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MAY 13, 1989

Calendar at right shows dates

Understanding the Technology

Function Key

Florey

Software

Interface Operation Central Processing Surme Control Unit Device. Bulput Peripherals (hardyare) I/d Error) Supplementary Pebugg ing Systen Page Contents Computer Cover ..... TIPS From The Tiger Cub #42.... Print A Tag..

\* diagram Courtesy of N.O.V.A. April 1989 NewsLETTER

Computer Cover by Helen Griffin

Cleanliness is next to godliness, they say, but when it comes to your home computer, cleanliness is the key to trouble-free computing.

We all know that we should cover our computers when not in use, but some of us don't always get around to doing it. One reason, I suspect, is the covers.

Many are bulky, and unsightly, and awkward to use, and no longer fit now that we have a speech synthesizer, or a cartridge expander, or a new keyboard.

There is a simple, universal cover that can be easily constructed by anyone who has access to a sewing machine and a small piece of cloth. The same cover will fit a standard TI keyboard, and Epson or equivelent printer, and will work with or without a cartridge expander in place. It folds up neatly. While I am writing this up on my TI, and my cover is sitting on top of my monitor, without blocking any of the air-cooling vents.

The basic construction is fan-fold. There is no shaping, or seams. You start with a piece of midweight fabric, something such as lightweight slipcover fabric, or tablecloth fabric. A gaberdine, or "sports" weight cotton are also excellent. You need a piece 19 inches by 30 inches, and two small scraps, 3 inches by 6 inches. You may use a slightly larger piece, but do not use any thing smaller.

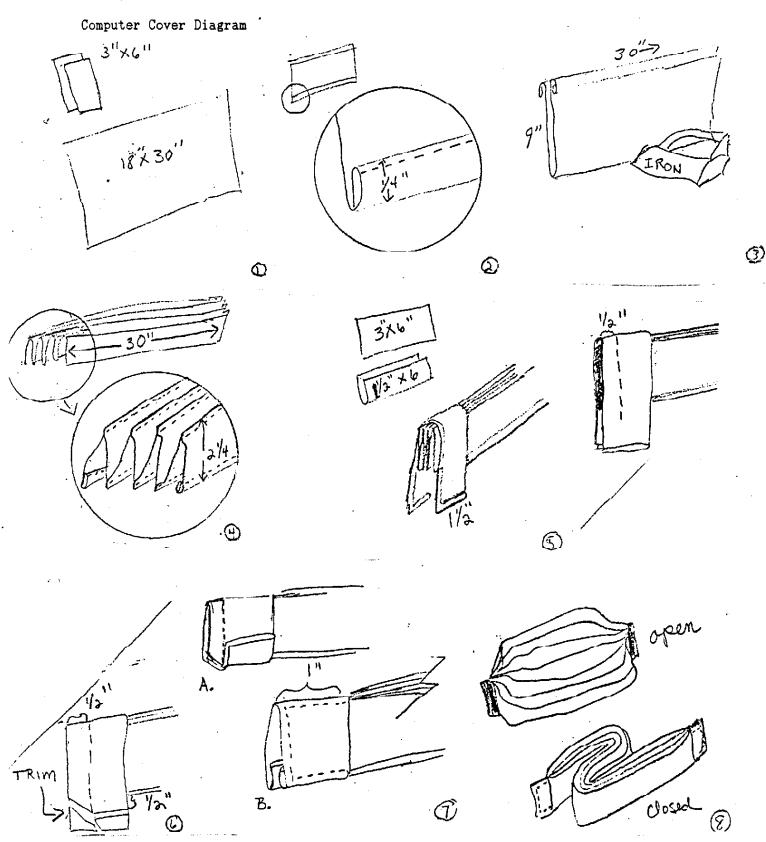
First, turn a narrow hem along both of the 30 inch edges. It should be about  $\frac{1}{4}$  of an inch. Then, fold the cloth in half, right sides together, so that you have a rectangle 9 X 30, press the fold. Fan-fold each half, making the pleats each about  $2\frac{1}{4}$  inches deep. If you use a larger piece of fabric, you may need to make larger pleats, or more, slightly smaller, pleats to have it work out even. End with the right side out.

A 19 inch, (18 after hemming) piece will yield a total of  $4--2\frac{1}{4}$  inch fan-fold pleats.

Press the fold lines, then stitch along the edges of the folds to make crisp pleats. Your are now half-way to finishing your cover.

To finish the edges, take one of the small rectangles of cloth, fold it half to make it about  $1\frac{1}{2}$  by 6 and fold it over the edge of the of the tan-told, raw edge to raw edge. Stitch through all the layers, about  $\frac{1}{2}$  an inch from the edge. Trim away the excess fabric, about  $\frac{1}{2}$  an inch from the bottom. Fold up this raw edge, bring the folded edge forward, to cover the raw edges of the fan-folds and top stitch this tab. The finished tab will be about 1 inch by  $2\frac{1}{4}$  inches (the pleat depth). Repeat on the other side. (refer to illustrations for clear understanding)

Finished, it will stretch out to cover your computer easily, and will fold up in a snap while you use your computer. If your fabric is washable, you can machine wash the cover to wash out the dust.



TIPS FROM THE TIGERCUB

#42

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Over 130 original programs in Basic and Extended Basic, available on cassette or disk, now reduced to just \$2.00 each, plus \$1.50 per order for cassette or disk and PP&M. Cassette programs will not be available after my present stock of blanks is exhausted.

[Programs have been further reduced to \$1.00 each, ED.]

Descriptive catalogs, while they last, \$1.00 which is deductable from your first order.

Tigercub Full Disk Collections, reduced to \$10 post-paid. Each of these contains either 5 or 6 of my regular \$1 catalog programs, and the remaining disk space has been filled with some of the best public domain programs of the same category. I am NOT selling public domain programs - they are a free bonus!

