

SLAVES AND OTIUG NEWSLETTER



DECEMBER 1991

I've been wanting to do a series of hardware modification articles for a long time, so, here goes.

I have made a number of changes to both the PE Box and console for Jacks Basement (aka Lehigh 99ers Bulletin board 215-8210469) and to my other systems. The first modification is going to be to the PE Box power supply to reduce the heat and 140V voltage problems.

The board has been running 24 hours a day for almost a year now with NO down time because of hardware. Yes, we have had our software problems but it's been over 6 months without any of those either.

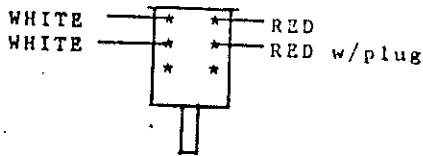
The PE Box is built like a boat anchor and can put out over 150 watts with a few changes. The first and probably most important change can be done without installing any new parts. Just a few wire changes will cool it down and drop those voltages.

First the warning. The Lehigh group or I can't take any responsibility for goofups. You all know what I mean. We won't be liable!

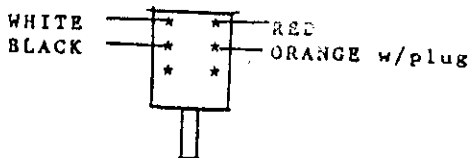
If you haven't taken apart a PE Box yet I'm including a copy of R.J. Biebers "How To" in this months newsletter.

SWITCH

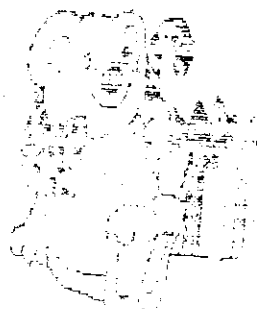
BEFORE



AFTER

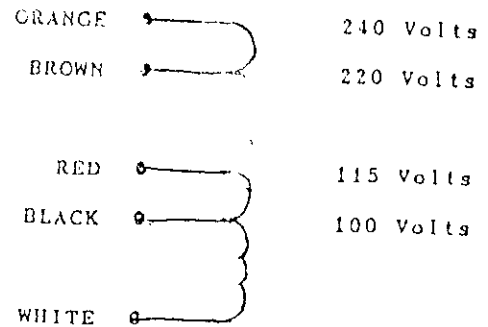


Once you removed the cover look at the power switch in the front right corner. There should be four wires connected to it, two white on top and two red on the bottom. The front wires should be heavier than the back ones, and the front red wire should have a small plug connector about an inch from the switch. To the right of the switch should be a terminal connector with three wires on it, a black, brown and red. Looking at figure 1 the transformer schematic, you will see normally the white and red wires connect across the 115V



windings. We are going to change this to the black and orange wires or 140V windings. Looking at figure 1 the

FIG 1



orange wire is at the other end of the transfer and the black wire is the 100V tap but across them is equal to a 140 volt tap, $240 - 100 = 140$.

The terminal block with the three wires to the right of the switch does not connect to anything. It is only there to hold the other transformer wires used for overseas voltages. (240V)

Remove the red wire at the plug coming from the switch. Now remove the orange wire from the terminal block and plug it into the short red wire going to the switch. The other heavy red wire can be put on the terminal block. The heavy white wire will have to be unsoldered from the switch. It may be covered with a length of shrink wrap tubing and is easily cut away with a razor knife. Remove the black wire from the terminal block and cut off the plug. Solder the black wire onto the switch where you removed the white wire and solder the white wire onto the terminal block to keep it from shorting out against anything.

This change has dropped the unregulated voltages going to the cards in the

PE Box approximately 20%.

- +5 Volt line from 14.4V to 11.7V
- +12 Volt line from 25.3V to 20.6V
- 12 Volt line from 25.2V to 20.5V

PAN NOTE

The fan in the PE Box is taped into the transformer white and red wires so it can be used no matter what voltage the PE Box is running from. It may run slow for the first minute or so when you turn on the PE Box. If it does not come up to speed you will have to wire the fan directly to the switch. Or better yet remove that old wind machine and install a quiet muffin fan.

I will comment on fan replacement in upcoming months. Also upgrading that PE Box so it will run two floppys and a hard drive and taping power for the console from the PE Box. Yes I run our BBS, console, harddrive, two floppys all off the PE Box. 24hrs, 7 days a week, at about the same cost as a 75 watt light bulb.

