TAB,TAB,TAB,'
000073C2= 09 09 09 09 20 20 ... 733 DC.B TAB,TAB,TAB,TAB,'
00007414= 09 09 09 09 20 20 ... 734 DC.B TAB,TAB,TAB,TAB,'
00007466= 09 09 09 09 20 20 ... 735 DC.B TAB,TAB,TAB,TAB,'
000074B8= 09 09 09 09 20 20 ... 736 DC.B TAB,TAB,TAB,TAB,'
0000750B= 09 09 09 09 20 20 ... 737 DC.B TAB,TAB,TAB,TAB,'
0000755D= 09 09 09 09 20 20 ... 738 DC.B TAB,TAB,TAB,TAB,'
000075AF= 09 09 09 09 20 20 ... 739 DC.B TAB,TAB,TAB,TAB,'
00007601= 09 09 09 09 20 20 ... 740 DC.B TAB,TAB,TAB,TAB,'
00007653= 09 09 09 09 20 20 ... 741 DC.B TAB,TAB,TAB,TAB,'
000076A5= 0D 0A 742 DC.B CR,LF
000076A7= 09 09 09 09 20 20 ... 743 DC.B TAB,TAB,TAB,TAB,'
000076ED= 09 09 09 09 20 20 ... 744 DC.B TAB,TAB,TAB,TAB,'
00007733= 09 09 09 09 20 20 ... 745 DC.B TAB,TAB,TAB,TAB,'
00007779= 09 09 09 09 20 20 ... 746 DC.B TAB,TAB,TAB,TAB,'
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000077BF= 09 09 09 09 20 20 ... 747 DC.B TAB,TAB,TAB,TAB,'
00007805= 09 09 09 09 20 20 ... 748 DC.B TAB,TAB,TAB,TAB,'
0000784C 749
0000784C 750 *-----SYSTEM Title and MENU to display on every screen-----
0000784C 751 MENU:
0000784C= 0C 3D 3D 3D 3D 3D ... 752 DC.B CL,'=====
000078CC= 09 09 09 09 09 09 ... 753 DC.B TAB,TAB,TAB,TAB,TAB,TAB,'
000078ED= 09 09 09 09 09 09 ... 754 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' /_/\ (_/_/\ |_/_|\_
0000790E= 09 09 09 09 09 09 ... 755 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' \_/_/--\_) \_/_/--\|_/_|\_
0000792F= 3D 3D 3D 3D 3D 3D ... 756 DC.B '=====
000079AE= 3D 3D 3D 3D 3D 3D ... 757 DC.B '=====
00007A2D= 09 09 5B 52 4D 5D ... 758 DC.B TAB,TAB,'[RM]: READ MEMORY LOCAION ',TAB,'[RR]: R
00007A7B= 09 09 5B 4D 4D 5D ... 759 DC.B TAB,TAB,'[MM]: MODIFY MEMORY LOCAION',TAB,'[MR]: M
00007AC9= 3D 3D 3D 3D 3D 3D ... 760 DC.B '=====
00007B48= 0D 0A 5B 43 48 4F ... 761 DC.B CR,LF,'[CHOOSE WHICH PATTERN TO EXECUTE]',CR,LF,0
00007B6E 762
00007B6E 763
00007B6E 764
00007B6E 765 *-----Display all the registers-----
00007B6E 766
00007B6E= 09 5B 41 30 5D 3A ... 767 AD0 DC.B TAB,'[A0]: ',0
00007B76= 09 5B 41 31 5D 3A ... 768 AD1 DC.B TAB,'[A1]: ',0
00007B7E= 09 5B 41 32 5D 3A ... 769 AD2 DC.B TAB,'[A2]: ',0
00007B86= 09 5B 41 33 5D 3A ... 770 AD3 DC.B TAB,'[A3]: ',0
00007B8E= 09 5B 41 34 5D 3A ... 771 AD4 DC.B TAB,'[A4]: ',0
00007B96= 09 5B 41 35 5D 3A ... 772 AD5 DC.B TAB,'[A5]: ',0
00007B9E= 09 5B 41 36 5D 3A ... 773 AD6 DC.B TAB,'[A6]: ',0