TIGERCUB'S BEST, PROGRAMMING TUTOR, PROGRAMMER'S UTILI-TIES, BRAIN GAMES, BRAIN TEASERS, BRAIN BUSTERS!. MANEUVERING GAMES. ACTION AND CONCENTRATION. REFLEX TWO-PLAYER GAMES, KID'S GAMES, MORE GAMES, WORD GAMES, ELEMENTARY MATH, MID-DLE/HIGH SCHOOL MATH, VOCAB-ULARY AND READING, MUSICAL EDUCATION, KALEIDOSCOPES AND DISPLAYS

[Collections have now been reduced to \$5.00 each. ED.]

NUTS & BOLTS (No. 1), a full disk of 100 Extended Basic utility subprograms in merge format, ready to merge into your own programs. Plus the Tigercub Menuloader, a tutorial on using subprograms, and 5 pages of documentation with an example of the use of each subprogram. Reduced to \$15.00 postpaid.

NUTS & BOLTS NO. 2, another full disk of 108 utility subprograms in merge format, all new and fully compatible with the last, and with 10 pages of documentation and examples. Also \$15 postpaid.

TIPS FROM THE TIGERCUB, a full disk containing the complete contents of this newsletter Nos. 1 through 14, 50 original programs and files, reduced to \$10 ppd. TIPS FROM THE TIBERCUB VOL. 2, another diskfull, complete contents of Nos. 15 through 24, over 60 files

and programs, also just \$10 TIPS FROM THE TIGERCUS VOL. 3, another 62 programs, tips and routines from Nos. 25 through 32, \$10 postpaid. TIPS FROM THE TIGERCUS VOL. 4, another 48 programs and files from issues 33 through 41, also \$10 postpaid.

I'm very sorry about the error in the BXB routine in Tips #40. The "program to write a program" generated line number 32000 instead of 30002. Here is the correct line -

110 OPEN #1:"DSK1.BXBDATA",V ARIABLE 163,OUTPUT :: PRINT #1:CHR\*(117)&CHR\*(50)&"J[\[] \$"&CHR\*(190)&CHR\*(199)&CHR\*( 136)&M\*&CHR\*(0)

The Hyphenated Fill and Adjust in Tips #41 will crash if the file contains a line with one character too many, which may be only an unnecessary control character. This fix will help =

300 IF LEN(M\$) <= L THEN 310 :
: CALL SOUND(200,110,0,-4,0)
:: PRINT M\$;" is"; LEN(M\$); "C
haracters long": "Truncated t
o "; SEG\$(M\$,1,L): "DK? (Y/N)"
305 CALL KEY(3,K,S):: IF S=0
THEN 305 ELSE IF K<>89 THEN
STOP ELSE M\$=SEG\$(M\$,1,L)
310 PRINT #2:M\$ :: IF EUF(1)
<>1 THEN 220 ELSE CLOSE #1 :
: CLOSE #2

I know that this line is wrong, but key it in just as it's printed, and see what kind of error message you get -

100 !DISPLAY AT(3,1): "Program must be SAVEd in: "MERGE format."

TIGERCUB TIPS #42 PAGE 2

A friend asked me for a program to help him solve the Scram-Lets puzzles in our local newspaper, so I rewrote the Anagrammer that was published way back in Tips #12. It will print out all possible combinations of any 3- to 6-letter word, or only those which have one or two letters in specified positions.

100 CALL CLEAR :: DISPLAY AT (3,5)ERASE ALL: "SCRAM-LETS S DLVER": :! by Jim Peterson 110 DISPLAY AT(8,1): "OUTPUT TO? 1": " (1) SCREEN": " (2) PRINTER" :: ACCEPT AT(8,12) VALIDATE("12")SIZE(-1):P :: P=P-1

120 IF P=1 THEN DISPLAY AT(1
2,1): "PRINTER? PIO" :: ACCEP
T AT(12,10) SIZE(-18): P\$ :: 0
PEN #1:P\$

130 PL(1),PL(2)=0 :: L\$(1),L \$(2)="" :: DISPLAY AT(5,1)ER ASE ALL:"TYPE A 3-,4-,5- DR 6-LETTER WORD " :: ACCEPT A T(6,6):A\$ :: W=LEN(A\$):: IF (W(3)+(W>6)THEN 130

140 DISPLAY AT(14.1): "SEARCH FOR COMBINATION WITH": "LETT ER IN KNOWN POSITION? N" :: ACCEPT AT(15,27) VALIDATE("YN ")SIZE(-1): Q\$ :: IF Q\$="N" T HEN 180

150 DISPLAY AT(17,1): "LETTER
?" :: ACCEPT AT(17,9): L\*(1):
: DISPLAY AT(19,1): "POSITION
?" :: ACCEPT AT(19,11): PL(1)
160 DISPLAY AT(21,1): "ANOTHE
R LETTER/POSITION? N" :: ACC
EPT AT(21,26) VALIDATE("YN") S
IZE(-1): X\$ :: IF X\$="N" THEN
180

170 DISPLAY AT(21,1): "LETTER
?" :: ACCEPT AT(21,9): L\$(2):
: DISPLAY AT(23,1): "POSITION
?" :: ACCEPT AT(23,11): PL(2)
180 PRINT #P :: FOR J=1 TO W
:: B\$(J)-BEG\$(A\$,J,1):: NEX
T J :: FOR J=2 TO W :: IF B\$
(J)>=B\$(J-1)THEN 220