Jack Zawediuk
 Editor (H.H.H.)

I have made a number of changes to both the PE Box and console for Jacks Basement (The Lehigh 99ers bulletin board 215-8210469) and to my other systems. The second modification is going to be to the PE Box power supply to increase the current levels to run a hard drive and two floppys or up to four floppys. Also you can power your console right from the PE Box power supply.

The basic idea came from an article in Micropendium on page 43 of the May 1990 issue. Harold Hoyt and Gene Breer beefed up the power supply by adding a second 12 volt regulator in parallel on top of the first one. I'm including that article in this newsletter. My modification also adds a second 5 volt regulator on top of the original with a heat sink.

First the warning. The Lehigh group or I can't take any responsibility for goofups. You all know what I mean. We won't be liable!

First off, this modification requires removal of the 1N4003 diodes and replacing them with a bridge rectifier. If you don't have experience with removing components from a circuit board get help!

At this point you have removed the PE Box cover and should remove the power supply circuit board. There are three plugs and two screws holding the board and its black plastic mounting bracket to the bottom of the PE Box, remove them. Next remove the board from the plastic bracket. Looking at the board you will see four large capacitors, between the capacitors is the 12 volt regulator (See Fig 1). As in the article, I added another 12 volt regulator but added extra nuts to the underside of the regulator and some heatsink compound between the two. (See Fig 2) This gave better control over the dissipating of the 7812s and let me tighten the nuts. Now run a short wire from each terminal of the

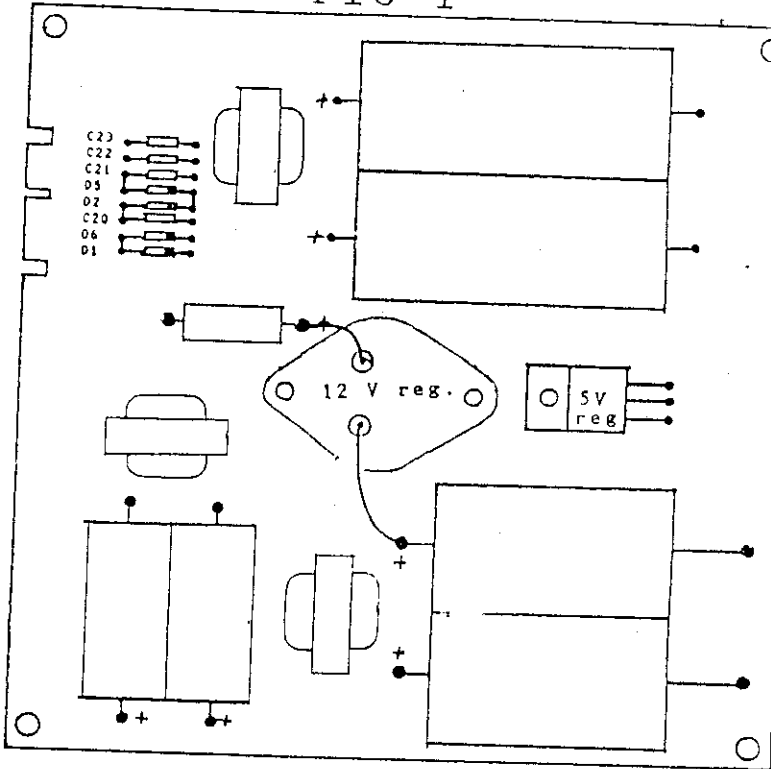
You also need to upgrade the four diodes feeding the regulator. Remove D1, D6, D2, and D5 (fig 1) and replace them with an 8 Amp. bridge rectifier. You may have to drill out the holes to a slightly larger size. Refer to figures 3 and 4 for placement.

Hope your'e following me so far. Next month I'll work on tapping the PE Box powersupply to run

the console and some tricks on fan replacement. If you have any questions contact me through the group address (as it is my house) or call our BBS, 215-821-1043 (also at my house). The bulletin board is open to all. 3,12,2400 baud, 24 hrs. CE2

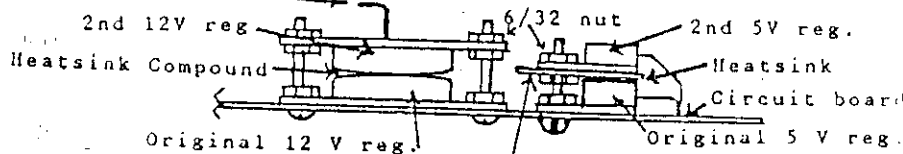
Jack Zawediuk
Editor (H.H.H.)