00007BA6= 09 5B 41 37 5D 3A ... 774 AD7 DC.B TAB,'[A7]: ',0
00007BAE 775
00007BAE= 09 5B 44 30 5D 3A ... 776 DA0 DC.B TAB,'[D0]: ',0
00007BB6= 09 5B 44 31 5D 3A ... 777 DA1 DC.B TAB,'[D1]: ',0
00007BBE= 09 5B 44 32 5D 3A ... 778 DA2 DC.B TAB,'[D2]: ',0
00007BC6= 09 5B 44 33 5D 3A ... 779 DA3 DC.B TAB,'[D3]: ',0
00007BCE= 09 5B 44 34 5D 3A ... 780 DA4 DC.B TAB,'[D4]: ',0
00007BD6= 09 5B 44 35 5D 3A ... 781 DA5 DC.B TAB,'[D5]: ',0
00007BDE= 09 5B 44 36 5D 3A ... 782 DA6 DC.B TAB,'[D6]: ',0
00007BE6= 09 5B 44 37 5D 3A ... 783 DA7 DC.B TAB,'[D7]: ',0
00007BEE 784
00007BEE 785 *-----Display MEMORY-----
00007BEE 786
00007BEE 787
00007BEE 788 MEM_DISP:
00007BEE= 0C 3D 3D 3D 3D 3D ... 789 DC.B CL,'=====
00007C6E= 09 09 09 09 09 09 ... 790 DC.B TAB,TAB,TAB,TAB,TAB,TAB,'
00007C8F= 09 09 09 09 09 09 ... 791 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' /_/\ (_/_/\ |_/_|\_
00007CB0= 09 09 09 09 09 09 ... 792 DC.B TAB,TAB,TAB,TAB,TAB,TAB,' \_/_/--\_) \_/_/--\|_/_|\_
00007CD1= 3D 3D 3D 3D 3D 3D ... 793 DC.B '=====
00007D50= 3D 3D 3D 3D 3D 3D ... 794 DC.B '=====
00007DCF= 20 20 20 20 20 20 ... 795 DC.B ' B0 B1 B2 B3',CR,LF,0
00007DE3 796
00007DE3= 3D 3D 3D 3D 3D 3D ... 797 BOT DC.B '=====
00007E63 798
00007E64 2F00 799 *-----SPACE -----
00007E66 103C 0020 800 SPACE: MOVE.L D0,-(SP)
00007E6A 4EB8 66FA 801 MOVE.B #SPA,D0
00007E6E 201F 802 JSR PUT_CHAR
00007E70 4E75 803 MOVE.L (SP)+,D0
00007E72 804 RTS
00007E72= 0D 0A 00 805 *-----NEW LINE-----
00007E76 2F09 806 NEW DC.B CR,LF,0
00007E78 43F8 7E72 807 NEW_LN: MOVE.L A1,-(SP)
00007E7C 4EB8 6738 808 LEA NEW,A1
00007E80 225F 809 JSR PRINT
00007E82 4E75 810 MOVE.L (SP)+,A1
00007E84 811 RTS
00007E84= 48 45 4C 4C 4F 20 ... 812 *-----SECRET MESSAGE-----
00007E93= 57 48 41 54 20 49 ... 813 HI: DC.B 'HELLO WORLD??',CR,LF
00007EAD= 47 45 54 20 42 41 ... 814 DC.B 'WHAT IS THIS DOING HERE?',CR,LF
00007EC2 815 DC.B 'GET BACK TO WORK!!!',CR,LF,0
00007EC2 816
00007EC2 817 *-----Utility Subroutines-----
00007EC2 818
00007EC2 819
00007EC2 820 *-----ASCII to HEX-----
00007EC2 821 HEX:
00007EC2 4EB8 63B6 822 JSR GET_CHAR1

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00007EC6	0400	0030	822		SUB.B	#\$30,D0
00007ECA			823	*	BMI.S	EXT
00007ECA	B03C	0009	824		CMP.B	#\$09,D0
00007ECE	6F00	0008	825		BLE	EXT
00007ED2	5F00		826		SUB.B	#\$07,D0
00007ED4	6000	0002	827		BRA	EXT
