

THE
TI SLAVES
AND
ODDEN TI USERS
GROUPS
NEWSLETTER

MAY 1991



PLEASE HELP OUT!

PAID PROGRAMS

FAIRWARE, SHAREWARE AND FREEWARE. WHAT DO THESE TERMS MEAN? DOES IT MEAN THAT JUST BECAUSE THE AUTHOR OFFERS THE PROGRAM WITHOUT CHARGE THAT WE ARE FREE OF ANY OBLIGATIONS?

NOT REALLY. WHAT ABOUT ALL THE TIME THAT THE AUTHOR HAS PUT INTO THE PROGRAM? ALL THE DISKS THAT ARE USED? THERE ARE MANY EXPENSES THAT A AUTHOR COMES ACROSS DURING THE PROGRAMMING PROCESS THAT HE/SHE PROBABLY WON'T RECOVER. IT'S ONLY FAIR THAT THE USERS OF THE PROGRAM HELP SUPPORT THESE AUTHORS.

EVERYDAY, AUTHORS ARE DROPPING AWAY FROM THE PROGRAMMING MARKET. THEY DON'T RECEIVE OUR HELP TO ENCOURAGE THEM TO CONTINUE ON. IF IT WASN'T FOR THESE "UNSUNG" HEROES, THE TI COMPUTER WOULD PROBABLY BE IN THE JUNK PILE ALONG WITH ALL THE OTHERS THAT HAVE FALLEN BY THE WAYSIDE. WE HAVE A STRONG COMPUTER THAT IS EVEN STRONGER TODAY BECAUSE OF ALL THE FREEWARE, SHAREWARE AND FAIRWARE THAT IS AVAILABLE TO US.

AUTHORS LIKE BJ MATHIS, BARRY BOONE, TOM WILLS, DR. CHARLES GOODE AND MIKE KIMBLE (ONLY TO MENTION A FEW), ARE PROGRAMMERS THAT NEED OUR HELP. THERE ARE MANY, MANY MORE THAT NEED OUR SUPPORT ALONG WITH THOSE FEW MENTIONED. THESE PEOPLE SPEND MANY HOURS WRITING THE PROGRAMS, REWRITING, ADVERTISING AND SUPPORTING THE USERS WHEN THEY HAVE QUESTIONS. MANY TIMES HAVE I CALLED Tom WILLS DOWN IN TUCSON, AZ WITH QUESTIONS ABOUT THE PARADIGM BBS

PROGRAM THAT WE ARE USING IN THE OGDEN TI USERS GROUP. MANY TIMES HAS TOM CALLED ME BACK, LONG DISTANCE TO DISCUSS THE FIXES OR THE TIMES HE HAS CALLED THE SALT FLATS BBS TO CHECK ON THE OPERATION OF THE PROGRAM AND SUGGEST POSSIBLE SOLUTIONS. DO YOU THINK THAT THESE AUTHORS CAN AFFORD TO DO THIS FREE OF CHARGE?

I'M NOT SAYING THAT I'M PERFECT, NOR ANY OF THE AUTHORS BUT, THEY DO DESERVE SOMETHING FOR THEIR EFFORT. EVEN IF YOU USE THEIR PROGRAM BUT DON'T THINK IT'S WORTH WHAT THEY ARE ASKING FOR IT YOU SHOULD SEND THEM SOMETHING. ANYTHING IS BETTER THEN NOTHING. IF THEY ARE ASKING \$30.00 FOR THE PROGRAM, FOR AN EXAMPLE. BUT YOU CAN'T AFFORD THE \$30.00 ALL AT ONCE. SEND THEM WHAT YOU CAN NOW AND MAYBE A LITTLE MORE LATER. DO YOU THINK THAT THEY DON'T UNDERSTAND HOW FINANCIALLY STRAPPED WE ALL BECOME AT TIMES? ALL THEY ASK IS FOR YOUR SUPPORT. CALL THEM ON THE PHONE AND TELL THEM HOW MUCH YOU APPRECIATE THEIR TIME AND EFFORT. SEND THEM A CARD OR NOTE EXPRESSING HOW MUCH YOU APPRECIATE THEM. WHATEVER IT IS, DO IT. AND DO IT NOW. THEY NEED TO HEAR FROM ALL OF US.

YOU KNOW, IF I WERE AN AUTHOR (SOMEDAY I HOPE TO BE) AND I WAS ASKING \$30.00 FOR MY PROGRAM, I WOULD BE VERY HAPPY TO RECEIVE \$15.00 FROM A USER, IF BECAUSE OF NO OTHER REASON BUT BECAUSE THAT'S WHAT THE PERSON THOUGHT THAT MY PROGRAM WAS WORTH TO HIM. AT LEAST THAT ONE PERSON CARED ENOUGH TO SAY SO AND SUPPORT THE EFFORT.

LET'S HELP OUR AUTHORS OUT THERE. REMEMBER, IF IT

WASN'T FOR THEM, WE WOULD ALL STILL BE USING TERMINAL EMULATOR II OR DISK MAMAGER II, OR THE LIKES. LOOK AT WHAT WE HAVE GOT AND LET'S ALL JUMP IN THERE AND SUPPORT THE EFFORTS AND TALENTS OF THE AUTHORS.

