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45800 SUBTTL CLOAD,CSAVE,CONSOLE
45820 ;
45840 ; THE CONSOLE COMMAND ALLOWS THE USER TO CHANGE THE I/O CHANNEL
45860 ; THAT THE USER TERMINAL IS ON. BY GIVING THE COMMAND CONSOLE X
45880 ; WHERE X IS SOME INTEGER THE TERMINAL DEVICE WILL BE PULLED FROM
45900 ; CHANNELS X AND X+1. RESTARTING AT LOCATION ZERO FORCES THE TERMINAL
45920 ; TO BE ON CHANNEL ZERO AGAIN.
45940 ;
45960 IFN CONSSM,<
45980 INTERNAL CONSD00
CONSD00: XRA A ;FORCE A CHANNEL ZERO CONSOLE
46000 CALL CONSD2 ;ON RESTART AT ZERO
46020 JMP READY ;TYPE "OK" AND ACCEPT INPUT
CONSD0: CALL GETBY1 ;FETCH AN INTEGER INTO (A)
46040 RNZ ;CHECK FOR A TERMINATOR
46060
CONSD2:
46100 IFN REALIO,<
46120 STA CNLCA1 ;CHANGE ALL THE FLAG INPUT CHANNEL REFERENCES
46140 STA CNLCA2
46160 STA CNLCA3>
46180 IFN LENGTH,<
46200 STA CNLCA4>
46220 STA CNLCA4>
46240 INR A ;(A)=DATA INPUT CHANNEL
46260 STA CNLCA1 ;CHANGE ALL THE DATA INPUT CHANNEL REFERENCES
46280 STA CNLCA2
46300 STA CNLCA3
46320 IFN CASSM,<
46340 ;
46360 ; CASIN READS A CHARACTER FROM THE CASSETTE
46380 ; INTO (A) WITHOUT MODIFYING ANYTHING BUT (A) AND THE CONDITION
46400 ; CODES
46420 ;
46440 CASIN: IN 6 ;ROUTINE TO READ A CHARACTER
46460 ANI 0D0NE ;FROM THE CASSETTE INTO (A)
46480 JNZ CASIN
46500 IN 7 ;READ THE DATA
46520 RET
46540 ;
46560 ; CASOUT OUTPUTS THE CHARACTER IN (A) TO THE CASSETTE
46580 ; WITHOUT MODIFYING ANYTHING
46600 ;
46620 TWOCSD: CALL CASOUT ;DOUBLE OUT OF (A)
46640 CASOUT: PUSH PSW ;ROUTINE TO WRITE A CHARACTER IN (A)
46660 CASL: IN 6 ;ONTO THE CASSETTE
46680 ANI 0D0NE
46700 JNZ CASL ;WAIT TILL CASSETTE IS READY
46720 POP PSW ;GET THE CHARACTER BACK
46740 OUT 7 ;OUTPUT THE CHARACTER
46760 RET
46780 ;
46800 ; THE CSAVE COMMAND WRITES A PROGRAM ONTO CASSETTE BY DUMPING
46820 ; BASICS CORE. THE HEADER IS THREE 211'S FOLLOWED BY A ONE
46840 ; CHARACTER FILE NAME. THE END IS THREE ZEROS IN A ROW.

