

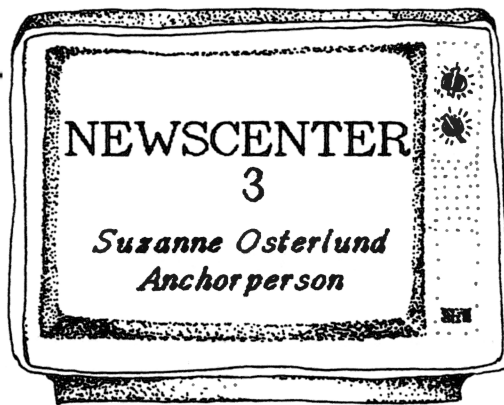
T MUG

T/MAKER USER'S GROUP NEWSLETTER
VOLUME 2, NUMBER 5, SEPTEMBER/OCTOBER 1983

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T/Maker Company has settled into its new office after the big summer move. The office now has a completed set of furniture, three functioning computers, and a staff available from 7:30AM to 5:30PM, Monday through Friday.

NEWS AND REVIEWS

PMC Meetings

T/Maker staff has attended two meetings of the PMC (Personal Micro Computers Inc.) users group. This company produces the PMC MicroMate, a compact and powerful computer. With each package of the MicroMate that PMC ships, a copy of T/Maker software is included. The meetings of July 28th and August 18th each drew about 75 T/Maker users. It was beneficial to have so many T/Maker users in one room—T/Maker personnel learned more about the needs of users, and users picked up some helpful tips to make their relationship with T/Maker even more productive. That's the local news. Now, a look at the world news—

Applause, Applause

T/Maker III has received several good reviews recently. Following are two brief but attractive excerpts from the August issues of *Microcomputing* and *Personal Computing*.

Frank J. Derfler, Jr. in his article in the August issue of *Microcomputing* shares his views about the advancements T/Maker has made from its second to third version:

...T/Maker II has been superseded by a revised program called (logically enough) T/Maker III. T/Maker III is more and better. It has more data-handling commands, added ability to create horizontal bar charts (on any screen or printer) and good printed documentation....If you told me I could have only one program for my microcomputer, I would choose T/Maker III. It's versatile and powerful and it suits the kinds of things I do. (pp.25, 26).

Paul Bonner in the article "When You'd Rather Switch Than Swap...", from the August issue of *Personal Computing* examines a number of integrated software packages. Here, he quotes Phillip Woelhoff, director of marketing at Westico.

Woelhoff says, "We've used T/Maker for three years for all our financial planning and projections. We operate both 8- and 16-bit machines using T/Maker. As far as we're concerned, it's the best integrated software for data and text manipulation around." He adds, "And we have access to any program on the market." (p.76).

NEW CONTRACTS

T/Maker Company has recently signed a 3-year nonexclusive distribution contract with Softsel Computer Products Inc., one of the most respected software distributors in the world.

Alfatron and Ausdata, two successful Australia-based distributors, and Lifeboat Associates in London have also chosen to distribute T/Maker III. The addresses of these new distributors appear on the final page of this newsletter.

UPCOMING SHOWS

T/Maker will be appearing at the National Software Show, October 19-21, 1983. Held at the San Francisco Trade Show Center, this trade exhibition is said to be the largest microcomputer software show ever displayed under one roof. For show information, call (415) 924-1194 or outside of California call (800) 732-2300. Drop by our booth to say hello.

CLOSING NOTES

Product Information

Free literature packages are available to any user who requests it. These packages include brochure, ad reprint, fact sheet, and (when available) reprints of product reviews. T/Maker Company believes that current users are the best form of publicity. If you know someone who would like more information about T/Maker III, please send us a note.

Win A Tea Mug

Contributions to T/MUG are always appreciated. If you have discovered a unique way to use T/Maker to simplify your personal or professional life, we want to hear about it. Authors of published articles will receive a handsome T/Maker tea mug. Please address contributions to:

T/MUG Articles
c/o T/Maker Company
2115 Landings Drive
Mountain View, CA 94043

Become A T/Maker Applications Programmer

T/MUG invites "T/Maker programmers" available to do applications programming for individuals or firms to list their services in this newsletter. (Naturally, T/Maker Company cannot guarantee the performance of listed programmers.)