190 T\$=8\$(J):: FOR L=J-1 TO 1 STEP -1 :: B\$(L+1) \*B\$(L) 200 IF B\$(L-1)>=T\$ THEN 210 :: B\$(L)=T\$ :: GOTO 220 210 NEXT L 220 NEXT J 230 FOR A=1 TO W :: FOR B=1 TO W :: IF B=A THEN 440 240 FOR C=1 TO W :: IF (C=A) +(C=B)THEN 430 250 IF W=3 THEN 310 260 FOR D=1 TO W :: IF (D=A) +(D=B)+(D=C)THEN 420 270 IF W=4 THEN 320 280 FOR E=1 TO W :: IF (E=A) +(E=B)+(E=C)+(E=D) THEN 410 290 IF W=5 THEN 330 300 FOR F=1 TO W :: IF (F=A) +(F=B)+(F=C)+(F=D)+(F=E)THEN 400 ELSE 340 310 W#=B#(A) &B#(B) &B#(C):: I F W\$<=V\$ THEN 430 ELSE 350 320 W\$=B\$(A)&B\$(B)&B\$(C)&B\$( D):: IF W\$(=V\$ THEN 420 ELSE 350 330 W\$=B\$(A)&B\$(B)&B\$(C)&B\$( D) &B\$(E):: IF W\$<=V\$ THEN 41 0 ELSE 350 340 W\$=B\$(A)&B\$(B)&B\$(C)&B\$( D)&B\$(E)&B\$(F):: IF W\$(=V\$ T **HEN 410** 350 IF Q\$="N" THEN 380 360 IF SEG\$(W\$,PL(1),1)<>L\$( 1) THEN 390 370 IF X\$="N" THEN 380 ELSE IF SEG\$(W\$,PL(2),1)<>L\$(2)TH EN 390 380 PRINT #P:W#&" ";:: G=G+1 390 V\$=W\$ :: DN W-2 GOTO 430 .420.410.400 400 NEXT F 410 NEXT E 420 NEXT D 430 NEXT C

And here is a muchimproved XBasic version of

460 PRINT #P: :" ":G:"TOTAL

COMBINATIONS.": : :: 6=0 ::

V\$="" :: PRINT "PRESS ANY K

470 CALL KEY(0,K,S):: IF S=0

THEN 470 ELSE 130

the Adder-Upper which first appeared in Tips #13. I find it very useful in adding up several categories of figures in one pass.

100 CALL CLEAR :: CALL SCREE N(16):: FOR SET=1 TO 14 :: C ALL COLOR(SET,5,1):: NEXT SE T 110 DISPLAY AT(3,4)ERASE ALL

110 DISPLAY AT(3,4)ERASE ALL :"TIGERCUB ADDER-UPPER": :"T o add up several categories" :"at one time.": :"Input cat egories - END when":"finishe d"

120 CALL KEY(3,K,S):: DIM C\* (22),T(22)

130 X=X+1 :: DISPLAY AT(12,1
):"Category #";STR\*(X):: ACC
EPT AT(12,13):C\$(X):: IF C\$(
X)="END" THEN X=X-1 :: GOTO

140 A\$=SEG\$(C\$(X),1,1):: IF POS(F\$,A\$,1)=0 THEN F\$=F\$&A\$ :: IF X<17 THEN 130 ELSE 17

150 DISPLAY AT(15,1):"Code I etter ";A\$;" already":"used. ":"Pick another code letter" :: ACCEPT AT(17,26)SIZE(1): A\$

160 IF POS(F\$,A\$,1)<>0 THEN DISPLAY AT(15,1):;;;;;;;; GOTO 150 ELSE F\$=F\$&A\$ :: C\$ (X)=A\$&C\$(X):: DISPLAY AT(15,1):;;;;;;: IF X<17 THEN 1 30 ELSE 170

170 CALL CLEAR :: R=2+(X>8):
: FOR J=1 TO X :: DISPLAY AT
(R,1): "(";SEG\*(C\*(J),1,1);")
";SEG\*(C\*(J),2,255):: R=R+2+
(X>8):: NEXT J

180 DISPLAY AT(R+2,1): "Category ";F\$:: DISPLAY AT(R+4,1): "Amount"

190 DISPLAY AT(24,1): "Use minus value to subtract"
200 ACCEPT AT(R+2,11+LEN(F\$)

>SIZE(1) VALIDATE(F\$): Z\$ :: Y =POS(F\$,Z\$,1)

210 ACCEPT AT(R+4,8) VALIDATE (NUMERIC): A :: T(Y) = T(Y) + A : : DISPLAY AT(Y\*(2+(X>8)),20) :T(Y):: GOTO 200

440 NEXT B

450 NEXT A

EY#

TIGERCUB TIPS #42

PAGE 3

Can you figure this one out? (I can't!) -

100 DISPLAY AT(3,4) ERASE ALL :"ILLOGICAL COMPUTER!!"; ;" by Tigercub"

110 DISPLAY AT(7,1): "100 IF A=2 THEN IF B=2 THEN C=4 ELS E IF A=2 THEN IF B=3 THEN C= & ELSE IF A=3 THEN IF B=3 THEN EN C=9 ELSE IF A=3 THEN IF B =4 THEN C=12 ELSE C=9"

120 DISPLAY AT(14,1):"Why can't you get C to ":"equal 9 or 12 or 99?"

130 DISPLAY AT(18.1); "A? " :
 ACCEPT AT(18,4): A :: DISPL
AY AT(20,1): "B? " :: ACCEPT
AT(20,4): B

140 IF A=2 THEN IF B=2 THEN C=4 ELSE IF A=2 THEN IF B=3 THEN C=6 ELSE IF A=3 THEN IF B=3 THEN C=7 ELSE IF A=3 THEN IF B=4 THEN C=12 ELSE C=9

150 DISPLAY AT(22,1):"C=";C :: GOTO 130

This might come in handy to dress up a program -

100 CALL CLEAR :: CALL COLOR (2,5,16):: CALL HCHAR(1,1,42,768)

110 X=X+1 :: DISPLAY AT(X,9)
:"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*;:: DISPLAY
AT(X+1,9):"PRESS ANY KEY";::
DISPLAY AT(X+2,10):"TO CONT
INUE";

120 CALL KEY(0,K,S):: ON S+1 GOTO 110,130

130 !continue program here

Or, if you'd rather do it backwards -

100 CALL CLEAR :: CALL COLOR (2,5,16):: CALL HCHAR(1,1,42,768)

 Y AT(X,9):"PRESS ANY KEY"; 120 CALL KEY(0,K,S):: ON S+1 GOTO 130,140 130 NEXT X 140 !continue program herm