NOT ALL COMPONENTS SHOWN
FIG 1



Carefully bend regulator terminal ends to solder on wires

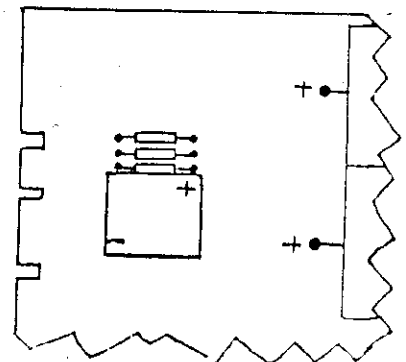
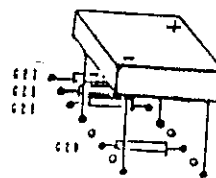
FIG 2



Heat sink ends (not shown) bent up

FIG 3

FIG 4



second regulator to the circuit board as in Fig 1. Be careful of the orientation of the second regulator and the wire placement. (Fig 1) The second regulator should have its terminals closer to the left screw than the right. Check your regulator, the input is the bottom terminal going to the large 3300uf capacitor in the bottom right of the circuit board. The output is the top terminal going to the smaller 47uf capacitor just upper left of the regulator.

Also by installing a longer screw through the 7805 (5 volt regulator), adding a heatsink and a second 5 volt regulator you can double the 5 volt output. Just bend the regulator terminals down against the originals and solder in place. Figure 2 doesn't show it but the heatsink ends are bent up on both sides of the regulator.

KEYBOARD ASCII CODES

By Earl Raquse

Over the years of reading exchange newsletters, I have seen this chart many times, usually without an author named, always with at least one error. I have probably done no better, but check as I might. I can't find an error, so you will have to make your own. Also, I have included a short XB program ASCII CODES for you to check it out. Be sure to comment out line 110 until you are CERTAIN it is working, and always SAVE before running.

TI 99/4A KEYBOARD

1 2 3 4 5 6 7 8
 123456789012345678901234567890123456789012345678901234567890

49	50	51	52	53	54	55	56	57	48	61	SHIFT UP
33	64	35	36	37	94	38	42	40	41	43	SHIFT DOWN
1	2	3	4	5	6	7	8	9	0	=	KEY
3	4	7	2	14	12	1	6	15	188	5	FCTN DOWN
177	178	179	180	181	182	183	158	159	176	157	CTRL DOWN

113	119	101	114	116	121	117	105	111	112	47	
81	87	69	82	84	89	85	73	79	80	45	
Q	W	E	R	T	Y	U	I	O	P	/	
197	126	11	91	93	198	95	63	39	34	186	
145	151	133	146	148	153	149	137	143	144	187	

97	115	100	102	103	104	106	107	108	59	13	
65	83	68	70	71	72	74	75	76	58	13	
A	S	D	F	G	H	J	K	L	:	ENTER	
124	8	9	123	125	101	192	193	194	189	13	
129	147	132	134	135	136	138	139	140	156	13	

	122	120	99	118	98	110	109	44	46		
	90	88	67	86	66	78	77	60	62		
SHIFT	Z	X	C	V	B	N	M	.	.		SHIFT
	92	10	96	127	190	196	195	184	185		
	154	152	131	150	130	142	141	128	155		

					32						
					32						
CTRL					SPACE						FCTN
					32						
					32						



```

100 ! SAVE DSK1.ASCII CODES
110 ON BREAK NEXT :: CALL LO
    AD(-31806,16)
120 DISPLAY AT(10,1)ERASE AL
L:"      Press Any Key
      ok to use
      SHIFT, CTRL or FCTN also"
    
```

```

130 CALL KEY(5,K,S):: IF S<1
    THEN 130
140 DISPLAY AT(20,7):"CHAR "
    :CHR$(K):" ASCII":K
150 DISPLAY AT(23,10):"PRESS
    ANY KEY" :: CALL KEY(5,K,S):
    :IF S<1 THEN 150 ::GO TO 120
    
```



 * USING THE TI-WRITER MAIL MERGE by Chick De Marti *
 * Los Angeles 99ers Users Group, from Topics 9/91 *

WHAT IS A MAIL MERGE?