Applications Programmers:

Gail Simpson/Ron Roizen, 2011 Francisco Street, Berkeley, CA 94709/(415) 549-0103.

Special Customization of T/Maker for NorthStar Computers and MS Dos Computers



NorthStar Advantage

The NorthStar Advantage has a somewhat unusual keyboard which can cause some problems with T/Maker. Like all keyboards, touching certain keys sends certain numbers to the operating program. These numbers range from 0 to 255. On most machines, numbers ranging from 0 to 31 and the number 127 are considered special non-printable characters. T/Maker always weeds out such numbers and will not let you put the corresponding character into your file because there is no way to show it on the screen. You can use such keys only for editing keystrokes.

On the NorthStar Advantage, numbers ranging from 128 to 159 are also special non-printable characters. T/Maker, not realizing this trait, will allow you to place such characters into your file. However, when T/Maker tries to put these characters back on the screen, the Advantage reacts by doing a variety of things such as clicking or going into graphics mode. The result is usually far from ideal.

One solution to this problem is to use a system input mask (see T/Modify Option 13) of 127. What this actually does is convert numbers in the range of 128 to 255 back to the range of 0 to 127. This solves the problem, but it also means that the Advantage's function keys no longer produce characters distinct from normal letters.

T/Maker however can be patched so that only characters in the range of 128 to 159 will be set back to the range of 0 to 31. This means that all keys on the keyboard can be used without confusing T/Maker.

To make the patch for T/Maker 3.02 for CP/M80 the file TMAKER.UTL must be changed. You will need to get a copy of the program DDT.COM (which should have come with your CP/M) onto the same disk to make the change. But first, you should use T/Modify to set the Console Input Technique (Option 7) to 1 (BDOS calls).

To make the patch (applies to version 3.02) you follow the sequence shown below. What you see underscored is what you should type; the rest is what the computer will respond.

```
A>ddt tmaker.utl
DDT VERSION 2.?
NEXT PC
0E00 0100
```

SPECIAL CUSTOMIZATIONS --*continued*

```
-s337
0337 05 42
0338 00 24
0339 C9 .
-s342
0342 2A cd
0343 01 05
0344 00 00
0345 01 fe
0346 03 a0
0347 00 d0
0348 09 eb
0349 22 7f
034A 4D c9
034B 24 .
-q0
```

A>save_13_tmaker.utl

MS Dos Version

To make the same patch to the MS Dos version of T/Maker(3.02 B) for the Advantage, first make sure with T/Modify that Operating System Calls are used as the Console Input Technique and also that the System Input Mask is set to 255.

Then use the MS Dos DEBUG program to make the following changes to the TMAKER.UTL file.

Hex_Offset	Current_Value	Changed_Value
195	0A	E9
196	C0	00
197	C3	0E
F98	00	3C
F99	00	A0
F9A	00	73
F9B	00	02
F9C	00	24
F9D	00	7F
F9E	00	0A
F9F	00	C0
FA0	00	C3

SPECIAL CUSTOMIZATIONS --continued



Computers Running Under MS Dos

To patch T/Maker 3.02 B for MS Dos (not PC Dos) so that the function keys on the machines like the TI Professional and other 16 bit machines can be used correctly, change the following in TMAKER.UTL (this patch is not needed on the NorthStar MS Dos version if you have done the previous patch). Note that the function keys transmit a null as the first character in a two character series (eg. key F1 would send out 0,60). T/Maker does not accept a null as a valid character unless this patch is made. Use DEBUG.COM to do the following:

```
A>DEBUG_TMAKER.UTL
```

```
>E198
```

```
E8.
```

```
B4
```

```
F4.
```

```
07
```

```
FF.
```

```
CD
```

```
0A.
```

```
21
```

```
C0.
```

```
C3
```

hit return after this last change

```
>W
```

```
>Q
```

it will say WRITING 1300 BYTES

```
A>
```

-- Peter Roizen & Robert Simon

-- ADVERTISEMENT

Numerical Data Analysis With T/Maker

Computers have streamlined numerical data analysis procedures since the beginning. They are able to do large numbers of calculations in a minimum of time. The problem remaining is making the data available to the analysis programs.