You might find this one useful -

100 ! PAINT CALCULATOR by Ji a Peterson 110 CALL CLEAR :: FOR SET=1 TO 12 :: CALL COLOR(SET,2,8) :: NEXT SET :: CALL SCREEN(5 ):: CALL KEY(3,K,S):: ON WAR NING NEXT 120 DISPLAY AT(3,7) ERASE ALL : "PAINT CALCULATOR": : "To de termine the amount of":"pain t needed for a room." 130 DISPLAY AT(8.1): "Is the room a regular square or rec tangle? Y" :: ACCEPT AT(9,16 ) SIZE (-1) VALIDATE ("YN") BEEP: Q\$ 11 IF Q\$="Y" THEN 160 140 DISPLAY AT(11,1): "How ma ny rectangular areas":"does the room contain?" :: CALL A CCEPTER(12,24,A):: IF A=1 TH 150 FOR B=1 TO A :: DISPLAY AT(3,10)ERASE ALL: "AREA #"; B 1: GOTO 170 160 CALL CLEAR 170 DISPLAY AT(5,1): "How hig h is the ceiling?":" ft. in." :: CALL ACCEPTER(6,2 180 CALL ACCEPTER (6,9,HI):: HI=HI/12 :: H=HF+HI 190 DISPLAY AT(8,1) # How man y walls?" :: CALL ACCEPTER(B ,17,W):: CALL HCHAR(5,1,32,6 40) 200 FOR J=1 TO W :: DISPLAY AT(5,10):"WALL #";J: :"Width ft in" :: CALL ACCEPT ER(7,7,4F)

230 CALL ACCEPTER(13,19,0):: IF D=0 THEN 280 240 FOR L=1 TO D :: DISPLAY AT(15,1): "AREA NOT TO PAINT #";L: :;"Width ft in" ;; CALL ACCEPTER(17,10,WDF) 250 CALL ACCEPTER (17,16, WDI) :: WDI=WDI/12 :: WD=WDF+WDI 260 DISPLAY AT(19,1); "Height in" :: CALL ACCEPTER( ft 19,11,HDF) 270 CALL ACCEPTER(19,17,HDI) :: HDI=HDI/12 :: HD=HDF+HDI :: SQ=SQ-WD\*HD :: NEXT L 280 NEXT J :: DISPLAY AT(21, 1): "Paint the ceiling?" :: A CCEPT AT(21,20)SIZE(1)VALIDA TE("YN"):00\* :: IF 80\$="N" T **HEN 320** 290 CALL HCHAR(5,1,32,640):: DISPLAY AT(5,1): "Cmiling di mensions": :" ft in" :: CALL ACCEPT ft ER (7,2,CWF) 300 CALL ACCEPTER(7,8,CWI):: CWI=CWI/12 :: CW=CWF+CWI 310 CALL ACCEPTER(7,17,CLF): : CALL ACCEPTER(7,23,CLI):: CLI=CLI/12 :: CL=CLF+CLI :: SQ=SQ+CW\*CL 320 CALL HCHAR(5,1,32,640):: IF Q\$="Y" THEN 340 330 NEXT B 340 DISPLAY AT(3,1) ERASE ALL :"Total of";INT(SQ+.5);"squa re feet." 350 DISPLAY AT(5,1): "How man y square feet will":"one gal lon of your paint":"cover?" 360 ACCEPT AT(7.8)SIZE(3)VAL IDATE(DIGIT)BEEP:SF :: DISPL AY AT(9,1):"How many coats?" :: CALL ACCEPTER(9,17,C):: G=SQ/SF#C :: G=INT(8+.5) 370 DISPLAY AT(15,1):"You wi il need";G;"gallons or";G#4; "quarts of paint." 380 CALL KEY(0,K,S):: IF S=0 THEN 380 ELSE STOP 390 SUB ACCEPTER(R,C,Q):: AC CEPT AT(R,C)SIZE(2)VALIDATE( DIGIT BEEP: Q :: SUBEND

Memory full! - Jim P.

210 CALL ACCEPTER(7,13,WI)::

220 DISPLAY AT(11,1): "How ma

ny doors, windows or": "other

areas not to be": "painted i

SQ+H\*WW

B wall #";J;"?"

WI=WI/12 :: WW=WF+WI :: SQ=

WORDS THEY NEVER TAUGHT MY SPELL CHECKER

The Dragonslayer 99/4A Auto Spell Check has a 20,000 word dictionary, more than I thought I would ever need. didn't think I even knew 20,000 words. Yet it seems I am always coming up with words that are not in its two dictionaries.

Fortunately there are provisions for creating your own user dictionaries. The procedure is rather simple. You run a program called SEEDSEN in TI Basic and give each dictionary a unique name. Words that are not in the Spell Checker's dictionaries can be added to your user dictionaries and future documents checked against these user dictionaries.

The documentation states that the capacity of each user dictionary is 2,000 words. Don't try to test this limit. You will find that after about 500 words the user dictionaries take a long time to load in, sort and merge your new words and resave to disk. I gave up after about a 1,000 words and started a new dictionary.

How can you tell how many words in your user dictionary? Simple, it is in Display Variable 80 format. You only need to load it into TI Writer to look at it. Each word is on a separate line in alphabetical order. They are grouped by the initial letter and each group is headed by the letter of the alphabet designating that group. Look at the last line number, subtract 53, and you have the number of words in your dictionary.

By the way, whenever the Spell Checker questions a word, it is good practice to check the spelling of the word in a hard copy dictionary before adding it to your user dictionary. Ιf you add an incorrectly spelled word, the Spell Checker will accept all füture incorrect spellings.

Should you add a misspelled word to the dictionary, all is not lost. Just Just load the dictionary into TI-Writer, correct the spelling and resave the file.

When I started using the Spell Checker, I was anazed at the number of three and four letter words that it did not know. Words like AIDS, AIM, APPLE, (I suspect a mental block there!) and AUNT.

But the biggest surprise came when I used the word "Procrustean" in one of my essays. I sat back waiting for the Spell Checker to complain and it never murmured. Unbelievingly, I created a separate file with just that one word and ran it through the Spell Checker. Again, silence. Can someone who has trouble with "CAR" know enough about Procrustes to accept the adjective? I looked at the main dictionaries, (you must load them in in sections), and sure enough there it was, PROCRUSTEAN. Well not quite, but close enough. The root is shown and all acceptable suffixes. Amazing! And that's another word. I did have to add AMAZE and we'll see what happens when I check this article.