THE PRECEEDING IS THE SOLE OPINION OF DAVE DeHEER, SYSOP OF THE SALT FLATS BBS AND GROUP MEMBER OF THE OGDEN TI USERS GROUP. OTHER OPINIONS ARE INVITED.

THE SALT FLATS BBS

IT HAS BEEN TWO MONTHS SINCE I STARTED THE SALT FLATS BBS. IT DOESN'T SEEM ALL THAT LONG AGO THAT I HAD THE DESIRE TO START MY OWN BBS AND STARTED LOOKING FOR EVERY BBS PROGRAM THAT I COULD FIND AND TEST THEM ALL. MANY HOURS WERE SPENT IN FRONT OF THE COMPUTER MAKING CHANGES, RE-WRITING AND TESTING. AFTER MANY MONTHS OF THIS, IT WAS DECIDED THAT PARADIGM BBS SOFTWARE FROM TOM WILLS IN TUCSON, AZ BE THE PROGRAM OF CHOICE.

WELL, SINCE THAT TIME, WE HAVE HAD OVER 50 PEOPLE WITH ALL TYPES OF COMPUTERS LOG ONTO OUR BBS LEAVING OVER 900 MESSAGES. THERE HAS ALSO BEEN OVER 550 CALLS TO THE BBS. WHEN YOU THINK OF IT IN THOSE TERMS, IN ONLY TWO MONTHS WE'VE HAD SOME GREAT ACTIVITY.

I BELIEVE THAT THAT SAYS ALOT FOR THE EASE OF THE PROGRAM AND FOR THE TI-99/4A COMPUTER. DURING THIS TIME, WE HAVE NOT EXPERIENCED ANY HARDWARE FAILURES THAT WERE CAUSED BY ANYTHING OTHER THAN THE POWER OR THE SYSOP. WE HAVE HAD SOME MINOR SOFTWARE PROBLEMS BUT, THEY

TO ARE BEING FIXED. HERE IN THE NEAR FUTURE WE WILL HAVE A HARD DISK ON THE BOARD THAT WILL HOLD ALL THE UP AND DOWNLOADS OF THE SYSTEM. I HOPE TO HAVE THE MYARC HFDC CARD REAL SOON FROM DIRECT. WITH IT I PLAN TO INSTALL AT LEAST TWO 20 MEG HARD DRIVES AND TWO DS/HD FLOPPY DRIVES (I STILL HAVE A HARD TIME IMAGINING THE TI WITH THAT MUCH SPACE).

ALTHOUGH THE BBS IS MINE, IT IS FULLY SUPPORTED BY THE OGDEN TI USERS GROUP. THE GROUP CONTINUES TO GIVE MAXIMUM SUPPORT AND SUGGESTIONS CONTINUOUSLY IMPROVE THE BBS.

MY MANY THANKS GOES OUT THE TOM WILLS OF THE SOUTHWEST NINETY-NINERS IN TUCCSON, AZ. FOR THE MANY UNSELFISH HOURS THAT HE HAS DEVOTED IN ASSISTING ME, AND TO DAVE MISCHLER, PRESIDENT OF THE OGDEN TI USERS GROUP. IF IT WASN'T FOR DAVE WHO SPENT MANY LATE, LATE NIGHTS CALLING AND TESTING THE PROGRAM FOR ME, I PROBABLY WOULDN'T HAVE SUCCEEDED THIS FAR THIS FAST. THERE ARE OTHERS WHO HELPED ALSO. MEL BRAGG, WHO TESTED THE BOARD USING HIS IBM/CLONE (YECH!), AND HAROLD HILBURN WHO TESTED OUT THE 300 BPS FEATURE. EVERYONE OF THESE INDIVIDUALS PLAYED AN IMPORTANT PART IN THE FORMATION OF THE SALT FLATS. DAVE SPENT A LONG TIME CONVINCING ME THAT IT WAS A GREAT IDEA DURING THOSE TIMES WHEN I HAD SECOND THOUGHTS. TO HAROLD AND MEL WHO KEPT INSISTING THAT OUR OWN BBS, RAN ON A TI, WOULD MAKE A PLACE IN NORTHERN UTAH BBS HISTORY. TO THESE PEOPLE AND FRIENDS, I SAY THANK YOU.

A REAL SPECIAL THANKS

SLAVES & OTIUG 3

MUST GO OUT TO ASSOCIATED BUSINESS PRODUCTS OF UTAH. THEY ARE FURNISHING US WITH THE PHONE LINE FOR THE DOS. EVEN THOUGH WE CAN'T USE THE LINE DURING THE WEEKDAYS, IT STILL SAVES A BIG EXPENSE WITH THE PHONE BILL.

To SUPPORT THE SALT FLATS BBS, CALL MONDAY THROUGH FRIDAY, 5:00 PM TO 8:00 AM OR ANYTIME DURING THE WEEKENDS AND HOLIDAYS AT 801-392-9102. WE SUPPORT 3/12/2400 BAUD RATES. ANSI OR ADM3A TERMINATIONS AT 8,N,1

SUBMITTED BY: DAVE DEHEER, SysOp, THE SALT FLATS BBS OGDEN, UTAH

WHAT ARE WE DOING HERE?????