As a rule, data to be analyzed are first keyed into the program as X,Y pairs. The analysis software can then save the data in a disk file and perform the analysis functions. If the results of the analysis show that the data need to be edited, the frustrations begin. The corrected information has to be keyed in again. The next analysis may show that the range of data used should be limited for more accurate results. More frustration, more re-keying data. The difficulty stems from the limited or non-existent editing capabilities of the analysis software.

I have developed a technique to solve this data management problem. Data files for analysis can be created with T/Maker. With the aid of computer prompts, the user defines the data for analysis by column or row number or by literal identifier. Data files can be created with T/Maker for maximum human readability as the algorithm ignores non-numerical information in the files. Literal identifiers, labels and column headings can be used freely for thorough data documentation. With this procedure, the power of T/Maker is available to manage your data.

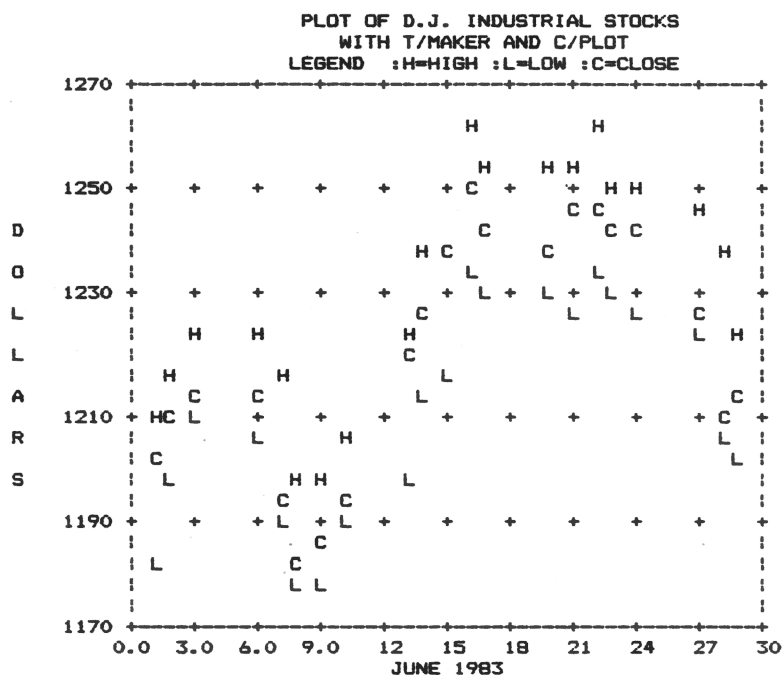
T/Maker was used to create the sample data file below. (The disk file includes all information from the top to the bottom dashed lines.)

Performance of the D. J. Industrial Stocks			
--JUNE '83--			
DAY	HIGH	LOW	CLOSE
1	1208	1184	1202
2	1218	1197	1210
3	1222	1208	1212
6	1222	1204	1212
7	1218	1192	1193
8	1199	1180	1184
9	1196	1178	1188
10	1204	1189	1195
13	1223	1199	1220
14	1237	1214	1226
15	1240	1217	1237
16	1260	1236	1248
17	1254	1232	1241
20	1252	1230	1239
21	1253	1228	1246
22	1259	1234	1245
23	1250	1231	1241
24	1250	1229	1241
27	1246	1222	1228
28	1237	1205	1209
29	1222	1201	1213
30	1228	1208	1221
NOTE: These are approximate quotes generated for demonstration purposes only.			

Numerical Data Analysis With T/Maker ---continued



The algorithm reads the data file and retains only the numerical data selected for plotting or analysis. A plot of the above data is shown on the following chart.



I have incorporated the algorithm into programs called C/Plot and Curve. Both programs are available to T/MUG members for \$50 on 8 inch disk. The price includes user manuals for both programs. The user manuals are available for \$15 for both C/Plot and Curve. California residents add 6% state sales tax.