So what's all this to you? Well you can save yourself some time in the future if you create some user dictionaries containing the words Spell Checker is not familiar with. On the following two pages are some 1,000 words which you can make into two dictionaries.

First run SEEDGEN and create a couple of skeleton dictionaries. Load one into TI-Writer. The first line will contain CHR\$(20); the next line the letter A followed by a line with only a carriage return. Insert several lines (Function S) after the line with the carriage return. On each of these lines type one of the words beginning with the letter A from the following list, maintaining the alphabetical order. Répeat for each of the letters of the alphabet, inserting as many lines as there are words in that group. Enter words beginning with A to M in one dictionary and the N to I words in the other one. Do not delete the unused letters from the dictionaries.

Be extremely careful with your typing. A misspelling here will allow a subsequent similar misspelling to be accepted as correct. If, do to some error, the Spell Checker does not accept your dictionary, not to worry. Create two more user dictionaries with SEEDGEN using different names. Run each of the dictionaries you just typed in through the Spell Checker and add each word as it is questioned to your new user dictionaries.

It may seem like a lot of work, but look at it this way, YOU CAN TYPE 'EM IN NOW OR YOU CAN TYPE 'EM IN LATER! And it will be nice to know your Spell Checker is a 1,000 words smarter. And sentences like: "SHE PINS HAT. OOPS! AIM CAR ATOP BUS. OH, LOTS FUN!" will be accepted without question.

MYDICTI	BIORHYTHM	COMPRISED	DISCOVERING	FOREARNED	unpanne	LIVING
11101011	BIORHYTHMS	COMPUTERIZED	DISTURBED	FORMATTER	HORRORS HUNDREDS	LIKINS Limiting
A	BIRTHDAYS	CON'S	DIVIDENDS	FORTUNATELY	I	LINED
101: 171F6	BLESSING	CONDITIONS	DIVISOR	FREEMAN'S		LINER
ABILITIES ABSORB	BLVD	CONDUCTED	DOCS	FREEWARE	IBM	LINERS
ACCENTUATED	BOARDS Body 'S	CONFORMS CONFUSES	DONATING	FRIDAY	IBM'S	LINKED
ACCEPTED	BOILS	CONGRATULATIONS	DOOR DOS	FRIENDL1ER Fringing	IC'S IDENTIFYING	LINPUT LIVED
ACCOUNTS	BOLD	CONNECTED	DOWNLOADED	FUMBLES	II	LIVES
ACTIVATED	BOOKPLATES	CONNECTIONS	DRAWINGS	FUN	IMBEDDED	Liff
ACTIVITIES	BORDERS	CONNECTOR	DRIVERS	FURNISHED	IMPAIRED	LOADS
AD Adapt <b>ed</b>	BORN	CONNECTORS	DSDD	6	IMPROPERLY	LOGPED
ADAPTER	RORROWED BOTHERED	CONSISTED CONSISTING	DSKN Ducts	GATHERED	INADVERTENTLY	LOOPING
ADAPTING	BOUNCES	CONSOLIDATING	DA	GCHAR	INCIDENTS INCOMPLETED	LOOPS Losses
ADDICTIVE	BRACES	CONSTRAINTS	Ē	GEMINI	INCORPORATES	LOTS
ADJUSTING	BRACKETED	CONSULTATIONS		GENEVE	INCREASES	LOTTERIES
ADMIT	BRAIN	CONT'D	EARNS	GENEVE'S	INCREMENTED	LOTTO
ADMITTEDLY AFFORDS	Branch Breaking	CONTINUOUSLY CONTRIBUTIONS	EASTER	GIFT	INCREMENTING	LOVES
AFCOT	BREAKS	CONTROLLERS	ED EDITORS	GLANCES GLARE	INCREMENTS INFO	LOWEST LS
AH	BROWN	CONVENIENTLY	EDNARD	GOALS	INPUTS	LST
AIDS	BULK	CONVERTED	EMOTIONALLY	GOTO	INPUTTING	LUBE