00007ED8	4E75		828	EXT	RTS	
00007EDA			829			
00007EDA			830			
00007EDA	0400	0030	831	H_CHAR:	SUB.B	#\$30,D0
00007EDE	6B0A		832		BMI.S	LV
00007EE0	B03C	0009	833		CMP.B	#\$09,D0
00007EE4	6F00	0004	834		BLE	LV
00007EE8	5F00		835		SUB.B	#\$07,D0
00007EEA	4E75		836	LV	RTS	
00007EEC	2F01		837	BYTE:	MOVE.L	D1,-(SP)
00007EEE	4EB8	7EC2	838		JSR	HEX
00007EF2	E900		839		ASL.B	#4,D0
00007EF4	1200		840		MOVE.B	D0,D1
00007EF6	4EB8	7EC2	841		JSR	HEX
00007EFA	D001		842		ADD.B	D1,D0
00007EFC	221F		843		MOVE.L	(SP)+,D1
00007EFE	4E75		844		RTS	
00007F00	4EB8	7EEC	845	WORD:	JSR	BYTE
00007F04	E140		846		ASL.W	#8,D0
00007F06	60E4		847		BRA	BYTE
00007F08			848			
00007F08	4EB8	7F00	849	LONG:	JSR	WORD
00007F0C	4840		850		SWAP	D0
00007F0E	60F0		851		BRA	WORD
00007F10			852			
00007F10			853	*-----	OUTPUT	HEX-----
00007F10	1F00		854	OP1X:	MOVE.B	D0,-(A7)
00007F12	C03C	000F	855		AND.B	#\$0F,D0
00007F16	0600	0030	856		ADD.B	#\$30,D0
00007F1A	B03C	0039	857		CMP.B	#\$39,D0
00007F1E	6302		858		BLS.S	OP1X1
00007F20	5E00		859		ADD.B	#\$07,D0
00007F22	4EB8	66FA	860	OP1X1	JSR	PUT_CHAR
00007F26	101F		861		MOVE.B	(A7)+,D0
00007F28	4E75		862		RTS	
00007F2A	E818		863	OP2X	ROR.B	#4,D0
00007F2C	4EB8	7F10	864		JSR	OP1X
00007F30	E918		865		ROL.B	#4,D0
00007F32	60DC		866		BRA	OP1X
00007F34	E058		867	OP4X	ROR.W	#8,D0
00007F36	4EB8	7F2A	868		JSR	OP2X
00007F3A	E158		869		ROL.W	#8,D0
00007F3C	60EC		870		BRA	OP2X
00007F3E	4840		871	OP8X	SWAP	D0
00007F40	4EB8	7F34	872		JSR	OP4X
00007F44	4840		873		SWAP	D0
00007F46	60EC		874		BRA	OP4X
00007F48			875	*-----	MEM MODIFY-----	
00007F48	48E7	FFFF	876	CHNG_M:	MOVEM.L	D0-D7/A0-A7,-(SP)
00007F4C	49F9	00016333	877		LEA	MEM,A4
00007F52	45F9	00015555	878		LEA	COUNT,A2
00007F58	47F9	00016555	879		LEA	EDIT,A3
00007F5E			880			
00007F5E	4282		881		CLR.L	D2
00007F60	4281		882		CLR.L	D1
00007F62	4280		883		CLR.L	D0
00007F64	1412		884		MOVE.B	(A2),D2
00007F66	101C		885		MOVE.B	(A4)+,D0
00007F68			886			
00007F68	E188		887		LSL.L	#8,D0
00007F6A	101C		888		MOVE.B	(A4)+,D0
00007F6C			889			
00007F6C	E188		890		LSL.L	#8,D0
00007F6E	101C		891		MOVE.B	(A4)+,D0
00007F70			892			
00007F70	2A40		893		MOVE.L	D0,A5
00007F72	B43C	0004	894		CMP.B	#4,D2
00007F76	6700	0016	895		BEQ	WRD
00007F7A	B43C	0002	896		CMP.B	#2,D2

00007F7E	6700	0006	897		BEQ	BY
00007F82	6000	0016	898		BRA	BYE
00007F86	101B		899	BY	MOVE.B	(A3)+,D0
00007F88	1A80		900		MOVE.B	D0,(A5)