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46860 ;
46880 CSAVE: PUSH H
46900 MVI A,211
46920 CALL CASOUT ;PUT OUT THE START BYTES
46940 CALL TWOCSD ;TWO MORE TIMES
46960 MOV A,M ;GET FILENAME
46980 CALL CASOUT ;STORE AFTER 211'S
47000 LPHD TITAB ;START OF PROGRAM
47020 XCHG
47040 LPHD VARTAB ;END OF PROGRAM
47060 LOPCS0: LDAX 0 ;GET A BYTE FROM THE PROGRAM
47080 INX 0
47100 CALL CASOUT ;SEND IT OUT TO THE CASSETTE
47120 CMPAH ;THE END?
47140 JNZ LOPCS0 ;IF NOT,OUTPUT MORE
47160 CALL TWOCSD ;TWO MORE 0'S TO MARK THE END
47180 POP H ;RESTORE THE TEXT POINTER
47200 CHRGET ;GO PAST THE FILE NAME
47220 RET
47240 ;
47260 ; THE CLOAD COMMAND CLEARS CORE AND THEN READS A PROGRAM
47280 ; FROM CASSETTE. SINCE THE LINKS OF THE FILE ON CASSETTE
47300 ; WILL BE WRONG IF THE FILE WAS SAVED WITH A DIFFERENT VERSION OF
47320 ; BASIC FINI IS JUMPED TO, A SCRATCH IS DONE AT THE START SO RESTARTS
47340 ; AT 0 WON'T LEAVE THINGS IN A GARBAGE STATE.
47360 ;
47380 CLOAD: STA FACLO ;SAVE THE FILENAME
47400 CALL SCRTCH ;RESET EVERYTHING
47420 LOPCLK: MVI B,3 ;NUMBER OF START CHARACTERS
47440 LOPCL2: CALL CASIN ;GET A CHARACTER
47460 CPT 211 ;START CHARACTER?
47480 JNZ LOPCLK ;NO, RESET COUNT AND LOOK SOME MORE
47500 DCR B ;DECREMENT THE COUNT
47520 JNZ LOPCL2 ;SEEN THREE YET?
47540 LXI H,FACLO ;POINT AT THE FILENAME
47560 CALL CASIN ;READ THIS FILENAME
47580 CMP H ;THE RIGHT FILE?
47600 JNZ LOPCLK ;IF NOT,START COMPLETELY OVER
47620 LPHD TITAB ;PLACE TO STORE THE PROGRAM
47640 DUCKS: MVI B,4 ;NUMBER OF ZEROS TO GET
47660 ;BEFORE STOPPING
47680 DUCSMR: CALL CASIN ;GET A CHARACTER
47700 MOV M,A ;STORE IT
47720 CALL REASON ;MAKE SURE THERE IS ROOM
47740 MOV A,M ;RESET THE CHARACTER
47760 ORA A ;A ZERO?
47780 INX H
47800 JNZ DUCKS ;RESET # OF ZEROS SEEN
47820 DCR B ;DECREMENT NUMBER OF ZEROS
47840 JNZ DUCSMR ;SEEN FOUR?
47860 SHLD VARTAB ;SETUP END OF PROGRAM
47880 LXI H,REDUO ;TYPE "OK" PREMATURELY
47900 CALL STRUT

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Form-4 Evaluation

7760 47920 JMP FIN1> ;FIX UP THE LINKS AND GO BACK TO MAIN
7761 47940 PAGE

7762 47960 SUBTTL PEAK AND POKE
7763 47980 IFN LENGTH=2,<
7764 48000 IFE LENGTH=2,<
7765 011314' 001000 000315 IGET AN INTEGER IN (M,L)
7766 011315' 000000 011025*
7767 011316' 000000 011311'
7768 011317' 001000 000176
7769 48040 MOV A,M> IGET THE VALUE TO RETURN
7770 48060 IFN LENGTH=2,<
7771 48080 PEEK: CALL POSINT IGET THE VALUE OF FACLO INTO (D,E)
7772 48100 LDAX D> IREAD THE VALUE
7773 011320' 001000 000303 IAND FLOAT IT
7774 011321' 000000 007400'
7775 011322' 000000 011315'
7776 48140 IFE LENGTH=2,<
7777 48160 POKE: CALL FNMVL
7778 011323' 001000 000315
7779 011324' 000000 005336'
7780 011325' 000000 011321'
7781 011326' 001000 000345
7782 011327' 001000 000315
7783 011328' 000000 011315*
7784 011329' 000000 011324*
7785 011330' 001000 000343
7786 48220 IFN XTHL> IGET BACK THE TEXT POINTER
7787 48240 IFN LENGTH=2,<
7788 48260 POKE: CALL INT102 IREAD LOCATION TO POKE
7789 48280 PUSH D> ISAVE THE LOCATION
7790 48300 SYNCHK 44 ICHECK FOR A COMMA
7791 48320 CALL GETBYT
7792 48340 POP D IGET THE ADDRESS BACK
7793 48360 STAX D ISTORE IT AWAY
7794 48380 RET> ISCANED EVERYTHING
7795 48400 ;
7796 48420 ; NOTE: IN THE 8K PEEK ONLY ACCEPTS POSITIVE NUMBERS UP TO 32767
7797 48440 ; POKE WILL ONLY TAKE AN ADDRESS UP TO 32767 , NO
7798 48460 ; FUDGING ALLOWED, THE VALUE IS UNSIGNED.
7799 48480 ;
7800 011336' 48500 ;C1=P
7801 48520 END