AIM	BULL	CONVERTING	ENCL	GRADE	INSIDERS	LUGGING
ALERTI <b>ng</b> Alerts	BULLET	CONVEYED	ENDOWED	GRANDCHILDREN	INSPIRED	LUMINANCE
ALGORITHM	BURNS Bus	CORCOMP CORD	ENHANCED	GRANDMA	INSTANCES	H
ALPHA	BYLINE	CORRECTIONS	ENJOYED Ensurin <del>s</del>	GRANDMA'S GRANDPA	INSURMOUNTABLE INT	
ALPHABET	C	EUS1	EPSON	SRANDPA'S	INTELLECTUALY	MÄILED
ALTERED		EDTTY .	EPSON'S	GRAPHICALLY	INTENTIONS	MAILING
ALTERNATIVELY	CAR	COUNTERED	EPSONS	GRAPHX	INTERCHANGED	MAINTAINED
ALTERNATIVES AMATCURS	CARE CARETS	CR CRAIG	ERRONEOUSLY	GRATEFULLY	INTERESTINGLY	MAINTENACE
AMAZE	CARRIERS	CRASH	ESC ESCUTCH <b>EDN</b>	Gratuitously Greater	intersecting Intrafamilial	Makers Manages
AMPERSANDS	CARRYING	CRASHES	ESH	GREETINGS	INVESTED	MANUFACTURER'S
ANCIENT	CASH	CRASHING	ĒTC	GREMLINS	INVITATIONS	MANUFACTURERS
が行	CASHING	CREEP	EUPHENISTICALLY	GREN	INVITED	MARKS
ANGLES	CASSETE	CREPT	EVENLY	GREY	INVOICING	MARLINSPIKE
ANIMALS Announced	CAST CATALOGING	CT CTRL	EVIDENTLY	GRID GRIDEO	INVOLVES	MASQUERADING
AFPENDING	CE	CUBBAHDFE	EVIL FVIIS	SRIPES GROM	ISN'T ITALICIZED	MASTERED MATERIALS
APPLE	CEASES	CUBICLES	EXCLUSIVELY	GROUP'S	J	MD
AFPLES	CELL	CURED	F	GROUPED	•	MEANT
APPLICATIONS	CELLS	CURSORING		GROWS	JANUARY	MEASURING
APPROACHES APPROACHING	CHALLENGING CHANSERS	CACFER	FACES FACILITAT <b>ES</b>	GROWTH	JERSEY	MEETINGS
APPROXIMATELY	CHARACTERISTICS	Ľ	FAIL	GUESSES GUNS	JOHN Joined	MEETS Heno
APRANGED	CHARGE	DABBLED	FAILED	GUTTERS	JOYSTICK	MENOS
. ABCENDENT	CHEERFULLY	DALLAS	FAIRWARE	H	JUDGEMENT	NICHAEL'S
ABCERTAINED	CHOCK	DASHING_	FALSE		JUNPY	MICROPENDIUM
ASCII ASIDE	CHR	DATABASE	FAN	HALLOWEEN	K	MICROSOFT
ASPECTS	CHROMA SLAIN	BAWN Dawned	FATHER'S FCTN	HALVED HANDED	VOVICE	MILLISECONDS
A6389 <b>6D</b>	CLASSES	DEALER	LEB	HANDIER	KBYTES KENNEDY	MINDS Mine
HSSETS	CLIMB	DEALERS	FEBRUARY	HARNESS	KEYBOARD'S	MINORS
ASSIST	CLINGING	DECEMBER	FELLOW	HAT	KEYBOARDS	MISLED
ATARI	CLONES	DECIDING	FELT	HATH	KIBITI	MIX
ATOP ATTACHES	ELOSELY Closes	DEEM <b>ED</b> Deep	FETISH FEWER	HCHAR HCM	KIBITZING KINDS	MOANS MODELS
AUNT	CNTRL	DEFAULTS	FEWEST	HEADER	KNIGHTS	MODERATELY
AUTHOR'S	CO.	DEFENSES	FI	HEART'S	KOLGEN	MONTH'S
AVAILABLE	COILED	DELIBERATELY	FIFTH	HEIGHTS	L	MORN
AWAITING AXIONS	COLTSTER Colored	DELINEATED	FILENAME	HELL	ATECT	MORNINGS
8 Byrong	COMBINATION	DEMARCATE DEMONSTRATIONS	FINES FINISHING	HEXADECIMAL HIDING	LATEST LAUNCHED	HOTHERBOARD
-	COMBINATIONS	DENOTED	FIRES	HIEROSLYPHICS	LAURA	MOTIVES Mounted
BANK	COMMAS	DEPENDS	FLAMLESSLY	HILLER	LEAVES	MS
BASIC'S	COMMITTEE	DESCENDERS	FLESH	HOLES	LEFTMOST	MULTI
BATTLESHIP	COMMODORES	DESIGNATES	FLIPPIES	HOLIDAYS	LEN	MULTICOLOR
BAYSID <b>E</b> BELONGS	COMPATIBLES COMPCNSATED	DESIRABLE DIFFERS	FNCTN	HONING	LENDS	MULTIPLAN
BEMDANED	COMPETING	DIMENSIONAL	FOIBLES FOLDED	HOOKING HOPE <b>D</b>	LENOTHS LF	MULTIPLAN'S MULTIPLYING
BIDIRECTIONAL	COMPILED	DIMENSIONED	FOLKS	HOPEFULLY	LIFTING	MULTIPRINT
BINDERS	COMPILING	DIRECTIONS	FOLLIES	HOPING	LIGHTING	MYARC
910	COMPLEMENTS	DISC	FONT	HORIZONTALLY	FIKER	