00007F8A	6000	000E	901		BRA	BYE
00007F8E	101B		902	WRD	MOVE.B	(A3)+,D0
00007F90	1AC0		903		MOVE.B	D0,(A5)+
00007F92	101B		904		MOVE.B	(A3)+,D0
00007F94	1A80		905		MOVE.B	D0,(A5)
00007F96	6000	0002	906		BRA	BYE
00007F9A	4CDF	FFFF	907	BYE	MOVEM.L	(SP)+,D0-D7/A0-A7
00007F9E	4E75		908		RTS	
00007FA0			909		*-----MEM DISP-----	
00007FA0	48E7	FFFF	910	MEM_P:	MOVEM.L	D0-D7/A0-A7,-(SP)
00007FA4	43F8	7BEE	911		LEA	MEM_DISP,A1
00007FA8	4EB8	6738	912		JSR	PRINT
00007FAC	49F9	00016333	913		LEA	MEM,A4
00007FB2	47F9	00016333	914		LEA	MEM,A3
00007FB8	4282		915		CLR.L	D2
00007FBA	4281		916		CLR.L	D1
00007FBC	4280		917		CLR.L	D0
00007FBE	101C		918		MOVE.B	(A4)+,D0
00007FC0	4EB8	7F10	919		JSR	OP1X
00007FC4	101C		920		MOVE.B	(A4)+,D0
00007FC6	4EB8	7F10	921		JSR	OP1X
00007FCA	101C		922		MOVE.B	(A4)+,D0
00007FCC	4EB8	7F10	923		JSR	OP1X
00007FD0	101C		924		MOVE.B	(A4)+,D0
00007FD2	4EB8	7F10	925		JSR	OP1X
00007FD6	101C		926		MOVE.B	(A4)+,D0
00007FD8	4EB8	7F10	927		JSR	OP1X
00007FDC			928			
00007FDC	4EB8	7E64	929		JSR	SPACE
00007FE0			930			
00007FE0	49F9	00016333	931		LEA	MEM,A4
00007FE6	4280		932		CLR.L	D0
00007FE8	101C		933		MOVE.B	(A4)+,D0
00007FEA	1200		934		MOVE.B	D0,D1
00007FEC	E909		935		LSL.B	#4,D1
00007FEE	E989		936		LSL.L	#4,D1
00007FF0	101C		937		MOVE.B	(A4)+,D0
00007FF2	1200		938		MOVE.B	D0,D1
00007FF4	E909		939		LSL.B	#4,D1
00007FF6	E989		940		LSL.L	#4,D1
00007FF8	101C		941		MOVE.B	(A4)+,D0
00007FFA	1200		942		MOVE.B	D0,D1
00007FFC	E909		943		LSL.B	#4,D1
00007FFE	E989		944		LSL.L	#4,D1
00008000	101C		945		MOVE.B	(A4)+,D0
00008002	1200		946		MOVE.B	D0,D1
00008004	E909		947		LSL.B	#4,D1
00008006	E989		948		LSL.L	#4,D1
00008008	101C		949		MOVE.B	(A4)+,D0
0000800A	1200		950		MOVE.B	D0,D1
0000800C	E909		951		LSL.B	#4,D1
0000800E	E989		952		LSL.L	#4,D1
00008010	E089		953		LSR.L	#8,D1
00008012	2A41		954		MOVE.L	D1,A5
00008014			955			
00008014			956			
00008014			957			
00008014	4284		958		CLR.L	D4
00008016			959			
00008016	101D		960	BYTES	MOVE.B	(A5)+,D0
00008018			961			
00008018	4EB8	7F2A	962		JSR	OP2X
0000801C	4EB8	7E64	963		JSR	SPACE
00008020			964			
00008020	5204		965		ADD.B	#1,D4
00008022	B83C	0004	966		CMP.B	#4,D4
00008026	66EE		967		BNE	BYTES
00008028	4EB8	7E76	968		JSR	NEW_LN
0000802C			969			
0000802C			970			
0000802C	43F8	7DE3	971		LEA	BOT,A1

00008030	4EB8 6738	972	JSR PRINT
00008034	4CDF FFFF	973	MOVEM.L (SP)+,D0-D7/A0-A7