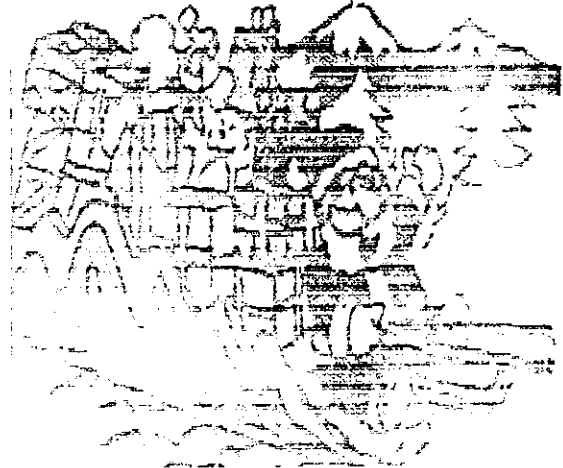
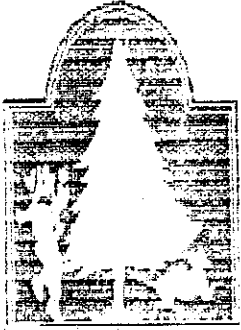
A Mail Merge is a convenient way to mail a form letter to many people without manually typing in the names, addresses, etc. This is extremely useful when various forms of communication must be sent to the same group of people monthly, quarterly, etc. So the obvious thing then would be to create the mailing list. Use this.. Example:

1 Mr
 2 Tom
 3 Jones
 4 2341 Any Street
 5 Somewhere, CA 91123
 6 Jones family
 *

(Press <ENTER> after each line. Yes! The numbers 1, 2, 3,, 4, 5, 6 must be entered. Notice the '*' asterisk separating each group of members, TI-Writer recognizes it as a separator.)

1 Ms
 2 Jane
 3 Smuthers
 4 7777 Lucky Lane
 5 Sameplays, CA 91119
 6 Smuthers family
 *

1 Mrs
 2 Eunes
 3 Somuch
 4 2468 'Preciate Ct.
 5 Fairytale, CA 91121
 6 Somuch family
 *



Next, let's create a form-letter. This is the one I created for our August meeting (which Fred Moore put on for me when I realized I was playing (I'm a musician) on that night.) A typical heading would look similar to this:

.AD;LM 8;RM 72 <enter>
 .IN +32 " (The +32 will print the fol-
 Chick De Marti " lowing lines near the center
 18028 Falda Ave. " of the page.)
 Torrance, CA 90504 "
 <enter>

August 26, 1991
 .IN +0 <enter> This cancels the .IN on line 2
 <enter>

1 *2* *3* <enter> = Title, F-name, L-name
 4 " = Street address
 5 " = City, State, Zip code

<enter>
 Dear *2*, <enter> = F-name
 <enter>



(Now you would type the body of the letter.)

Example:

This year we are going to have many interesting demonstrations and surprise guests. We expect some of the leading programmers in the TI community to be displaying the wares, as well as their expertise. There will be many bargains available in software as well as some 'steals' in hardware.

It would be my pleasure to greet the *6* family at the door personally. So do come to the meetings and enjoy yourself as well as learn many interesting things.

<enter>

.IN +32

Yours truly,
Chick La Marti

Save the letter as DSK2.FORMLET/1

This is about as simple as it can be. By doing the mailing list in the TI-Writer editor, you can make changes or corrections, as well as additions with little or no trouble.

NOTE: When you are through typing your form letter, before leaving the editor, make a quick copy of it using the PF command (Print File). The resulting copy will include all 'dot' commands and will allow you to check the finished copy with your original notes.



To make a 'Print File' copy, while still in the editor:

press Fctn 9 to get to the command line,

type PF <enter>

PIO (No! LF (line feed) not needed)

(You may be using BA-... , etc. In any case, just press <enter> and a copy of your formletter will be printed.

PRINTING THE LETTERS

This is even easier. Get into the Formatter and follow the prompts:

```

Program      DSK2.FORMLET/1   <enter>
Printer      PIO.LF           <enter>
Use mail list?      Y       <enter>
Page(s)/All      A       <enter>
Pause after each page N   <enter>
Mail list name  DSK2.MYFILE/1 <enter>

```

That's all there is to it. When the letters are printed, TI-Writer will replace *1* *2* *3* with Mr Tom Jones and the *4* with his address. *5* will be replaced by the city, state, etc. and at *6* will insert "Jones family". Neat huh?