WHAT ARE WE DOING HERE? AS MEMBERS OF THE USERS GROUP, ARE WE REALLY PERFORMING UP TO OUR EXPECTATIONS, OR OF THOSE AROUND US? WHY ARE WE MEMBERS OF THE GROUP? IS IT TO LEARN HOW TO PROGRAM, TO HELP OTHERS LEARN OR JUST TO HAVE SOMETHING TO DO WITH OUR TIME?

THERE ARE MANY QUESTIONS THAT WE COULD ASK OF OURSELVES AND OTHERS AS TO WHY WE ARE HERE AND WE WOULD RECEIVE AS MANY DIFFERENT ANSWERS AS THERE ARE MEMBERS. BUT, WE MUST ASK OURSELVES, "WHY ARE WE HERE?".

ALL OF US HAVE DIFFERENT TALENTS THAT WE COULD AND SHOULD BE SHARING WITH THE OTHER MEMBERS OF OUR GROUP. SOME OF US HAVE THE ABILITY TO UNDERSTAND PROGRAMMING WHILE OTHERS UNDERSTAND PROGRAMS. STILL, OTHERS KNOW HOW TO TEACH SO THAT OUR

MEMBERS UNDERSTAND WHAT'S GOING ON. I ASK MYSELF DAILY, "WHERE CAN I BE OF THE MOST ASSISTANCE IN HELPING OTHERS? I UNDERSTAND WHAT I KNOW?". I ENJOY TEACHING, BEING THE INSTRUCTOR. THAT WAY, I LEARN MORE FROM THOSE THAT I'M TEACHING. I CAN'T THINK OF EVERY POSSIBLE SITUATION WITH ALL PROGRAMS. IT'S THE STUDENTS THAT ASK QUESTIONS THAT I HAVE TO THINK ABOUT OR LOOK UP THE ANSWERS FOR THAT CONSTANTLY THRILLS ME. ALBERT EINSTEIN ONCE SAID WHEN HE WAS ASKED ABOUT WHAT MAKES AN INTELLIGENT MAN, "THE MARK OF INTELLIGENCE IS NOT HOW MUCH A MAN KNOWS BUT, IF HE KNOWS WHERE TO LOOK FOR THE ANSWER". IT DOESN'T TAKE "SMARTS" TO TEACH, ONLY THE MATERIAL TO TEACH FROM. THEREFORE, ALL OF US HAVE THAT ABILITY. THE ABILITY TO HELP OTHERS LEARN. WE ALL STARTED WITH NOTHING WHEN WE WERE FIRST INTRODUCED TO THE WORLD OF COMPUTING, AND NOW WHERE ARE WE. ARE WE BORED WITH THE COMPUTER? IF SO, THEN WE HAVEN'T LEARNED VERY MUCH ABOUT IT. THERE IS ALWAYS SOMETHING NEW TO LEARN. IF WE HAVE LEARNED IT ALL, THEN WE BECOME BORING TO OTHERS.

AS I STATED, WE ARE ALL DIVERSIFIED IN OUR ABILITIES. AND WE ALL HAVE ROOM TO GROW MORE. I ENJOY LEARNING HOW TO PROGRAM BUT, IT INTERESTS ME MORE TO LEARN HOW A PROGRAM WORKS. I DON'T UNDERSTAND ASSEMBLY WELL BUT, I'M WILLING TO LEARN. AND SINCE I'VE BECOME A SysOp, I'VE BEEN FORCED TO LEARN A LITTLE ABOUT ASSEMBLY. BEING FORCED INTO DOING SOMETHING IS NOT ALWAYS THE MOST FUN OF WAYS TO DO SOMETHING BUT, I TAKE THE CHALLENGE AND ACCEPT THE RESPONSIBILITY. WHY, BECAUSE I WANT TO BE A SysOp. THAT'S WHY.

IF YOU WANT TO LEARN HOW TO PROGRAM, THEN ACCEPT THE RESPONSIBILITY OF LEARNING HOW. IF YOU ARE HAPPY AND CONTENT WITH JUST RUNNING PROGRAMS THAT ARE ALREADY WRITTEN, THAT'S FINE ALSO. LEARN HOW TO USE IT AND THEN TEACH OTHERS TO USE IT AS WELL. WE CAN'T ALL BE EXPERTS ON ALL SUBJECTS, JUST A FEW.

DON'T LET THE USERS GROUP DOWN BY NOT PARTICIPATING, ACT NOW AND SHARE WITH THE GROUP YOUR SPECIAL TALENTS. THAT'S HOW WE ALL LEARN. THERE ARE ALWAYS NEW PROGRAMS THAT NEED TO BE WRITTEN AND NEW PROGRAMS THAT NEED TO BE TAUGHT.

WON'T YOU PLEASE HELP? THE USERS GROUP NEEDS YOUR TALENTS.

THE PRECEEDING IS THE SOLE OPINION OF DAVE DEHEER, SYSOP OF THE SALT FLATS BBS.

