BILLBOARD MAKER BILLBOARD MAKER
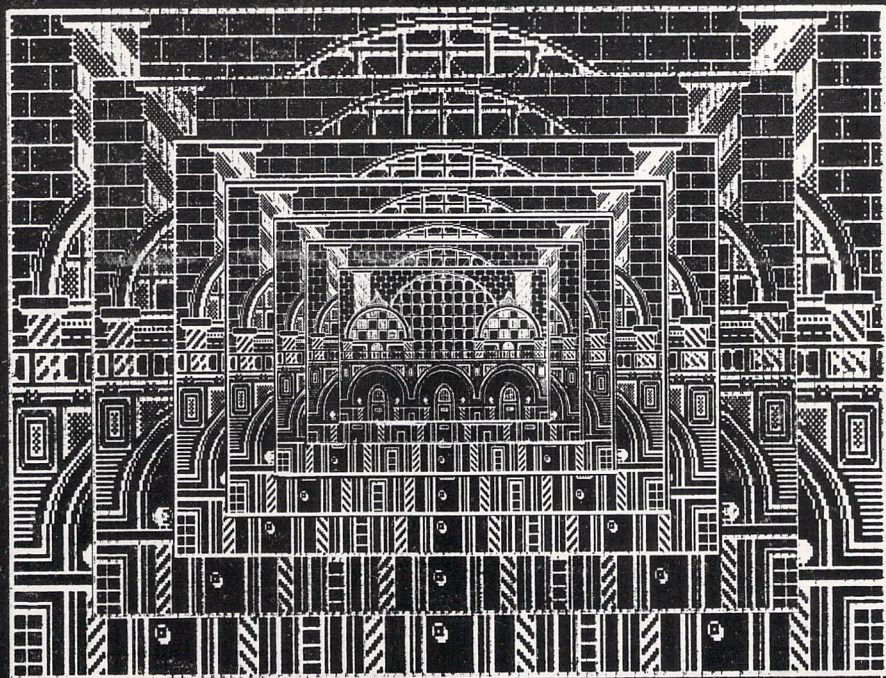# BILLBOARD MAKER BILLBOARD MAKER
BILLBOARD MAKER BILLBOARD MAKER

BLOWS UP YOUR
COMPUTER GENERATED GRAPHICS
TO BILLBOARD
SIZE

solutions ʃunlimited

BILLBOARD MAKER

BILLBOARD MAKER © 1985 SOLUTION UNLIMITED, INC.

solutions unlimited

ACKNOWLEDGEMENTS

Our special thanks to Frank Viola for the musical adaptation, Mike Anstett, Troy Ganzer and Larry Gulley for their assistance, encouragement and support.

This product is dedicated to *William Plank* without whose name this product would not be possible.

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Solutions Unlimited Inc. will provide one back-up of BILLBOARD MAKER. To order, mail $10 (check or Money Order) and an ORIGINAL PROOF OF PURCHASE to;

> SOLUTIONS UNLIMITED INC.
> P.O. BOX 177
> DOBBS FERRY, NEW YORK 10522-0177

WHAT IS BILLBOARD MAKER?

BILLBOARD MAKER is a sophisticated graphic product that allows a user to enlarge existing graphic drawings to high quality signs, posters or extrodinary murals!!!! It has the capability of expanding graphic images generated by Doodle, Koala, Flexidraw, Animation Station, Super Sketch, Blazing Paddles, The Print Shop and Computer Eyes. No longer are your grahic masterpieces limited to the standard 8 1/2" by 11 " hardcopy format.

HOW GOOD IS THE QUALITY OF THE ENLARGEMENT?

Utilizing the special BILLBOARD MAKER graphic OPTIMIZER you will be amazed at the smoothing effect it has on the expanded hi-res picture! No other product has this capability. Also, you can alter already enlarged pictures with additional details never before available on your Commodore 64.

ARE THERE ANY ADDITIONAL FEATURES?

Many, and here they are:

Picture Framing - You can select from a group of different types of frames to complement your picture.

Picture Cropping - You can center or offset your picture in the frame for just the right positioning effect.

Text overlays - you can overlay your picture with text using up to 5 font styles available.

Negative Invert Option - Hi-res black on white can be inverted to white on black for those special effects!!

Flip Invert Option - Flip over your picture for iron on applications requiring inverted lettering.

Upsidedown - Turn your computer images upside down for that special effect needed in your own programs.

Standard Print Dump - This option allows you to review a hardcopy of your picture before enlarging it.