NO ERRORS DETECTED

PROGRAM BREAK IS 011343

10K CORE USED

From LA Evaluator

A	000007	CNLC1	003114	SIN	DCOMP	000702	EXT
ABS	000107	CNLC2	003127	SIN	DCMRT	011204	EXT
AFIF	000104	CNLC3	003461	SIN	DU1V	000700	EXT
ALLST	002354	CNLC4	003303	SIN	DEF	007411	EXT
ALLSTR	010570	CNLCB1	003124	SPD	DEFFIN	007521	EXT
ANDURD	005571	CNLCB2	003136	SPD	DEL	011271	EXT
APPLUP	005642	CHTCN	003465		DELETE	011245	EXT
ARG	001054	CNTWFL	001541	INT	DFACLO	001033	INT
ARGLO	001645	CULIS	002705		DIH	006500	EXT
ARYSTR	010177	CUMPR1	004553		DIHCON	006473	EXT
ARYTAB	001623	CUNIA	006405	EXT	DIHFLG	001542	EXT
ARYVAR	010137	CUNINT	011023		DIHIS	003524	EXT
ARYVAR	010140	CUNSIH	006041	EXT	DMULT	000676	EXT
ASC	010515	CUNSSH	000000	SPD	DNTCPY	004217	EXT
ASPA2	004626	CUNT	003542		DJASIG	005056	EXT
ASPA2	004627	CUNTRW	000001	SPD	DUCMP	006375	EXT
ATN	000137	CUNTW	000017		DUCOND	004554	EXT
ATNFIX	000137	CUPNUM	004237		DUOSP	005756	EXT
ATNTK	000300	COS	000131	EXT	DUININ	006146	EXT
B	000000	CUSFIX	000131	INT	DUNHUL	007326	EXT
BTLTLP	002013	CK	000015	SPD	DURES	001544	EXT
BLTU	002005	CRDO	004523	INT	DUSIZT	004621	EXT
BLTUC	002010	CRDONE	002753		DSCTHP	001570	EXT
BOTCON	000016	CRFIN	004534		DSKFUN	000000	SPD
BKRTXT	001734	CRUNCH	002533		DSUB	000674	EXT
BOERR	007077	CNLOUP	000345		DVGERR	002075	INT
BUF	001431	CURLIN	001607	INT	DVAR	010214	EXT
BUFLIN	000110	CZLOUP	002316		DVAR2	010213	EXT
BUFLIN	011163	D	000002		DVAR3	010214	EXT
BUFRIN	001434	DADU	000072	EXT	E	000003	EXT
C	000001	DANDUN	006437		EATEM	006535	EXT
CASSH	000000	DATA	004072		EDIT	000632	EXT
CAT	010320	DATATK	000203	SPD	ELSE	004074	EXT
CHAD	002302	DATBK	005025		ELGETK	000620	SPD
CHKCOM	004540	DATFND	005166		END	003474	EXT
CHKSTR	010432	DATLIN	001577		ENDCON	003501	EXT
CHRS	010532	DATLOP	005163		ENDREL	005415	EXT
CHRGON	003433	DATPTR	001627		ENDTK	000620	SPD
CHRSTR	003424	DATSNL	002004		EQUILT	000620	EXT
CLEAR	003703	DELSP	000672		ERRRS	000011	SPD
CLEARC	002443				ERRCN	000021	SPD
CLMHIU	000016	SPD			ERRDD	000012	SPD
					ERRDIN	000752	EXT
					ERRDVO	000013	SPD
					ERRFC	000005	SPD
					ERRFIN	002127	EXT
					ERRIO	000014	SPD
					ERRLS	000017	SPD
					ERRNF	000001	SPD
					ERRRO	000004	SPD