DM 1000 HELP

AT MAIN MENU:

FCTN-3 =ENTER List Device AND CONTROL CODES (DEFAULT=PIO)
OPTION TO SAVE CODES AND SCREEN COLORS TO DISK WITH '(PROGRAM NAME)' I.E MGR1 ON IT.

WITH CATALOG ON SCREEN:

FCTN-7 =PRINT CATALOG TO LIST DEVICE (DEFAULT=PIO)

WITH FILE LIST ON SCREEN:

FCTN-6 =PROCEED WITH GIVEN COMMANDS

IN LEFT FIELD:

C = COPY FILE
D = DELETE FILE

M = COPY/DELETE
T = TYPE DIS/FIX 80 FILE TO SCREEN
P = PRINT DIS/FIX 80FILE TO LIST DEVICE SENDING PREDEFINED CONTROL CODES

WHEN TYPING FILE:

FCTN-8 = RETYPE FILE
FCTN-9 = RETURN TO DISK MENU

FCTN-4 = ABORT
AN 'EOF' NOTICE IS GIVEN IN LOWER LEFT CORNER OF SCREEN WHEN END OF FILE IS REACHED

WHEN PRINTING FILE:

FCTN-8 = REPRINT FILE
FCTN-9 = RETURN TO DISK MENU
FCTN-4 = ABORT

IN RIGHT FIELD:

T = UNPROT/TEMPORARY
U = UNPROTECT FILE
P = PROTECT FILE

TYPE OVER NAME TO RENAME FILE WITH DISK INITIALIZATION MENU:

FCTN-E = GO BACK TO PREVIOUS QUESTION

VALID AT:- # OF SIDES
-S/D DENSITY
-VERIFY Y/N

RUN IMAGE PROGRAM:

NOTE!! FILE MUST EXIST OR COMPUTER WILL HANG.
XBASIC 'CALL INIT' IS DONE IF MODULE IS INSTALLED.
'XB VDP' MEANS MAKE VDP REGISTERS THE SAME AS XBASIC.
'EA VDP' MEANS MAKE REGISTERS THE SAME AS E/A.

MISC:

FCTN-1=DELETE CHARACTER
FCTN-2=INSERT 1 CHARACTER
FCTN-5=GO TO MAIN MENU
FCTN-8=REDO SELECTED MENU
FCTN-9=GO BACK ONE MENU LEVEL
FCTN-S=MOVE CURSOR LEFT
FCTN-D=MOVE CURSOR RIGHT
FCTN-E=MOVE CURSOR UP
FCTN-X=MOVE CURSOR DOWN
CAUTION!! WITH MYARC CONTROLLER DO NOT RENAME MGR1 OR MGR2

We wish to give credit to the PUGET SOUND OWNERS who printed this All Purpose Handy Dandy Reference sheet in their APRIL 85 Newsletter.

QUICK REFERENCE SHEET					
COLOR CODES		PATTERN IDENTIFIER		ERROR CODES	
COLOR	VALUE	CONVERSION TABLE		FIRST	COMMAND OR STATEMENT
TRANSPARENT	1	0	0 0 0 0	0	OPEN
BLACK	2	0	0 0 1 0	1	CLOSE
MED. GREEN	3	0	0 1 0 0	2	INPUT
LT. GREEN	4	0	0 1 0 1	3	PRINT
DARK BLUE	5	0	0 1 1 0	4	RESTORE
LT. BLUE	6	0	0 1 1 1	5	OLD
DK. RED	7	0	1 0 0 1	6	SAVE
CYAN	8	0	1 0 1 1	7	DELETE
MED. RED	9	0	1 0 1 1	8	EOF
LT. RED	10	0	1 0 0 1	SECOND	TYPE OF ERROR
DK. YELLOW	11	0	1 0 0 1	0	0 DRIVE NOT FOUND
LT. YELLOW	12	0	1 0 0 1	1	1 DEVICE or FILE WRITE PROTECTED
DK. GREEN	13	0	1 1 0 0	2	2 BAD OPEN ATTRIBUTE
MAGENTA	14	0	1 1 0 1	3	3 ILLEGAL OPERATION
GRAY	15	0	1 1 1 0	4	4 OUT OF SPACE
WHITE	16	0	1 1 1 1	5	5 ATTEMPT TO READ PAST END OF FILE
		0	1 1 1 1	6	6 DEVICE ERROR or HARDWARE ERROR
		F	1 1 1 1	7	7 FILE ERROR - File or disk does not exist

ASCII CODES							
CODE	CCODE	CODE	CODE	CODE	CODE	CODE	CODE
30	48	0	65	A	82	R	99
31	49	1	66	B	83	S	116
32	50	2	67	C	84	T	117
33	51	3	68	D	85	U	118
34	52	4	69	E	86	V	119
35	53	5	70	F	87	W	120
36	54	6	71	G	88	X	121
37	55	7	72	H	89	Y	122
38	56	8	73	I	90	Z	123
39	57	9	74	J	91	~	124
40	58	:	75	K	92	\	125
41	59	;	76	L	93	/	126
42	60	<	77	M	94	-	127
43	61	>	78	N	95	=	DEL
44	62	>	79	O	96	:	ELSE
45	63	?	80	P	97	@	INPUT
46	64	?	81	Q	98	b	DATA
47	/		82	R	99	d	RESTORE
			83	S	100	f	RANDOMIZE