George M. Anderson, Jr.
Personal Systems Enterprises
1313 Cottonwood Drive
Tracy, CA
95376

Converting Ranges of Values to Single Values

This article presents one method for converting ranges of values to single values. Say, for example, you wanted to score all values up to 10 as 1's, all values 11-20 as 2's, and all values 21 or greater as 3's. That is:

initial value		recoded value
-10	=>	1
11-20	=>	2
21+	=>	3

For the sake of explanation, think of this as a problem in "rewarding"--that is to say, we want to reward values over 20 with 3 points, reward values over 10 with 2 points, and even reward values of 10 or less with 1 point. Figure 1 reflects this "rewarding" approach:

Figure 1:

	Starting Value	1st Reward	2nd Reward	3rd Reward	Total
	col. 1	col. 2	col. 3	col. 4	col. 5
ex	999	999	999	999	999
ac1=		1	10	20	
ac2.	fta+		-ply+sgn		
ac3	+			-ply+sgn	
ac4		+	+	+	=stb
+	4	1	0	0	1

The first Calculation Line (ac1) enters constants into columns 2, 3, and 4. These will be used to hand out rewards!

The second Calculation Line (ac2) enters the value we want to begin with (that is, fta+)--I have assumed that this value will come from some other calculation, and so it has been "fetched" as if from elsewhere. Let's say this value is 4 for the moment. Next, the constant value (that is, 10) in col. 3 is subtracted from the value in col. 1

Converting Ranges—*continued*



(that is, 4). The subtraction, of course, leaves a negative result (that is, -6). The 'ply' terminator symbol prunes out negative (and zero) results and converts them to zero. Hence the interim result in col. 3 is a zero. Next, the zero is entered into the T/Maker calculator by the '+' sign in col. 3. Finally, the 'sgn' terminator symbol takes the sign of that entered value (a zero becomes a '0' and a positive value becomes a '+1'). Thus, a zero is placed in column 3. In spirit, this Calculation Line says: 'I will give you a 1-point reward for being a value that exceeds 10; if you are not such a value you get only '0' points.'

The third Calculation Line does much the same thing, this time using a test value of 20. Any value equal to or less than 20 will get a '0' in col. 4; any value 21 or greater will get a '1' in col. 4.

The fourth Calculation Line simply adds up the points a given value was able to earn. All values get 1 point in col. 2, values greater than 10 get 1 point in col. 3, and values greater than 20 get 1 point in col. 4. Our test value of 4, of course, gets only 1 point total. (I've 'stored' the result, here, on the assumption that it will be used later on somewhere in the calculation we are performing.)

Below, in Fig. 2, I have repeated the calculation, this time with a number of values, so that one can get a better look at how it works:

Figure 2:

	Starting Value	1st Reward	2nd Reward	3rd Reward	Total
	col. 1	col. 2	col. 3	col. 4	col. 5
ex	999	999	999	999	999
ac1=		1	10	20	
ac2	+		-ply+sgn		
ac3	+			-ply+sgn	
ac4		+	+	+	=stb
+	0	1	0	0	1
+	1	1	0	0	1
+	5	1	0	0	1
+	9	1	0	0	1
+	10	1	0	0	1
+	11	1	1	0	2
+	15	1	1	0	2
+	19	1	1	0	2
+	20	1	1	0	2
+	21	1	1	1	3
+	25	1	1	1	3
+	90	1	1	1	3

Converting Ranges--*continued*

This method lends itself to a variety of modifications. Say, for example, you wanted to give those with a value of 21 or greater a score of 5 (rather than 3) points. In other words:

<u>initial</u> <u>value</u>		<u>recoded</u> <u>value</u>
-10	=>	1
11-20	=>	2
21+	=>	5

This is easily done. Below, I have altered the 'reward' for high values by adding a new Calculation Line (ac4*), which serves to multiply the number in col. 3 by 3. This, then, makes the reward for having a value of 21 or greater 3 points instead of 1.