bt.	CCCCCCTTTVICT	41.56254				
N	PERFECTIONIST PERIODICALS	OUERIES QUESTIONAIRE	RID	SHINES	SURFACED	UNEVEN
NA	PERTPHERALS	QUESTIONS	RIGHTMOST RISE	SHORTEN SHORTER	SURPASSES	UNFLASHED
NEATER	PERMISSIONS	QUICKER	RISING	SHRANK	SURPRIGED Surprisingly	UNFORTUNATELY UNIDIRECTIONAL
NE3	PERSONALIZED	QUOTED	RM	SIG	SWIMMING	UNIQUELY
NESTED	PF	R	RND	SIMPLER	SYMBOLS	UNLIKE
NEUTRAL	P6		•	SINS	7	UNPACKING
NEWCOMERS	PHASE	RAISED	ROLLING	SITS		UNPLUGGED
NEWER	PHONO	RAN	ROM	SIZED	TABBING	UNPLUGGING
NEWEST	PHOTOCOPIED	RANDOMIZE	RDUNDED	SIZING	TA65	UNREAD
NEWLETTERS NEWSLETTERS	PHRASES PHYSICALLY	RANDOMLY RANGING	ROUNDING	SKILLS	TANGLED	UNRELATED
NF	PICKED	RCA	ROUNDS ROWS	SKIP	TAXES	UNTO
NICER	PICKINS	RD	RS	SLANT SLASH	TECHNIQUES	UNUSUALLY
NJ	PIGEONHOLES	ŘĒ	RULED	SLIGHTEST	TELECOMMUNICATING TEMPERATURE	UPDATES Upgraded
MONINTEGER	PINS	REACHED	RULER	SLOPING	TENDS	UPGRADES
NGR	PIO	READER	RULING	SLOWER	TESTED	UPGRADING
NOSING	PIXELS	READJUST	RUNS	SLOWS	TESTS	UPLOADED
NOTICES	PŁ	REALIZED	RX	SMALLEST	TH	UTILIZED
NAV	PLAYED	REASONED	S	SNIDE	THERE'S	Ÿ
NOVERBER	PLAYS	REASSEMBLED		SOLVE	THEY'RE	
NUMBERING	PLEASANTLY	RECAST	SANS	SOLVES	THINKING	VAGARIES
NY O	PM PARKETE	RECEIVED	SANTA	SOLVING	THINKS	VALENTINE'S
Ų	POCK <b>ets</b> Pointi <b>ng</b>	RECHARGING RECIPES	SAVINES	SON'S	THUMSS	VALIANTLY
DBJECTIONS	POLICIES	RECOGNIZED	SCALE SCANNED	SOULS	II.	VARIATIONS
OBTAINED	POPULARIZED	RECOGNIZES	SCANS	SPACERS	TI'S	VARIES
OBTAINING	PORTIONS	RECOMMENDED	SCORNED	SPARED Spanned	TICKING	YARYI <b>ng</b>
GBTAINS	POSITIONING	KECOPY	SCRATCHERS	BPE <b>CS</b>	TICOFF Tigercub	VCHAR VCR
OCCUR <b>S</b>	POSSIBILITIES	RECORDERS	SCRATCHING	SPECULATOR	TILL	VENDORS
OCT	POSSIBLY	REDEFINE	SCREENS	SPEEDS	TINARC	VERIFIED
OCTOBER	POSTED	REDEFINED	SCREWS	SPELLED	TINT	VERSA
OFFERED	POSTPHONED	REDO	SCROLLS	SPENDS	TINYGRAM	VETERANS
OFF ICERS	PREARRANGED	REDUCE <b>d</b>	SD	SPIRITS	TIPS	VOL
9H	PRECAUTIONS	REDUCING	SECTIONS	SPRINGFIELD	TITLING	¥
3K	PRECEDED	REFLECTS	SEEING	SPRUNG	71	
OLDER GLYMPICS	PRECLUBED	REFORMAT	SEENED	SQUARES	TOGGLED	WAKE
CMISSIONS	PRECUT	RELATING	SEEMING	SQUEEZED	1066LIN6	WARES
2068 F019319NB	PREFERABLY PREFIXIN <b>S</b>	RELATIONAL	SEEMINGLY	3 <b>36D</b>	TOKYO	WARRANTEED
OPENS	PRESCHOOLERS	RELATIVES RELOAD	SEES SESMENTS	ST	TOLERANCES	WATCHING
3F ERÂTED	PRESSES	RELOADING	SELECTABLE	STASES STARTERS	TOM TOPICS	WE'RS
OPERATES	PRICES	REM	SELECTOR	STATED	TOPPED	WEAVE WEDNESDAY
OFFONENTS	PRINTER'S	REMAINING	SELECTS	STATIONS	TRAILING	MEEKTA Menusonmi
022 <b>051NG</b>	PAINTINAS	REMEMBERED	SELLING	STEFFEN'S	TRANSCRIBING	WEEKNIGHT
GPTIONALLY	PRINIDUT	REMOVAL	SELLS "	STICKY	TRANSITING	WHEELS
OPTIONED	PRINTOUTS	REPACK ING	SEMANTICS	STINKS	TRANSLITERATION	WHILST
CRSANIZATIONS	PRINTSTYLE	REPLACING	SENDING	STORE'S	TRANSMITTED	WHOLESALES
CRISINATES	PRIORITIES	REPRESENTED	SENDS	STR	Teaps	HIDER
CRIBINS CUNCE	286/ <b>3</b>	REFRESENTING	5£P	STRAIGHTENS	IRIALS	#IETH
GUTERSWN	PRODEEDS	REPRINTED	SEFARATING	STRAIN	TRIBUTES	WILLING
SVERDRIVEN	PRODUCED PRODUCES	REQUESTING REQUIRING	SEPARATIONS	STREAMLINING	TRIPS	WINNERS
OVERLAY	PROGRAMING	RESEARCHERS	SEPTEMBER SCRIALLY	STRIPPED STRONGLY	TRITON	WINNING
OVERPRINT	PROGRAMMER'S	RESEMBLES	SERVED	STRUCTURED	TROUBLES TRUCKS	WIRES WIRING
OVERSCAN	PROMISING	RESEBUENCE	SERVES	STRUGGLES	TRUSTY	MISHING
GVERSTRIKING	FROMOTED	RESEQUENCED	SERVICED	STUDVING	TUABO	NORKER
OVERWRITE	PRONE	RESERVENCING	SERVING	STYLEALINE	TUTORIAL	WORSE
OHNED	PROVES	RESOLVED	SESSIONS	STYLES	TUTORIALS	MOULDN'T
DWNERS	PROVISIONS	RESPONSES	SEVERNA	SUBJECTS	TV	WYCOVE
F	PUBLISHING	RESTORED	SF	SUBMITTED	TWICE	X
ME CHAPTS	PURCHASED	RESTORES	SHACK	SUBPROGRAMS	Ikos	
PALFAGED PARENTS	PURCHASING	RETYPED	SHADE	SUBSCRIPT	TX	XBASIC
PARSEC	PURPOSES PUZZLES	REVEALED	SHADES	SUBTRACTED	TYPISTS	XOR
PASTIMES	5 LATTER	REVERSES Reversing	SHALL	SUBTRACTING	TYPOS	XT
PAYING	Œ	REVIEWED	SKAPED SHAREMARE	SUCCEEDING SUFFERED	IJ	¥
PC	0B	REVISIONS	SHARPEN	SU <b>GGESTS</b>	JNASSISNED	YOURS
PĒ	<u> </u>	REWARDS	SHARPER	SUPERSCRIPT	UNBELIEVABLE	TUUKS Z
PEAKS	QUALITIES	REWRITTEN	SHARPNESS	SUPPORTING	UNCERTAINTY	•
PECK	QUANTITIES	RGB	SHE	SUPPORTS	UNCOUNTED	ZERDES
FEEKING	QUEENS	RHYTHMS	SHFT	SUPPRESSED	UNDERLINED	ZORK
PENCILS	<b>BUEENSBOROUSH</b>	RIBBONS	SHIFTED	SURER	UNDERLINING	