CALL KEY VALUE OF KEYSTROKES			JOYSTICK RETURN VALUES
CHARACTER SETS	CODE	KEYSTROKE	
SET ASCII CODES	1	FCTN 7	UP
30-31	2	FCTN 4	(0,4)
32-39	3	FCTN 1	
40-47	4	FCTN 2	(-4,4) (4,4)
48-55	5	FCTN -	
56-63	6	FCTN 6	
64-71	7	FCTN 3	
72-79	8	FCTN 5	(-4,0) (4,0)
80-87	9	FCTN D	(-4,0) (4,0) LEFT RIGHT
88-95	10	FCTN X	
96-103	11	FCTN E	
104-111	12	FCTN 6	(-4,-4) (4,-4)
112-119	13	ENTER	
120-127	14	FCTN 5	(0,-4) DOWN
128-131	15	FCTN 9	
144-151/BASIC			
152-159/ONLY			

EXTENDED BASIC STATEMENTS					
CONTROL CODES					
ASC PRESS	COMMENTS	ACCEPT	DISTANCE	KEY	ON WARNING SCREEN
1 CTRL A	START OF HEADING	CHAR	END	LET	OPEN SOUN
2 CTRL B	START OF TEXT	CHARPAT	ERR	LINK	OPTION BASE SPSET
3 CTRL C	END OF TEXT	CHARSET	FOR	LINPUT	PATTERN SPRITE
4 CTRL D	END OF TRANS.	CLEAR	GCHAR	LOAD	PEEK STDF
5 CTRL E	INQUIRY	CLOSE	GOSUS	LOCATE POSITION	SUB
6 CTRL F	ACKNOWLEDGE	COINC	GOTO	MAGNIFY PRINT	
7 CTRL G	BELL	COLOR	HCHAR	MOTION RANDOMIZE	
8 CTRL H	BACKSPACE	DATA	IF THEN	NEXT READ	
9 CTRL I	HORIZ. TAB	DEF	IMAGE	ON BREAK REM	
10 SHIFT/ENTR	LINE FEED	DESPRITE	INIT	ON ERROR RESTORE	
11 CTRL K	VERTICAL TAB	DIM	INPUT	ON GOSUS RETURN	
12 CTRL L	FORM FEED	DISPLAY	JOYST	ON GOTO SAY	
13 ENTER	CARRIAGE RETURN			CALL LOAD	
14 CTRL N	SHIFT OUT				
15 CTRL O	SHIFT IN				
16 CTRL P	DATA LINK ESCAPE	ADDRESS	PARAMETERS	DESCRIPTION	
17 CTRL Q	DEVICE CONTROL 1	-32748	POKE #255	RATE of FLASH of CURSOR	
18 CTRL R	DEVICE CONTROL 2	-31786	POKE 192	DISABLE SPRITE action	
19 CTRL S	DEVICE CONTROL 3	-31804	PEEK X,Y	Returns to Title Screen	
20 CTRL T	DEVICE CONTROL 4	-31886	POKE X,Y		
21 CTRL U	NEG. ACKNOWLEDGE		POKE 16	DISABLE SQUIT KEY(fctn -)	
22 CTRL V	SYNCHRONOUS IDLE		POKE 32	DISABLES SOUND	
23 CTRL W	END OF TRANSMIS.		POKE 64	DISABLES AUTOSPRITE MOTION	
24 CTRL X	CANCEL		POKE 4	Goes to Console BASIC after 'NEW' is typed	
25 CTRL Y	END OF MEDIUM	-31860	POKE 8	Runs DS1.LOAD	
26 CTRL Z	SUBSTITUTE	-31876	POKE 8-26	Highest # SPRITE in motion	
27 CTRL .	ESCAPE	-31866	POKE 63,255	Disable Disk,NEW +resUME	
28 CTRL ,	FILE SEPARATOR	-31831	POKE 8/128	Unprotects/Protects program	
29 CTRL ;	GROUP SEPARATOR	-31962	POKE 72	Returns to TITLE SCREEN	
30 CTRL :;	RECORD SEPARATOR	-31962	POKE 35	Runs DS1.LOAD	
31 CTRL ?	UNIT SEPARATOR	-31952	PEEK A,E,C,D	Recover program with LOAD #No Speech	
127 SHIFT V	DELETE CHARACTER	-28672	PEEK A	96-Speech Syn. #No Speech	

SLAVES AND STUG ©

TI-99/4A ERROR CODE REFERENCE CHART

The following courtesy BBBB BBS in Clinton, MD. (301-292-1482), thanks to Bob, the sysop there:

TI BASIC ERROR CODES PERTAINING TO THE DISK SYSTEM

#:	First Digit	Second Digit
0:	OPEN	Can't find specified disk drive
1:	CLOSE	Disk or Program is write protected
2:	INPUT	Bad Open Attribute
3:	PRINT	Illegal Operation
4:	RESTORE	Disk Full or too many files open
5:	OLD	Attempt to read past EOF
6:	SAVE	Device Error
7:	DELETE	File Error
8:	NIL	
9:	EOF	