00008038	4E75	974	RTS
0000803A		975	*-----CLEAR ALL-----
0000803A	4280	976	CLR_A: CLR.L D0
0000803C	4281	977	CLR.L D1
0000803E	4282	978	CLR.L D2
00008040	4283	979	CLR.L D3
00008042	4284	980	CLR.L D4
00008044	4285	981	CLR.L D5
00008046	4286	982	CLR.L D6
00008048	4287	983	CLR.L D7
0000804A	2040	984	MOVE.L D0,A0
0000804C	2240	985	MOVE.L D0,A1
0000804E	2440	986	MOVE.L D0,A2
00008050	2640	987	MOVE.L D0,A3
00008052	2840	988	MOVE.L D0,A4
00008054	2A40	989	MOVE.L D0,A5
00008056	2C40	990	MOVE.L D0,A6
00008058	4E75	991	RTS
0000805A		992	*-----READ REG-----
0000805A	=00013000	993	REGS EQU \$13000
0000805A	48E7 FFFF	994	G_REG: MOVEM.L A0-A7/D0-D7,-(SP)
0000805E		995	
0000805E		996	
0000805E	48F9 FFFF 00013000	997	MOVEM.L A0-A7/D0-D7,REGS
00008066	4CDF FFFF	998	MOVEM.L (SP)+,A0-A7/D0-D7
0000806A	4E75	999	RTS
0000806C	48E7 FFFF	1000	REG_D: MOVEM.L A0-A7/D0-D7,-(SP)
00008070	43F8 6746	1001	LEA TITLE,A1
00008074	4EB8 6738	1002	JSR PRINT
00008078	43F8 7B6E	1003	LEA AD0,A1
0000807C	4EB8 6738	1004	JSR PRINT
00008080	45F9 00013000	1005	LEA REGS,A2
00008086	202A 0020	1006	MOVE.L 32(A2),D0
0000808A	4EB8 7F3E	1007	JSR OP8X
0000808E	43F8 7BAE	1008	LEA DA0,A1
00008092	4EB8 6738	1009	JSR PRINT
00008096	45F9 00013000	1010	LEA REGS,A2
0000809C	2012	1011	MOVE.L (A2),D0
0000809E	4EB8 7F3E	1012	JSR OP8X
000080A2	4EB8 7E76	1013	JSR NEW_LN
000080A6	43F8 7B76	1014	LEA AD1,A1
000080AA	4EB8 6738	1015	JSR PRINT
000080AE	45F9 00013000	1016	LEA REGS,A2
000080B4	202A 0024	1017	MOVE.L 36(A2),D0
000080B8	4EB8 7F3E	1018	JSR OP8X
000080BC	43F8 7BB6	1019	LEA DA1,A1
000080C0	4EB8 6738	1020	JSR PRINT
000080C4	45F9 00013000	1021	LEA REGS,A2
000080CA	202A 0004	1022	MOVE.L 4(A2),D0
000080CE	4EB8 7F3E	1023	JSR OP8X
000080D2	4EB8 7E76	1024	JSR NEW_LN
000080D6	43F8 7B7E	1025	LEA AD2,A1
000080DA	4EB8 6738	1026	JSR PRINT
000080DE	45F9 00013000	1027	LEA REGS,A2
000080E4	202A 0028	1028	MOVE.L 40(A2),D0
000080E8	4EB8 7F3E	1029	JSR OP8X
000080EC	43F8 7BBE	1030	LEA DA2,A1
000080F0	4EB8 6738	1031	JSR PRINT
000080F4	45F9 00013000	1032	LEA REGS,A2
000080FA	202A 0008	1033	MOVE.L 8(A2),D0
000080FE	4EB8 7F3E	1034	JSR OP8X
00008102	4EB8 7E76	1035	JSR NEW_LN
00008106	43F8 7B86	1036	LEA AD3,A1
0000810A	4EB8 6738	1037	JSR PRINT
0000810E	45F9 00013000	1038	LEA REGS,A2
00008114	202A 002C	1039	MOVE.L 44(A2),D0
00008118	4EB8 7F3E	1040	JSR OP8X
0000811C	43F8 7BC6	1041	LEA DA3,A1