ERRRH	000007	SPD	FPWR	000000	EXT	INCHR	003126	EXT
ERRRK	002102	INT	FPWRQ	005562	EXT	INDLOP	006754	EXT
ERRUV	000000	SIN	FRCLBL	005751	EXT	INER	000000	EXT
ERRRG	000003	SPD	FRCLNT	011330	EXT	INIT	002163	EXT
ERRRN	000002	SPD	FRCSNG	007506	EXT	INLIN	002776	EXT
ERRSO	000016	SPD	FRCTST	000000	EXT	INLINC	003003	EXT
ERRST	000020	SPD	FRCTBL	000664		INLINN	002772	EXT
ERRTAB	000730		FRE	007537		INLPMH	007652	EXT
ERRTH	000015	SIN	FRFAC	010434		INPCON	004157	EXT
ERRUF	000022	SPD	FRESTH	010431		INPCON	004765	EXT
ERRUS	000010	SPD	FRETMD	010437		INPRT	002141	EXT
EVAL	000001		FRETMP	010440		INPUT	004711	EXT
EXCHGT	004100		FRETOP	001573	INT	INPRMO	010720	EXT
EXIGNT	005142		FRMGH	005337		INRART	000000	EXT
EXP	000127	EXT	FRMEVL	005336		INT	000000	EXT
EXPATK	005553		FSUB	000706	EXT	INTUSP	000716	EXT
EXTFNC	000001	SPD	FUNCT3	000001	SPD	INTI02	003623	EXT
FAC	001642	INT	FUNOSP	001033		INTIOX	003622	EXT
FACUBL	005775		GARBA2	010042		INTXT	001720	INT
FACLO	001637	INT	GARBAG	010026		INXHRT	002664	EXT
FACNG	000034		GETAGN	004741		ISART	006745	EXT
FADD	000704	EXT	GETBCU	007752	EXT	ISCONT	003660	EXT
FADUS	000200	EXT	GETBYT	011020		ISFVN	004204	EXT
FALSIF	004363		GETDEF	007245		ISGOSU	004306	EXT
FBUFR	001655	INT	GETFNM	007550		ISIGN	000000	EXT
FCEKH	010776	INT	GETSPA	007772		ISLET	003612	EXT
FCOMP	005274	EXT	GETSTK	002024		ISLBC	006534	EXT
FOLV	000712	EXT	GETYPE	006307	INT	ISUB	000720	EXT
FIN	011064	EXT	GIVDBL	007372		ISVAR	006164	EXT
FINBCK	010546		GIVINT	007402		KLOOP	002544	EXT
FINGO	006276		GUNE	005370		LABACK	000005	EXT
FINI	002276		GUNE2	003376		LABNUM	006162	EXT
FININL	004516		GUNE3	003375		LEFT3	010552	EXT
FINNDH	007331		GUODCH	003044		LEFT2	010550	EXT
FINPTR	006742		GUSUB	003770		LEFT3	010556	EXT
FINWEL	006005		GUSUTK	000214		LEN	010501	EXT
FINTHP	005544		GUTO	004010		LEN1	010505	EXT
FLGINP	001602		GUTOTK	000210	SPD	LENGTH	000002	SPD
FLOAT	000000	EXT	GRBPAS	010254		LEPSKP	002117	EXT
FLOATR	000000	EXT	GREATK	000257				
FLOTR	000710	EXT	GISTTC	011017				
FNDPDR	001744		H	000004				
FNDLIN	002371		HAVTYP	006574				
FNDUER	007443		IADU	000716	EXT			
FNDVAR	010045		ICOMP	000726	EXT			
FNINP	010712		IDIV	000724	EXT			
FNOUT	010725		IDONE	000001	SPD			
FNTK	000243	SPD	IF	004325				
FNALIT	010733		IFORDN	003267				
FOR	003154		IFT	000212	SPD			
FORTK	000201	SPD	ILLFUN	010776	INT			
FOUND	002646		IMULT	000722	EXT			
FOUT	007565	EXT						