Figure 3:

	<u>Starting</u> <u>Value</u>	<u>1st</u> <u>Reward</u>	<u>2nd</u> <u>Reward</u>	<u>3rd</u> <u>Reward</u>	<u>Total</u>
	<u>col.</u>	<u>col.</u>	<u>col.</u>	<u>col.</u>	<u>col.</u>
	1	2	3	4	5
ex	999	999	999	999	999
ac1=		1	10	20	
ac2	+		-ply+sgn		
ac3	+			-ply+sgn	
ac4*				3	
ac5		+	+	+	=stb
+	35	1	1	3	5

--Ron Roizen

T/IPS



PRINTING MANY DOCUMENTS: Many of you probably run your business like we do. You write a number of letters, save them as individual files, and then print them all out. We find it is quite helpful to create one file called "printall" which contains the following:

```
PRINT NONSTOP JONES DO
PRINT NONSTOP TAXLETR1 DO
PRINT NONSTOP TAXLETR2 DO
PRINT NONSTOP SIMPSON DO
PRINT NONSTOP SIMPSON DO
PRINT NONSTOP MOTHER
```

We SAVE this file, then type DO, and it prints the letters Jones, Taxletr1, Taxletr2, two copies of Simpson, and Mother. Extra copies of any of the letters are made simply by duplicating the print command line for that letter once for each extra copy desired.

The next time we need to print out some letters, this same file can be used-- only the names need to be changed. If you hand-feed your paper, just leave out the nonstop and you will get the familiar printer prompt before it prints each letter.

LIGHTING T/MAKER WITH A RAM DISK: One of the computers we use at our office is a Hyperion micro computer. It is an IBM compatible machine which has 256K of memory, some of which can be designated as a RAM disk. By putting some T/Maker files on the RAM disk, it is possible to significantly speed up some functions. Our setup is as follows:

Drive A: T/Maker.com
 T/Maker.utl
 T/Maker2.com

Drive B: (other data)

Drive C: Compute.tmk
 Align.tmk
 Bar.tmk
 (etc. and your data file)

More T/ips

We set up a batch file to transfer the files to Drive C (the RAM disk). The trick to execution is to get on Drive C, and then execute T/Maker.

Example: C>A:tmaker

This way, T/Maker looks for the *.tmk files on Drive C, which is in fact where they are. One major point to remember: BEFORE turning off the machine, copy your data file off Drive C, and onto non-volatile magnetic storage (Disk Drive A or B).

Editors Note:

By the way, for those of you following this column, the name "T/IPS" was suggested by Ron Roizen, whose tips are often featured here.

T/MUG BACK ISSUES

Many of you have requested back issues of the T/MUG Newsletter. They are now available in a set of seven issues (Separate back issues cannot be purchased). These issues reflect part of the history of T/Maker Company (before it was called T/Maker Company) as well as the revisions T/Maker has undergone to produce T/Maker III. Here are some highlights:

* 1040 Federal Tax Form * Checking Account System * Analyzing Business Performance * Invoicing System * Opening an IRA * Analyzing Survey Data

The entire set is available for \$15 for shipment to US, Canada, and Mexico. Other countries please add \$15 for air mail charges, and please submit an international money order or US bank check drawn in US dollars. Make check out to T/Maker Company at 2115 Landings Drive, Mountain View, CA 94043. Please be sure to note it is a back-order so we don't confuse it with a subscription renewal.

ANALYZING SURVEY DATA WITH T/MAKER

Part IV: Yule's Q and Phi



Note: This is the fourth in a series of articles on how to analyze survey data with T/Maker. The first described setting up the data set; the second showed how to clean the data, run marginals, and do recodes, collapses, and typologies. The third and the present installments discuss tables and measures of association.

Last time, we discovered a fairly strong association between gender and one's Taste for Pro Football (TPF) in our data. This time we'll consider two measures of this strength: Yule's Q and Phi.

TABLE 1: TASTE FOR PRO FOOTBALL BY GENDER

\Gender\	Like Pro Football?				\Total\
	\Yes\		\No\		
Females	a	2	b	7	9
Males	c	7	d	4	11
Total	9		11		20

Above is the table we examined last time. It will be convenient to add letter designations (a, b, c, and d) to the four cells of this table.