00008120	4EB8 6738	1042	JSR PRINT
00008124	45F9 00013000	1043	LEA REGS,A2
0000812A	202A 000C	1044	MOVE.L 12(A2),D0
0000812E	4EB8 7F3E	1045	JSR OP8X
00008132	4EB8 7E76	1046	JSR NEW_LN

00008136	43F8	7B8E	1047	LEA	AD4,A1
0000813A	4EB8	6738	1048	JSR	PRINT
0000813E	45F9	00013000	1049	LEA	REGS,A2
00008144	202A	0030	1050	MOVE.L	48(A2),D0
00008148	4EB8	7F3E	1051	JSR	OP8X
0000814C	43F8	7BCE	1052	LEA	DA4,A1
00008150	4EB8	6738	1053	JSR	PRINT
00008154	45F9	00013000	1054	LEA	REGS,A2
0000815A	202A	0010	1055	MOVE.L	16(A2),D0
0000815E	4EB8	7F3E	1056	JSR	OP8X
00008162	4EB8	7E76	1057	JSR	NEW_LN
00008166	43F8	7B96	1058	LEA	AD5,A1
0000816A	4EB8	6738	1059	JSR	PRINT
0000816E	45F9	00013000	1060	LEA	REGS,A2
00008174	202A	0034	1061	MOVE.L	52(A2),D0
00008178	4EB8	7F3E	1062	JSR	OP8X
0000817C	43F8	7BD6	1063	LEA	DA5,A1
00008180	4EB8	6738	1064	JSR	PRINT
00008184	45F9	00013000	1065	LEA	REGS,A2
0000818A	202A	0014	1066	MOVE.L	20(A2),D0
0000818E	4EB8	7F3E	1067	JSR	OP8X
00008192	4EB8	7E76	1068	JSR	NEW_LN
00008196	43F8	7B9E	1069	LEA	AD6,A1
0000819A	4EB8	6738	1070	JSR	PRINT
0000819E	45F9	00013000	1071	LEA	REGS,A2
000081A4	202A	0038	1072	MOVE.L	56(A2),D0
000081A8	4EB8	7F3E	1073	JSR	OP8X
000081AC	43F8	7BDE	1074	LEA	DA6,A1
000081B0	4EB8	6738	1075	JSR	PRINT
000081B4	45F9	00013000	1076	LEA	REGS,A2
000081BA	202A	0018	1077	MOVE.L	24(A2),D0
000081BE	4EB8	7F3E	1078	JSR	OP8X
000081C2	4EB8	7E76	1079	JSR	NEW_LN
000081C6	43F8	7BA6	1080	LEA	AD7,A1
000081CA	4EB8	6738	1081	JSR	PRINT
000081CE	45F9	00013000	1082	LEA	REGS,A2
000081D4	202A	003C	1083	MOVE.L	60(A2),D0
000081D8	4EB8	7F3E	1084	JSR	OP8X
000081DC	43F8	7BE6	1085	LEA	DA7,A1
000081E0	4EB8	6738	1086	JSR	PRINT
000081E4	45F9	00013000	1087	LEA	REGS,A2
000081EA	202A	001C	1088	MOVE.L	28(A2),D0
000081EE	4EB8	7F3E	1089	JSR	OP8X
000081F2	4EB8	7E76	1090	JSR	NEW_LN
000081F6	43F8	7DE3	1091	LEA	BOT,A1
000081FA	4EB8	6738	1092	JSR	PRINT
000081FE	4CDF	FFFF	1093	MOVEM.L	(SP)+,A0-A7/D0-D7
00008202	4E75		1094	RTS	
00008204			1095	*-----COUNTER-----	
00008204	=00015555		1096	COUNT EQU	\$15555
00008204	48E7	8040	1097	COUNTER:	MOVEM.L D0/A1,-(SP)
00008208	43F9	00015555	1098		LEA COUNT,A1
0000820E	1011		1099		MOVE.B (A1),D0
00008210	5200		1100		ADD.B #1,D0
00008212	1280		1101		MOVE.B D0,(A1)
00008214	4CDF	0201	1102		MOVEM.L (SP)+,D0/A1
00008218	4E75		1103		RTS
0000821A			1104	*-----CLEAR COUNT-----	
0000821A	48E7	8040	1105	CLR_C:	MOVEM.L D0/A1,-(SP)