LESSTK	000261	MOVHM	010154*	EXT	OMERR	002057*	INT
LET	004131*	MOVSTK	010417*		ONEFUN	000262	
LINCHK	004475*	MULDIM	000001	SPD	ONELIN	002365*	
LINGET	003642*	MUSTCK	002817*		ONEUN	003265*	
LINGT2	003643*	NEG	000000	EXT	ONGUTO	004271*	
LINLEN	000110	NEWCHR	004407*		OPRTYP	001544*	
LINLIN	002764*	NEWSTI	003302*		OPTAB	000163*	
LINMPT	011134*	NEXT	005225*		OWFIN	006463*	
LINPT1	003103*	NEXTC	005630*		OUTDEL	003061*	
LINPT2	003574*	NFERH	002100*		OUTCON	003065*	
LINPT3	004474*	NHARY1	007051*		OUTOD	000030*	INT
LINPT4	004557*	NHARY2	007050*		OUTWRD	010730*	
LIST	011072*	NHREL	000003	SPD	PARCHK	006136*	
LIST4	011077*	NUDATI	002710*		PEEK	011314*	
LISTEN	000001	NUDEL	002227*		PLOUP	011170*	
LOG	000125*	NOPRIN	003113*		PLUSTK	000250	INT
LOOP	002374*	NOSEC	006547*		PUKE	011323*	
LOOPDN	005320*	NOTABR	004637*		PUPGOF	001774*	
LOOPER	001750*	NOTOIM	007152*		PUPHPT	000000	EXT
LOOPON	004307*	NUTER	006412*		PUS	007406*	
LOPOT2	004773*	NUFPDU	007104*		PPSART	010024*	
LOPFDIA	007015*	NUFPNS	006071*		PREAM	010764*	
LOPFPD	006623*	NUFRFP	006272*		PREAM2	010767*	
LOPPTA	007135*	NUITI1	006660*		PRINT	004411*	
LOPREL	005563*	NUITST	010477*		PRINTC	004414*	
LOPPER	005341*	NUITL	003176*		PRINTA	000251	SPD
LPTLEN	000110	NUITL1	004755*		PRIT3	011437*	
LPTSH	000000	NUITV	005360*		PRIT4	011167*	
LSTUPK	000007	NUITHR	010753*		PHTNUL	004537*	
M	000006	NUITK	006246	SPD	PIS	000006	SPD
MAIN	002105*	NUITKL	005367*		PTNGT	004503*	
MAKINT	007404*	NUMGET	005053*		PTNGT2	006512*	
MEMSIZ	001545*	NUMLIN	005214*		PUFOUT	000000	EXT
MIS	010643*	NTHIS	002736*		PURE	000000	SPD
MID2	010645*	NTHSL	002742*		PUSHM	006036*	EXT
MINUTK	000251	NULCNI	000046*		PUSHMA	000100*	
MLOOP	011275*	NULL	003566*		PUTOE1	007524*	
MLOUPR	002266*	NUMCMU	000040		PUTNEW	007705*	
MORCOM	004566*	NUMFBN	000051	SPD	PVAL	004461*	
MORLIN	003646*	NUMINS	005070*		Q	000002	
MORPK	004410*	NUMLEV	000025	SPD	QINLIN	002522*	INT
MOVE	000000	NUMREL	005476*		QINT	000000	EXT
MOVFN	005253*	NUMTNP	000005	SPD			
MOVFK	005746*	NUMTOS	000070	SPD			
MOVINS	010407*	NXTCON	003276*				
MOVLP	010420*	NXTRES	002625*				
MOVMP	007476*	ODUNE	000200	SPD			
MOVKF	006044*	OKGOTO	004366*				
		OKNORM	000251*				
		OLDLIN	001611*				
		OLDTXT	001613*				