Now TI-Writer has another feature you might like to try. It is a manual insert option. Using this option you could insert personal information anywhere within the letter. This could be used by a business for billing purposes, or for a club to make it's members aware of changes, awards, etc. Here's a quick 'how to'.

Let's make a minor change to our mailing list. Load MYFILE/1 into the editor and delete the lines sixes (Jones family, etc.). Place the cursor on the '6' and press Fctn-3. When finished:

Save as DSK2.MYFILE/2

Now load your FORMLET/1

Normally, this would probably be a different heading, but for the sake of expediency, let's use what we have. Go to the line with Dear *2*, and change it to Dear *1* *3* (Mr. Jones). Now to the letter itself. Type in:

Thank you for your recent payment. Your balance is *6*. If you have any questions, please give my office a call.

.IN +32
Yours truly,
Ida Dugood
SMALL LOAN CO.

Again using the Fctn-3 key, delete the rest of the letter and save it as: DSK2.FORMLET/2
(Did you make a copy using PF?)

Ti-Writer matches all numbers within the asterisks (*1* *2*, etc.) with the respective lines in your mailing list. If it does not find the corresponding number, it halts the printing and asks for your input. Now print your letters answering the prompts as you did for FORMLET/1. The printer will stop and at the message "Enter input:" Enter a dollar sign and any amount you want ... Example: \$1150.90. When you read the letter, the second sentence will now read:

"Your balance is \$1150.90"

There doesn't seem to be any limit to the number of inputs you may have. With that in mind, another opportunity to use the Mail Merge might be at Golf tournaments. Still using the mailing list MYFILE/2, type in this form-letter:

Dear *2*,
<enter>

Thank you for participating in the Junior/Senior Golf Tourney. Your official handicapped score was *6* earning you *7* as your portion of the 'Winner's Booty'. Looking forward to seeing you again next year.