0000821E	43F9	00015555	1106		LEA COUNT,A1
00008224	1011		1107		MOVE.B (A1),D0
00008226	4200		1108		CLR.B D0
00008228	1280		1109		MOVE.B D0,(A1)
0000822A	4CDF	0201	1110		MOVEM.L (SP)+,D0/A1
0000822E	4E75		1111		RTS
00008230			1112	*-----DELAY-----	
00008230			1113		
00008230	203C	00004000	1114	DELAY:	MOVE.L #\$4000,D0
00008236	5340		1115	time	SUB.W #1,D0
00008238	66FC		1116		BNE time
0000823A	4E75		1117		RTS
0000823C			1118		
0000823C			1119	END	BOOT ; last line of source

No errors detected

No warnings generated

# SYMBOL TABLE INFORMATION

Symbol-name	Value
-----	
ACR	9
AD0	7B6E
AD1	7B76
AD2	7B7E
AD3	7B86
AD4	7B8E
AD5	7B96
AD6	7B9E
AD7	7BA6
ADJ	660A
ADJ1	6660
ADJ2	66B4
BACK	6120
BANNER	6CB1
BAUD	CC
BOOT	6000
BOT	7DE3
BREAK	661A
BREAK1	6670
BREAK2	66C4
BS	8
BY	7F86
BYE	7F9A
BYE1	65CC
BYT	66D6
BYTE	7EEC
BYTS	8016
CASCADE	603C
CC	62E2
CHNG_M	7F48
CL	C
CLEAN	605A
CLR_A	803A
CLR_C	821A
CN	6056
COUNT	15555
COUNTER	8204
CR	D
CRA	5
CSRA	3
DA0	7BAE
DA1	7BB6
DA2	7BBE
DA3	7BC6
DA4	7BCE
DA5	7BD6
DA6	7BDE
DA7	7BE6
DATA	10000
DEL	7F
DELAY	8230
DONE	6622
DONE1	66F8
DUART	20000
EDIT	16555
EDT	668E
ESC	1B
EX	6132
EXECUTE	6066
EXT	7ED8
FIND	65E2
FIND1	6638
GET_CHAR	6372
GET_CHAR1	63B6
GET_LN	63EE
GET_MEM	65CE
GET_MEM1	6624
GET_REG	642A
GONE	64B8



G_REG	805A
HELP	60FA
HELP_MSG	6928
HEX	7EC2
HI	7E84
HLP	62FE
HOLD	6386
HOLD1	63CA
H_CHAR	7EDA
INIT_DUART	633A
INV	61F4
LD	621C
LD1	6238
LD2	625E
LD4	627A
LD5	62AA
LD6	62C6
LD7	62D8
LF	A
LINE	11000
LOAD	60CA
LOC	65EE
LOC1	6644
LONG	7F08
LV	7EEA
MD	6192
MDREG	64BE
MEM	16333
MEMD	6094
MEM_DISP	7BEE
MEM_P	7FA0
MENU	784C
MM	6166
MMSG	614A
MOD	645A
MODM	6082
MODR	60B8
MOD_R	13500
MR	61C8
MRA	1
MRA1	1
MSG	61AA
N1	64E0
N10	6570
N11	6580
N12	6590
N13	65A0
N14	65B0
N15	65C0
N2	64F0
N3	6500
N4	6510
N5	6520
N6	6530
N7	6540
N8	6550
N9	6560
NEW	7E72
NEW_LN	7E76
NEXT	63F8
OP1X	7F10
OP1X1	7F22
OP2X	7F2A
OP4X	7F34
OP8X	7F3E
OUT	6422
PRINT	6738
PUT_CHAR	66FA
RBA	7
READM	6070
READR	60A6
REGR	14000
REGS	13000
REG_D	806C
REM	6440

REMOV	6418
RG	644C
RM	6134
RR	6194
RUN	60DC
RXRDY	0
SCRT	6310
SECRET	610E
SHIFT	646E
SIM	0
SKIP	641E
SPA	20
SPACE	7E64
SRA	3
STACK	1FFFE
SUCCESS	61FE
TAB	9
TBA	7
TIME	8236
TITLE	6746
TS	60EE
TXRDY	2
VL	7C
WAIT	670E
WD	66E4
WORD	7F00
WRD	7F8E
ZE	6602
ZE1	6658
ZE2	66AA
_00000000	6020
_00000001	63A4
_00000002	63B4
_00000003	63E2
_00000004	63EC
_00000005	6726
_00000006	6736