Yule's Q

It's a good idea to think of a particular measure of association in terms of the kind of assertion it makes. Yule's Q, for example, thinks of a relationship in terms of the concentration of cases in the diagonals of a table. The formula is:

$$Q = \frac{ad - cb}{ad + cb}$$

Q asks, in other words, how much the cases in one diagonal predominate over the cases in the other. A T/Maker calculation of Q might look something like this:

ANALYZING SURVEY DATA WITH T/MAKER--continued

Fig. 1

=====										
CALCULATING YULE'S Q WITH T/MAKER										
		a	b	c	d	ad	bc	A	B	Q
ex		99	99	99	99	999	999	ad-bc	ad+bc	A/B
ac1		+			*	=				99.99
ac2			+	*			=			
ac3						+	-	=		
ac4						+	+		=	
ac5								+	/	=
=====										
+	Line 1	2	7	7	4	8	49	-41.0	57.0	-0.72
+	Line 2	1	7	7	5	5	49	-44.0	54.0	-0.81
+	Line 3	0	7	7	6	0	49	-49.0	49.0	-1.00
+	Line 4	3	7	7	3	9	49	-40.0	58.0	-0.69
=====										

Line 1 of this calculation shows the value of Yule's Q for the relationship between gender and TPF we found in Table 1, that is, -.72.

Lines 2, 3, and 4 illustrate an important feature of Q: Notice that the number of cases in the b and c-cells remains constant at 7 in all three lines. The total number of cases in the a and d-cells remains constant, too, at 6--however, the distribution of the cases between the a-cell and the d-cell changes. In Line 2 there is 1 case in a-cell and 5 cases in d-cell; in Line 3, 0 in a-cell, 6 in d-cell; in Line 4, 3 in a-cell, 3 in d-cell. Notice that the value of Yule's Q, however, varies considerably over the Lines, from a low of -.69 to a "high" value of -1.00 (in our table, of course, we can ignore the sign of the association).

The problem is that as any single cell approaches 0 Yule's Q approaches +1 or -1. This makes Yule's Q handy for some specialized sorts of relationships: Suppose, for example, that one were studying the effectiveness of a particular course in preparing students to pass a certain test. If the results were to come out as in Table 2, below, one might think it okay that Yule's Q gave the association a +1.00 value. After all, the course seems to have performed as well as it possibly could! For other sorts of relationships, however, this feature of Yule's Q is not so desirable.

ANALYZING SURVEY DATA WITH T/MAKER--continued



TABLE 2: PASSING THE EXAM BY TAKING THE COURSE

\Took Course?\	Passed Exam?		\Total\
	\Yes\	\No\	
Yes	a 100	b 0	100
No	c 50	d 50	100
Total	150	50	200

Phi

Phi has the same numerator as Yule's Q but its denominator is different: Phi "distributes" the denominator over a more general territory, so to speak. This makes Phi less responsive than Q to cells with no cases in them. Phi's formula is:

$$\text{Phi} = (ad - bc) / \sqrt{(a+b)(c+d)(a+c)(b+d)}$$

Once more, I have presented a T/Maker calculation of the statistic below. Notice that this calculation uses the same cell values as were used in our examination of Yule's Q. Notice, too, that Phi's value varies much less across the test lines. In general Phi's values are more modest than Q's, too--for example, for the relationship we saw in Table 1 Yule's Q had a value of -.72 whereas Phi's value is only -.41.

Fig. 2

COMPUTING PHI WITH T/MAKER

	a	b	c	d	ad	bc	ad-bc	denom.	Phi	
ex	99	99	99	99	999	999	9999.9	9999.9	999.99	
ac0	sta	stb	stc	std						
ac1	+			*	=					
ac2		+	*			=				
ac3					+	-	=			
ac4	+	+=ste	+	+=stf						
ac5	+		+=stg							
ac6		ftb+		ftd+=						
ac7	fte+	ftg*	ftf*	*				sqr		
ac8	fta	ftb	ftc	ftd			+	/	=	
+	Line 1	2	7	7	4	8	49	-41.0	99.0	-0.41
+	Line 2	1	7	7	5	5	49	-44.0	96.0	-0.46
+	Line 3	0	7	7	6	0	49	-49.0	91.0	-0.54
+	Line 4	3	7	7	3	9	49	-40.0	100.0	-0.40

ANALYZING SURVEY DATA WITH T/MAKER--continued

Phi is not without its own drawbacks. For one, Phi's value is limited by the distribution in the marginals of a table. Specifically, the more unlike each other the marginals are, the lower will be the maximum Phi might reach. This is easy to see by means of an example.