EXTENDED BASIC ERROR CODES

10:	Humeric Overflow
14:	Syntax Error
16:	Illegal After Subroutine
19:	Name Too Long
20:	Unrecognized Character
24:	\$/# Mismatch
28:	Improperly Used Name
36:	Image Error
39:	Memory Full
40:	Stack Overflow
43:	NEXT Without FOR
44:	FOR-NEXT Nesting
47:	Must Be In Subroutine
48:	Recursive Subroutine CALL
49:	Missing SUBEND
51:	RETURN without GOSUB
54:	String Truncated
56:	Speech \$ Too Long
57:	Bad Subscript
60:	Line Not Found
61:	Bad Line #
62:	Line Too Long
67:	Can't CONTINUE
69:	Command Illegal In Program
70:	Only Legal In Program
74:	Bad Argument
78:	No Program Present
79:	Bad Value
80:	Nil
81:	Incorrect Argument List
82:	Nil
83:	Input Error
84:	Data Error
97:	Protection Violation
100:	File Error
138:	I/O Error
135:	Subroutine Not Found

I/O ERRORS

#:	First Digit	Second Digit
0:	OPEN	Device Not Found
1:	CLOSE	Write Protected
2:	INPUT	Bad Open Attribute
3:	PRINT	Invalid I/O Command
4:	RESTORE	Out of Space
5:	OLD	End Of File
6:	SAVE	Device Error
7:	DELETE	File/Data Mismatch

DISK MANAGER ERROR CODES

#:	First Digit	Second Digit
1:	OTHER	Rec not found
2:	SEEK/STEP	Cyclic Redundancy
3:	INPUT	Lost Data
4:	PRINT	Write Protect
5:	Nil	Write Fault
6:	Nil	No Disk Drive
7:	Nil	Invalid Input
8:	Nil	
9:	Special error code for Comprehensive tests.	

EDITOR/ASSEMBLER ERROR CODES

X/B ERROR EQUATES

ERRNO	>0200	2	Humeric Overflow
ERRSYN	>0300	3	Syntax Error
ERRIBS	>0400	4	Illegal after Subprgm
ERRNQS	>0500	5	Unmatched Quotes
ERRNTL	>0600	6	Name too long
ERRSNN	>0700	7	\$/# Mismatch
ORROBE	>0800	8	Option Base Error
ERRNUV	>0900	9	Improperly Used Name
ERRIM	>0A00	10	Image Error
ERRMEM	>0B00	11	Memory Full
ERRSO	>0C00	12	Stack Overflow
ERRNVF	>0D00	13	NEXT without FOR
ERRSNH	>0E00	14	FOR-NEXT Nesting
ERRSNS	>0F00	15	Must be In Subprogram
ERRRSC	>1000	16	Recursive Subprogram
ERRMS	>1100	17	Missing SUBEND
ERRVG	>1200	18	RETURN without GOSUB
ERRST	>1300	19	String Truncated
VERRBS	>1400	20	Bad Subscript
ERRSSL	>1500	21	Speech \$ Too Long
ERRBLF	>1600	22	Line Not Found
ERRBLN	>1700	23	Bad Line Number
ERRLT	>1800	24	Line too Long
ERRCL	>1900	25	Can't CONTINUE
ERRCP	>1A00	26	Illegal in Program
ERROLP	>1B00	27	Only Legal In Program
ERRBA	>1C00	28	Bad Argument
ERRNPP	>1D00	29	No Program Present
ERRBV	>1E00	30	Bad Value
ERRIAL	>1F00	31	Incorrect ArgumentList
ERRINP	>2000	32	Input Error
ERRDAT	>2100	33	Data Error
ERRFE	>2200	34	File Error
ERRIO	>2400	36	I/O Error
ERRSFF	>2500	37	Subprogram Not Found
ERRPV	>2700	39	Protection Violation
ERRINV	>2800	40	Unrecognized Character
WRNNO	>2900	41	Humeric Overflow
WRNST	>2A00	42	String Truncated
WRNNPP	>2B00	43	No Program Present
WRNINP	>2C00	44	Input Error
WRNIO	>2D00	45	I/O Error

TI-WRITER ERROR CODES

0:	Indicates Disk Controller not on; or that Diskette is not initialized
6:	No Disk In Drive; or disk is upside down; or Drive is Not on.
7:	No Disk In Drive
00:	Illegal use of LoadF, PrintF, or an error in using those commands
02:	No file on Diskette with Filename as Used
04:	Diskette is Full
06:	PrintF Command in progress was interrupted, or: Disk Door Was Opened while red light was on
07:	Invalid Filename (I.E., Name too long or using invalid characters)
15:	Invalid Disk Drive Number, or Device

LOADER ERROR CODES

#: First Digit Second Digit

0:	OPEN	Device Not Found
1:	CLOSE	Write Protected
2:	INPUT	Bad Open Attribute
3:	PRINT	Invalid I/O Command
4:	RESTORE	Out of Space
5:	OLD	End Of File
6:	SAVE	Device Error
7:	DELETE	File/Data Mismatch
8:		Memory Overflow
9:		Not Used
10:		Illegal Tag
11:		Checksum Error
12:		Unresolved Reference