THIS IS THE LATEST VERSION OF PRINT-A-TAG. IT INCLUDES A BELL BORDER AND PERMITS INSERTING ONE HEART IN THE GREETING

1 ! Copyright 1989 by Ed Mac honis. May be distributed wi thout restriction provided n o price or copying fee is ch arged and this notice is ret ained.

100 CALL CHAR(91,"183C3C3C3C 7EFF08")! BELL

105 CALL CHARPAT(93, W\$):: CA LL CHAR(126, W\$)

110 CALL CHAR(125, "10387C7CF E1038")! XMAS TREE

120 CALL CHAR(93, "00247E7E7E 3C18")! HEART

130 CALL CHAR(96,"1018141434 7060")! MUSIC NOTE

140 CALL CHAR(124, "081E28081 83426")! WALKER

150 CALL CHAR(123,"3C42A581A 599423C")! HAPPY FACE

155 DISPLAY AT(12,5) ERASE AL Li"TURN ON PRINTER!"

160 OPEN #1:"PIO.CR" :: PRIN T #1:CHR\$(27);"E";CHR\$(27);" G"

170 K\$=CHR\$(27)&"L"&CHR\$(12) &CHR\$(0)

180 H\$=K\$&RPT\$(CHR\$(56),2)&R PT\$(CHR\$(124),2)&RPT\$(CHR\$(6 2),4)&RPT\$(CHR\$(124),2)&RPT\$ (CHR\$(56),2)&" \* :: B=1

190 DISPLAY AT(1,3) ERASE ALL
: "\*\*\* PRINT A TAG \*\*\*"

200 DISPLAY AT(3,1): "GREET'G? (17 CHAR'S MAX ~=])" :: DI

SPLAY AT(4,2):Y\$ 11 ACCEPT A T(4,2)BEEP SIZE(-17):Y\$ 11 D \$=Y\$

205 X=POS(D\$,"]",1):: IF X T HEN D\$=SEG\$(D\$,1,X-1)&H\$&SEG \$(D\$,X+2,LEN(D\$)-X)

206 IF X THEN Z=15 ELSE Z=0

210 DD\$=RPT\$(" ",(17-(LEN(D\$)-Z))/2)&D\$&RPT\$(" ",(18-(LEN(D\$)-Z))/2)

230 DISPLAY AT(11,2):STR\$(B)
:: ACCEPT AT(11,2)BEEP SIZE(
-1)VALIDATE("12345678"):B

240 ON B GOTO 250,260,270,28 0,290,300,310,320

250 B\$=K\$&CHR\$(2)&CHR\$(6)&CH R\$(62)&CHR\$(126)&CHR\$(126)&C HR\$(255)&CHR\$(255)&CHR\$(126) &CHR\$(126)&CHR\$(62)&CHR\$(6)& CHR\$(2)&" :: BDTO 330 !BEL

260 B\$=K\$&CHR\$(4)&CHR\$(12)&C HR\$(28)&CHR\$(60)&CHR\$(125)&C HR\$(255)&CHR\$(125)&CHR\$(60)& CHR\$(28)&CHR\$(12)&CHR\$(4)&CH R\$(0)&" 1: GUTU 330 ! XMAS TREE

270 B\$=H\$ :: GOTO 330 ! HEAR

280 B\$=K\$&RPT\$(CHR\$(6),2)&RP
T\$(CHR\$(14),2)&RPT\$(CHR\$(252),2)&RPT\$(CHR\$(64),2)&RPT\$(CHR\$(64),2)&RPT\$(CHR\$(66

290 B\$=K\$&RPT\$(CHR\$(0),2)&RP
T\$(CHR\$(38),2)&RPT\$(CHR\$(76),2)&RPT\$(CHR\$(248),2)&RPT\$(CHR\$(70),2)&RPT\$(CHR\$(66),2)&
" ":: GOTO 330 ! WALKER

300 B\*=CHR\*(34)&" \* :: GOTO 330 ! DOLLAR SIGN

310 B\$=CHR\$(42)&" " :: GBT0 330 ! ASTERISK

320 B\$=K\$&CHR\$(60)&CHR\$(66)&

CHR\$(66)&CHR\$(137)&CHR\$(165) &CHR\$(133)&CHR\$(133)&CHR\$(16 5)&CHR\$(137)&CHR\$(66)&CHR\$(6 6)&CHR\$(60)&" ":: GOTO 330 ! HAPPY FACE

330 DISPLAY AT(13,2): "RECIPI ENT? (12 CHAR'S MAX)" :: DIS PLAY AT(14,2):R\$ :: ACCEPT A T(14,2)BEEP SIZE(-13):R\$

340 RR\$=RPT\$(" ",(12-LEN(R\$))/2)&R\$&RPT\$(" ",(13-LEN(R\$))/2)

350 N\$=CHR\$(27)&"W1"&RR\$&CHR \$(27)&"W0"

360 DISPLAY AT(16,2): "FROM? (25 CHARACTERS MAX)" :: DISP LAY AT(17,2): 6\* :: ACCEPT AT (17,2) BEEP SIZE(-25): 6\*

370 GG\$=RPT\$(" ",(29-LEN(G\$))/2)&G\$&RPT\$(" ",(30-LEN(G\$))/2)

380 DISPLAY AT(19,2): "NUMBER OF LABELS TO PRINT?" :: DIS PLAY AT(20,2): "1" :: ACCEPT AT(20,2)BEEP SIZE(-2): Q

390 DISPLAY AT(22,2)BEEP: "AL IGN LABEL": " PRESS ENTER TO PRINT": " PRESS ""R"" TO REDO

400 FOR D=1 TO 50 :: NEXT D

410 CALL KEY(0,K,S):: IF K=1 3 OR K=82 THEN 420 ELSE 410

420 IF K=82 THEN 190

430 FOR I=1 TO W

440 PRINT #1:RPT\*(B\*,4);DD\*; RPT\*(B\*,4);CHR\*(13);CHR\*(10)

450 PRINT #1:8\$; "To: "; N\$; " "
; B\$; CHR\$(13); CHR\$(10)

450 PRINT #1:B\$;" WITH "
:H\$:"LOVE ":H\$:" FROM "
:B\$:CHR\$(13):CHR\$(10)

470 PRINT #1:B\$;6G\$;B\$;CHR\$(
13);CHR\$(10)

480 PRINT #1:RPT\$(B\$,10);RPT \$(B\$,7);CHR\$(13);CHR\$(10)

490 PRINT #1:CHR\$(13);CHR\$(1 0):: NEXT I :: GOTO 190