Suppose that we had had 10 males and 10 females in our sample. Further suppose that we found only 4 respondents who liked pro football and 16 respondents who didn't. These two sets of marginals, then, are quite unlike each other. In Table 3, below, I have arranged the data so that--within the constraints of these marginals--the strongest possible association between gender and TPF is had: all the pro football "likers" are males and all the "dislikers" females. Nevertheless, as we can see in

TABLE 3: TASTE FOR PRO FOOTBALL BY GENDER

\Gender\	Like Pro Football?				\Total\
	\Yes\		\No\		
Females	a	0	b	10	10
Males	c	4	d	6	10
Total	4		16		20

Figure 3, just below, Phi regards this association as a pretty weak one, awarding it a value of only -.38. Sometimes researchers use an adjusted version of Phi, in which the conventional value of Phi is divided by the maximum value Phi might have reached given the marginals found in the relationship. This is called "Phi over Phi-max." Of course, one can also argue that the limit imposed by the marginals is a feature of nature that Phi ought to reflect.

Fig. 3

COMPUTING PHI WHEN THE MARGINALS ARE UNLIKE EACH OTHER

	a	b	c	d	ad	bc	ad-bc	denom.	Phi	
ex	99	99	99	99	999	999	9999.9	9999.9	999.99	
ac0	sta	stb	stc	std						
ac1	+			*	=					
ac2		+	*			=				
ac3					+	-	=			
ac4	+	+=ste	+	+=stf						
ac5	+		+=stg							
ac6		ftb+		ftd+=						
ac7	fte+	ftg*	ftf*	*				sqr		
ac8	fta	ftb	ftc	ftd			+	/	=	
+	Line 5	0	10	4	10	0	40	-40.0	105.8	-0.38

ANALYZING SURVEY DATA WITH T/MAKER--*continued*



A couple of final points might be mentioned about Phi: (1) Its value is the same as the Pearson's product moment correlation coefficient in four-fold tables; and, (2) The square of Phi is equal to Chi Square divided by N (N, of course, is the number of cases in the sample)--this second characteristic of Phi is handy because it provides a ready path between Phi's utility as a measure of association and Chi Square's utility as a test of significance.

--*Ron Roizen*

--ANNOUNCEMENT

Free Tea Mug

We need information about different terminals not already listed by TModify. If you have configured T/Maker III for a terminal that is NOT listed below, then you are eligible to receive a free T/Maker tea mug. We would appreciate your help. Please complete the terminal control data form which follows this announcement.

LEAR SIEGLER - ADM3A
LEAR SIEGLER - ADM31
NORTH STAR ADVANTAGE
RADIO SHACK II - LIFEBOAT CP/M
HAZELTINE 1420
HAZELTINE 1500
SOROC IQ 120
ANN ARBOR AMBASSADOR ANSI X3.64
NETRONICS VIDEO TERMINAL
HEATH/ZENITH TERMINAL/COMPUTER
TVI 912/920 TERMINAL
ARCHIVES COMPUTER
PERKIN ELMER - 550
XEROX 820 COMPUTER
OSBORNE COMPUTER

If you are running T/Maker on any other terminals or computers, please send us the following information and claim your T/Maker tea mug.