**NOTES ON LASER PRINTING
WITH THE TI-99/4A
BY LARRY FAIRBANKS
(REPRINTED FROM THE SPIRIT OF 99)**

ONE OF THE BEST THINGS ABOUT THE TI-99 COMPUTER IS THAT IT IS COMPATIBLE WITH MOST COMMONLY USED PRINTERS, INCLUDING THE REVOLUTIONARY LASER PRINTER. MOST OF THESE PRINTERS USE THE PARALLEL PORT THAT IS ALSO USED FOR DOT MATRIX PRINTERS, AND FUNCTION IN MUCH THE SAME WAY IN TEXT MODE, USING THE SAME SIGNAL FOR PRODUCING A LETTER "A", THAT THE TI-4A IMPACT OR EPSON FX USE. GRAPHICS WILL REQUIRE THE USE OF PRINTER DRIVERS DESIGNED FOR RASTER GRAPHIC. FORTUNATELY, MOST PRINTING IS OF TEXT, SO TAKING ADVANTAGE OF THE LASER PRINTER'S 300 DOT PER INCH RESOLUTION AND TRUE LETTER QUALITY IS USUALLY VERY STRAIGHT FORWARD. JUST PLUG THE PARALLEL PRINTER CABLE FROM THE RS232 CARD INTO THE LASER PRINTER BEFORE YOU TURN IT ON; THEN PRINT TO DEVICE "PIO.LP". MOST LASER PRINTERS ALSO HAVE AN RS232 PORT THAT OPERATES AT 9600 BPS.

THE LASER PRINTER IS ALSO FASTER AND QUIETER THAN THE DOT MATRIX. THE FIRST PAGE COMES OUT IN ABOUT 30 SECONDS, AND SUBSEQUENT PAGES ARE PRINTED AT FROM FOUR TO TEN PAGES PER MINUTE, DEPENDING ON THE MODEL. IT MAKES ABOUT AS MUCH NOISE AS A XEROX, BECAUSE IT IS BASED ON A COPIER ENGINE. SPECIAL PAPER IS NOT REQUIRED, BUT THERE ARE SOME LIMITATIONS ON THE SIZE AND WEIGHT, SO CONSULT YOUR MANUAL FOR SPECIFICS.

PAPER SIZE IS LIMITED IN ONE DIMENSION BY THE WIDTH OF THE FUSER DRUM, WHICH ACTUALLY PUTS PRINT TO PAPER. IN ALL BUT EXPENSIVE MODELS, IT IS 8 AND 1/2 INCHES WIDE. PAPER SIZES ARE 8 AND 1/2 BY 11 OR 14 INCHES, BUT MOST UNITS ALSO HAVE A MANUAL FEED CAPABILITY FOR LONG OR ODD SIZED PAPER AND ENVELOPES. COLORED OR TEXTURED PAPER CAN ALSO BE USED FOR SPECIAL PROJECTS SUCH AS ANNOUNCEMENTS OR RESUMES. ONE CAN EVEN DOUBLE PRINT, SEND THE SAME PAPER THROUGH TWICE, OR PRINT ON PREVIOUSLY PRINTED PAPER.

A WIDE VARIETY OF FONTS ARE AVAILABLE ON IBM COMPATIBLE DISKETTES THAT CAN BE DOWNLOADED INTO LASER PRINTERS WITH AT LEAST 512K OF MEMORY. IN ADDITION, ALL LASER PRINTERS ARE NOW SOLD WITH A VARIETY OF FONTS OF DIFFERENT CHARACTER SETS, SIZES AND OFTEN TYPE FACES BUILT RIGHT INTO THE PRINTER. ADDITIONAL FONTS ARE AVAILABLE ON CARTRIDGES WHICH DO NOT REQUIRE DOWNLOADING.

SOME DIFFERENCES ARE VERY APPARENT. BOLD IS A DIFFERENT FONT, RATHER THAN A DOUBLE STRIKE, SO IT OFTEN HAS THICKER LETTERS IN ADDITION TO BEING MUCH DARKER. COMPRESSED PRINT IS A DIFFERENT FONT, AS IN DOT MATRIX, BUT SINCE MANY TYPE SIZES ARE AVAILABLE, CHR\$(15) IS NOT SUFFICIENT TO MAKE THE CHANGE. A CHR\$(12), ON THE OTHER HAND, WILL STILL GIVE YOU A FORM FEED.

A LARGE NUMBER OF ESCAPE SEQUENCES ARE AVAILABLE TO CONTROL FONT USAGE, LINES PER PAGE, UNDERLINING, MARGINS, AND POSITIONING. THEY CAN ALSO CONTROL ORIENTATION SO YOU CAN PRINT SIDeways. THE ESCAPE SEQUENCE GETS ITS NAME FROM THE ESCAPE CHARACTER, CHR\$(27), WITH WHICH IT STARTS, AND IT ENDS WITH A CAPITAL LETTER.