.IN +32
Bobby Sox, Treas.
Good Guys Golf Gang

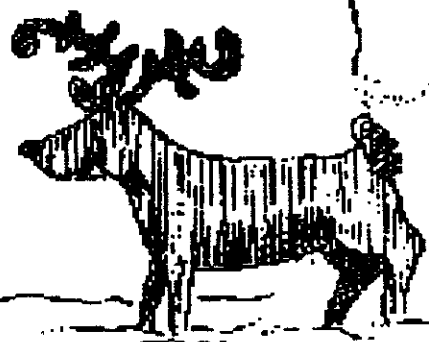
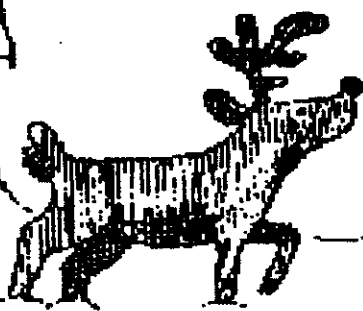
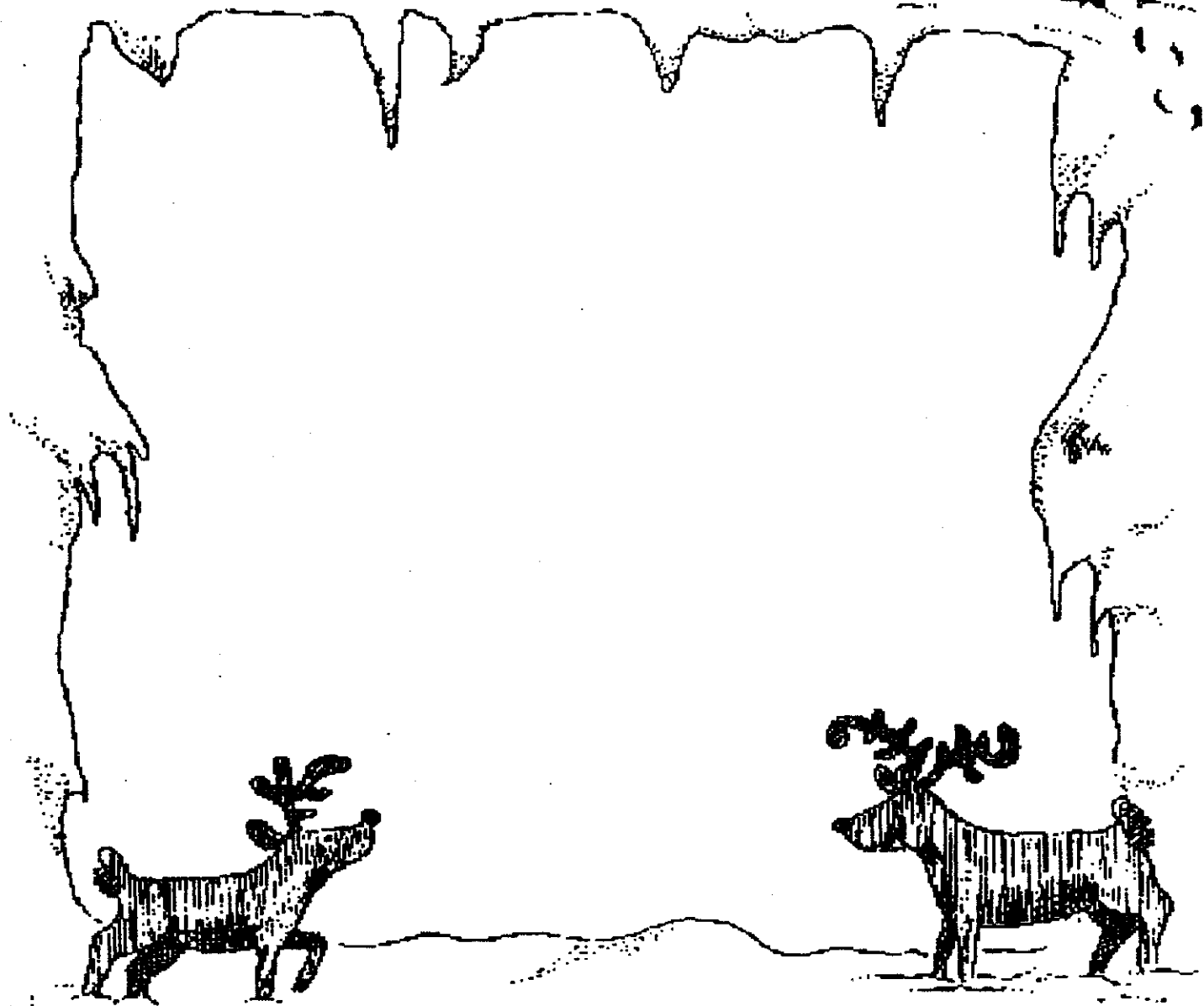
The inputs in the above example are obvious, and as you can see, the occasions to use a Mail Mmerge are endless. So try it out for kicks... I did, and I learned how to Mail Merge.

-*- Chick De Marti -*-

WRITE AS MANY WORDS AS YOU
CAN USING THE LETTERS FROM THE
WORDS...



"NORTH POLE"



TI FEST WEST 1992

HOSTED BY:

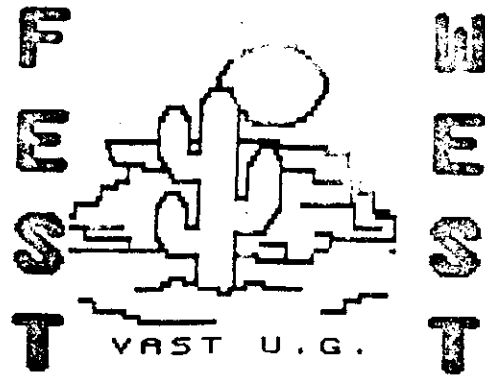
VAST - Valley of the Sun TI Computer User Group
c/o FEST WEST '92 COMMITTEE
4316 W. Altadena, Glendale, AZ 85304

DATE/TIME.

Saturday, February 15, 1992 - 9 a.m. to 5 p.m.
Sunday, February 16, 1992 - 9 a.m. to 3 p.m.

LOCATION.