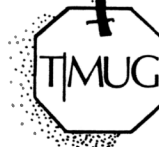
--continued from Announcement

T/Maker Terminal Specifications:

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		Example ADDS Viewpoint	Your Terminal/ Computer
I.	ROW/COLUMN: -----		
1.	Number of Rows	24	-----
2.	Number of Columns	80	-----
II.	ADDRESSING THE CURSOR: -----		
	When addressing the cursor, will values be:		
3.	Single Characters or Character Digits? (usually row or column number should be sent as a single character corresponding to the number (eg. 45 for -) and not the two characters 4 and then 5.)	Single Chars	-----
	T/Maker needs the sequence for absolute cursor addressing.		
	How do you address the:		
4.	Top Row (usually 0 or 32) Space	32	-----
5.	Leftmost Column (0 or 32) Space (eg. top left corner is (32,32) ASCII(Space,Space)	32	-----
	What is the sequence to position the cursor:		
6.	Number 1 ESC	27	-----
7.	Number 2 Y	89	-----
8.	Number 3 row	255	-----
9.	Number 4 column	254	-----
10.	Number 5	0	-----
11.	Number 6	0	-----
12.	Number 7	0	-----
13.	Number 8	0	-----
	(eg. to position cursor at screen center (12,40) sequence is : "ESC, Y, +, G" for ADDS terminal)		

--continued from Announcement



III. MANDATORY FEATURES:

These are the minimum terminal features required
to run T/Maker:

14.	Carriage Return	^M	13	0	-----
15.	Line Feed	^J	10	0	-----
16.	Backspace	^U	21	0	-----
17.	Clear Screen	^L	12	0	-----

IV. OPTIONAL FEATURES:

These features enhance and speed up the operation of
the program. They are not required but are desirable.

18.	Make Beep	^G	7	0	-----
19.	Erase to End of Line		0	0	-----
20.	Erase to End of Screen		0	0	-----
21.	Line Insert		0	0	-----
22.	Line Delete		0	0	-----
23.	Character Insert		0	0	-----
24.	Character Delete		0	0	-----

WHERE TO BUY T/MAKER III (OR UPGRADE FROM T/MAKER II)

T/MUG

COMPUTER POTENTIALS, 2350A Walsh Avenue, Santa Clara, CA 95061, (408) 980-9100, 800-467-4177
DATASOLVE CORPORATION, 727 N. Hudson, Chicago, ILL 60610, (312) 943-9141
LIFEBOAT ASSOCIATES, 1661 Third Avenue, New York, NY 10028, (212) 860-0300
SOFTSEL COMPUTER PRODUCTS, 546 N. Oak Street, Inglewood, CA 90302, (213) 412-1700, 800-646-7777
SOFTWARE WHOLESALERS, 31 Memorial Drive, Avon, Mass. 02322, (617) 687-2904, 800-633-1000
WESTICO, 25 Van Zant Street, Norwalk, Conn, (203) 853-6880

ALFATRON PTY. LTD., 1761 Ferntree Gully Rd., Ferntree Gully, VIC 3156, Australia
AUSDATA, P.O.Box 664, Chatswood, N.S.W. 2067, Australia
COMPUTER TECHNIQUES, Atherstrasse 5, Postfach 781, CH 6301 Zug, Switzerland
LIFEBOAT ASSOCIATES LTD., P.O.Box 125, London WC2H 9LU, England
LIFEBOAT FRANCE, 70 Avenue d'Argenteuil, 92600 Asnieres, France
LIFEBOAT SWITZERLAND, Hinterbergstrasse 9, CH-6330 Cham, Switzerland
M & T SOFTWARE VERLAG, Hans-Pinsel Strasse 2, 8013 Haar bei Munich, West Germany
LIFEBOAT SCANDINAVIA, Per Nilsbyn 46, Z4500 Staffanstorp, Sweden

SUBSCRIPTION/APPLICATION FORM T/MAKER USERS GROUP 2115 LANDINGS DRIVE, MOUNTAIN VIEW, CA 94043

Members of the T/Maker Users Group receive a bimonthly newsletter providing examples of other members' experiences with T/Maker in the areas of text editing, financial modeling, personal and business accounting, mathematical and statistical applications, and many other fields of interest. The T/Maker newsletter will also provide answers and solutions to members' technical and nontechnical questions and problems relating to their use of T/Maker.

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MY HARDWARE AND SOFTWARE CONFIGURATIONS ARE:

COMPUTER: MANUFACTURER _____ MODEL _____ MEMORY _____
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OPERATING SYSTEM: _____ VERSION _____
T/MAKER VERSION: _____

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