RAMBOT	020000	SNGOO	006026*		TABER	004577*	
READ	004760*	SNGOSP	000704*		TABTK	003240	
READY	002145*	SNGFLI	007400*		TAN	000135*	EXT
REALIO	000001	SP	000006		TANPIX	000135*	INT
REASON	002045*	INT	000262	SPD	TEMP	011603*	
REDDY	001725*	SWR	000121*	EXT	TEMP2	001605*	INT
REDINP	004136*	SWRPIX	000121*		TEMP3	001575*	INT
REM	004074*	SWRTK	000271	SPD	TEMP6	007124*	
REMER	004103*	STAINP	010754*		TEMPPT	001547*	INT
REMTK	000216	STANT	000000*		TEMPST	001551*	
REPINI	002162*	STEPTA	000247		THEHTK	000245	
REPUOT	004632*	STKUBL	005725*		THEHR	005703*	EXT
RESCRI	011216*	STKINI	002470*		TUFF	003605*	
RESER	002627*	STKSHG	000021*		TUN	003604*	
RESFIN	003453*	STKTOP	001615*	INT	TOPLON	000035	SPD
RESLST	000172*	STMOSP	000564*		TUTA	000241	SPD
RESRCH	011214*	STOP	003472*		TKCFLG	001631*	
RESTOR	003446*	STPENO	003500*		TKMND	004667*	
RETAOP	003554*	STPROV	002144*		TKMOK	005111*	
RETURN	004044*	STRS	007564*		TRYAGN	004444*	
RIGHTS	010631*	STR1	002716*		TRYG12	007774*	
RND	000123*	STRAD1	007632*		TRYIN	003126*	
RNOFIX	000123*	STRAD2	007627*		TRYOUT	003113*	
RUN	003754*	STRCMP	006320*		TSTACK	000000	EXT
RUNC	002437*	STRCPY	007601*		TSTOP	005357*	
RUNC2	004007*	STRUN2	005077*		TTICMN	000001	SPD
SCNLIN	002333*	STRUON	004507*		TTICMN	000001	SPD
SCRATH	002421*	STRENO	001625*	INT	TTICMN	003037*	
SCRATK	000237*	STRFIN	007665*		TTIYST	004616*	
SCRCTH	002422*	STRGET	007646*		TTYPUS	000047*	
SETUBL	005750*	STRING	000001	SPD	TYAK	010063*	
SETIU	010031*	STRINL	007624*		UATTAB	001617*	INT
SGN	000103*	STRILT	007637*	INT	UNULT	007267*	EXT
SIGN	000050*	STRILT2	007643*		USEHR	004037*	
SIGNC	000055*	STRILT3	007642*		USINTK	000244	SPD
SIGNS	000373*	STRILT1	007640*		USRLDC	000111*	
SIN	000133*	STRING	002727*		VAL	011042*	
SINPIX	000133*	STROUI	007742*	INT	VALINT	000000	EXT
SKPHRF	004365*	STROUT	007743*	INT	VALSNG	000000	EXT
SKPVAR	010130*	STRPH2	007755*		VALTYP	001543*	INT
SNLVAL	007322*	STRPH1	007746*		VARTAB	001621*	
SNKR	002072*	STRSIZ	000003	SPD	VINT	000105*	EXT
SNGOBL	005743*	STUFFH	002667*		VMOVAF	005777*	EXT
		SUBFLG	001601*		VMOVE	007724*	EXT
		SVAR	010102*		VMOVFA	000000	EXT
		SVANS	010077*		VMOVFN	006200*	EXT
		TABENU	002653*		VMOVNF	004264*	EXT
					VNEG	006160*	EXT
					VPUSHU	005536*	
					VUSION	004347*	EXT

Form 14 EVALUATE