Days Inn - Phoenix/Camelback
502 W. Camelback Road
Phoenix, AZ 85013
(602) 264-2290 or 1-800-688-2021



FEST WEST '92, THE BEST YOU CAN GET!! FEST WEST has been one of the major faires for the TI-99/4A and the Myarc GENEVE 9640. We think this year's FEST will follow the successes in quality and size of the previous ones hosted by the Los Angeles User Group, Southern Nevada User Group, Southern California Computer Group, Southwest Ninety-Niners User Group, and last year, the User Group of Orange County in association with the Pomona Valley User Group. The FEST will be held in Phoenix, the capitol of Arizona. Many museums and the revitalized Downtown Phoenix are only a short bus ride away. The Phoenix Zoo, 123 acres of mammals, reptiles and birds, and the Desert Botanical Gardens at Papago Park are a little farther away, but worth the visit.

The large ballroom at Days Inn (the Arizona and Sedona Rooms) will be used for exhibit space. The Speaker's Presentations will be held in The Cactus Room. User Groups and vendors are invited to display and sell their wares. Many electrical outlets will be provided. Each table is only \$20.00 and each table reservation includes 2 admission tickets that are good for both days.

The Guest Room rate of \$54.00 is very good at this time of year in Phoenix. The \$54.00 is for 1 to 4 people so bring the family and the swimming suits for a long weekend vacation. Don't forget the warm weather clothing for the evening.

These rates are for FEST WEST and available only at the phone numbers indicated above. The FEST WEST '92 Committee has guaranteed a number of rooms in a block. This will be near the Hospitality Suite. To enjoy all the TI'ers, make reservations early and indicate it is for FEST WEST.

As the FEST draws, the time to get your reservations in is NOW. Booths will be assigned on a first reserved, first assigned basis. Making reservations early will not only give you one of the best locations in the room, but will also give the Committee additional advertising information. There is nothing like FREE advertising and people DO want to know who will be here.

FEST WEST has always been successful at providing a good place for TI/MYARC Vendors to come. Attendance has always been good and sales high. With the FEST in Phoenix, we expect no less. Some tables have already been reserved, but many are still available.

Something new for FEST WEST '92 will be a "Vendor's Forum," an open meeting for Software/Hardware developers to put their ideas on the table for discussion. This meeting will be on Saturday evening and conducted by Don O'Neil. We expect *Good Things* for the TI and Geneve Computers.

There will be door prizes and a raffle. Raffle tickets cost \$1.00 or 11 for \$10.00. The grand prize will be a Star NX1020 Color Printer. Now someone will be able to make those greeting cards with seven colors! Other prizes will be available and the FEST WEST '92 Committee is still looking for additional prizes. It would be greatly appreciated if you have something that can be donated for this purpose.

COME, TI/Myarc Vendors, and take advantage of this Western Region gathering to present and sell your wares to the TI community "that just keeps going."

TI SLAVES AND OGDEN TI USERS GROUPS OFFICERS

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NEWSLETTER EDITOR FOR BOTH GROUPS	---	---MEL BRAGG	393-9605

DECEMBER 1991 NEWSLETTER

TI SLAVES

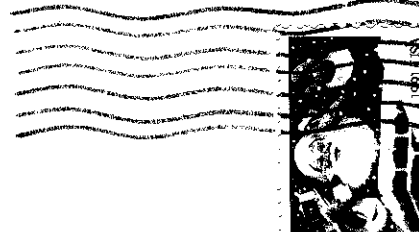
OUR NEXT MEETING IS DECEMBER 21 1991 AT 9:00 am WE MEET IN THE DISABLED AMERICAN VETERANS HALL AT 273 E. 800 S. PLEASE BE THERE PROMPTLY.!!
MEL BRAGG WILL GIVE A DEMO ON PAGE PRO EFFECTS...
COME AND HAVE FUN.

OGDEN TI USERS GROUP

OUR NEXT MEETING IS DECEMBER 7th AT 9:00 am and DECEMBER 17th.
WE MEET AT THE OGDEN MUNICIPAL AIRPORT IN THE FIRST BUILDING JUST EAST OF THE NEW TOWER.

THE OGDEN TI USERS GROUP HAS FINISHED A FUND RAISING PROJECT BY MEL BRAGG AND DAVID MISCHLER..IS A 1992 CALENDAR..DONE IN PAGE PRO 99..COST IS \$4.00 EACH..SO PICK ONE UP AT THE NEXT MEETING.....THEY LOOK TERRIFICK.....I CAN BRAG IF I WANT

Slaves & Otiug
1396 Lincoln APT B
Ogden, Utah 84404



Merry
Christmas