MANY LASER PRINTER SEQUENCES ARE LONG AND CONTAIN UPPER AND LOWER CASE LETTERS, NUMBERS AND SYMBOLS. SPELLING AND SYNTAX ARE CRITICAL.

THERE ARE TWO DIFFERENT ESCAPE SEQUENCE FORMATS FOR SELECTING DOWNLOADED FONTS; THE FONT DESCRIPTION SEQUENCE, OR LONG FORM, AND THE FONT ID SEQUENCE OR SHORT FORM. TO USE THE SHORT FORM, YOU MUST SET THE ID WHEN DOWNLOADING.

ESCAPE SEQUENCES CAN BE SENT TO THE PRINTER IN BASICALLY TWO WAYS. IF YOU ARE USING THE FORMATTER, CREATE A TRANSLITERAL WITH A PUNCTUATION MARK LIKE AN E SIGN WHICH IS ASCII 61. AFTER USING IT, YOU WILL WISH TO RESET IT SINCE IT MAY BE USED IN THE TEXT. REMEMBER, DO NOT USE ANY REAL CHARACTERS IN YOUR TRANSLITERAL DEFINITION, JUST ASCII DEFINITION NUMBERS. EVEN THE NUMBER 8 FOR 8 LINES PER PAGE MUST BE ENTERED AS A 55 IN THE TRANSLITERAL.

THE OTHER WAY IS TO IMBED THE ESCAPE SEQUENCE IN YOUR TEXT. THIS WORKS FOR A STRAIGHT PRINTS-OUT BUT NOT WITH THE FORMATTER. ON THE OTHER HAND, THE TRANSLITERAL WON'T WORK WITH A STRAIGHT PRINT. IT IS GOOD FOR SMALL PROJECTS THAT DO NOT REQUIRE FORMATTER EXCLUSIVE FUNCTIONS SUCH AS FILL AND ADJUST. THE ADVANTAGE IS THAT YOU DO NOT NEED TO LOOK UP ASCII NUMBERS AND KEEP GOING TO THE FORMATTER TO PRINT EACH TEST COPY. TO CREATE THE ESCAPE CHARACTER AT THE START OF THE SEQUENCE, PRESS CTRL+U, FCTN+R, AND CTRL+U AGAIN TO TURN THE SPECIAL CHARACTER MODE OFF. YOU WILL SEE A LITTLE 16 CHARACTER, THEN PROCEED TO TYPE IN THE REST OF THE SEQUENCE WITH ACTUAL CHARACTERS, NOT ASCII NUMBERS.

USING THE PRINTER IS OFTEN MUCH EASIER THAN YOU MIGHT THINK. I DUMPED THE "GENERAL NOTES" DOCUMENTATION FILE FROM MY FUNNELWEB 4.30 DISKETTE TO THE PRINTER WITHOUT MODIFICATION AND IT COULD BE SENT TO THE PRINTER "RS IS". IT IS EVEN EASIER WITH SOFTWARE THAT IS DESIGNED TO SUPPORT IT.

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IF YOU BELONG TO THE SALT LAKE USER GROUP
AND IF YOU HAVEN'T GOT YOUR FREE DISK HOLDER
PLEASE COME TO THE NEXT MEETING ON MAY 18
PICK UP YOUR DISK HOLDER. IF YOU DON'T
THE REMAINING WILL BE GAVE AWAY FOR DOOR
PRIZES.

SO COME ON OUT TO TH MEETING AND PICK
YOUR FREE GIFT.

AND HAVE SOME FUN WIT THE REST OF US.

1991

January

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May

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September

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April

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August

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December

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May

1991

Sun	Mon	Tue	Wed	Thu	Fri	Sat
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Mother's Day						
19	20	21	22	23	24	25
26	27	28	29	30	31	
Memorial Day						

TI SLAVES AND OGDEN TI USERS GROUPS OFFICERS

TI SLAVES

PRESIDENT --- BOB BEAUDOIN 262-6045
VICE PRES --- WARREN YOUNG 278-1052
SEC/TREAS --- JOE MASARONE 266-3694
LIBRARIAN --- RENN CRUMP 266-7144
ASST. LIB. --- JIM FISHER 571-0804
NEWSLETTER EDITOR FOR BOTH GROUPS ---

OGDEN TI USERS GROUP

DAVE MISCHLER 782-1004
HAROLD BINGHAM 294-6282
RICHARD SCOTT 776-2551
ED ISLER 295-9156
MEL BRAGG 293-9609
MEL BRAGG 293-9609

MAY 1991 NEWSLETTER

TI SLAVES:

OUR NEXT MEETING IS MAY 18, 1991 AT 9:00 AM. WE MEET IN THE DISABLED AMERICAN VETERANS HALL AT 278 E. 600 S. PLEASE BE THERE PROMPTLY.

OGDEN TI USERS GROUP

OUR NEXT MEETING IS MAY 4TH AT 9:00 AM. AND MAY 21 AT 7:30 PM. WE MEET AT THE OGDEN MUNICIPAL AIRPORT IN THE FIRST BUILDING JUST EAST OF THE NEW TOWER.

SLAVES & OTIUG
1396 LINCOLN APT B
OGDEN, UTAH 84404