HOW CAN MY 8 1/2" WIDE PRINTER DO THIS?

BILLBOARD MAKER'S specially designed auto/link routine allows the enlarged picture to be linked together automatically. This feature will output your enlarged picture in strips therefore minimizing manual splicing and assuring you of exact picture reproduction in your enlargement.

WHAT USES DOES BILLBOARD MAKER HAVE?

True Sign and Poster Making - You will have the ability of generating high quality signs and posters for home, business and school applications. You can review and modify the standard hardcopy and then generate a perfect ENLARGEMENT!

Decoration - The quality of the enlargement will offer you a new medium for art and painting never before available!

Drafting - you will be able to expand your computerized layout to table size for presentation work!

Life Size Photo Representation - Using Computer Eyes you can enlarge a person to a full life size image!!

The Sky's the Limit - Considering the power of BILLBOARD MAKER the actual usages in the home, education and business environments are seemingly limitless. After using our product and discovering the applications they enhance please drop us a line and let us know about them.

You now own a system that can do some very amazing
things with computer graphics. You also have a way of
converting these pictures to other formats (*BULLETIN
BOARD*). For example, you can now convert a Print Shop
picture into a Doodle picture or vice versa. You can
also convert any image into a BILLBOARD MAKER format
which will, allow you to use your picture in your own
BASIC and ML programs(*CONTROLLER BOARD*). Check the
HINTS section of this manual for what different
techniques have to offer.

Please read this manual carefully. The product has
been designed to allow extremely fast and accurate
control of the program. The entire system (ALL MODULES
OF BILLBOARD MAKER) are in memory at the same time.
The only disk access after the initial load will be to
load and save particular pictures or to load different
types of frames or fonts. The system takes up over 63K
of internal memory and works with up to 4 Hi-res
pictures in memory at one time.

We have designed what we feel to be a unique,
controlable operating menu. This design concept moves
choices through the menu selection areas enabling you
to scan through them very rapidly. This ONE menu took
great pains in designing so that the product was highly
functional while allowing the user flexability and ease
of use.

The Typesetter feature will allow you to overlay
pictures with different font styles. Now you have the
ability of making true signs for many different types
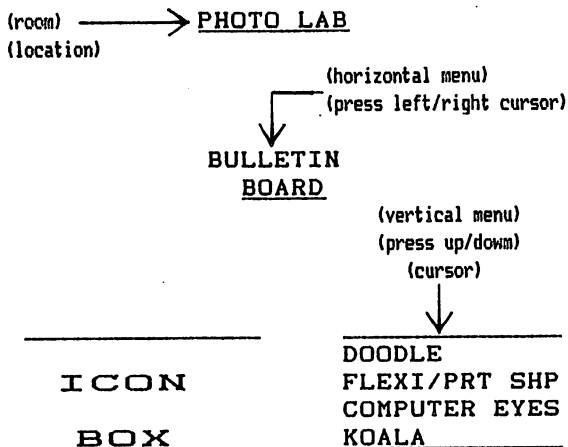of applications.

You will be able to select different types of borders
for your art and then be able to crop the picture
inside the frame so that the subject is positioned
exactly the way you want it!

One of the most advanced features of BILLBOARD MAKER is the OPTIMIZER. The major drawback in enlarging a Hi-res graphic picture is that in the enlarging process the ragged lines of the computer art are magnified and the result is most times undesireable. Although the picture is bigger you must view it at a distance to appreciate the technique. Well, that problem has been overcome with the OPTIMIZER. This feature will allow you to automatically enhance and smooth out those ragged edges and take a 320 by 200 pixel computer image to a 640 by 400 enlarged hardcopy resolution. The MURAL size picture will double that again offering a 1280 by 800 enlarged hardcopy resolution. What this means is clear, quality art that can be appreciated up close as well as at a distance. The logic of the optimizer has been designed to take into account various fill patterns and will not over-optimize sections of the art that require certain highlighting drawn in by the artist. The function is fully automatic and can save many hours of detailing that often accompanies enlargement processing.

One final note about detailing. Each enlarged section of art becomes a stand alone file which can be brought into the product format you have chosen. Being that the picture section is now either 1/4 or 1/16 of the original you can add incredible detail to enlarged sections. Things like blades of grass or bark on trees now become easily attainable! Check the HINT Section for details.

That's about it as far as concepts and features. Welcome to the BILLBOARD MAKER system. Let's move on to the operation of the BILLBOARD MAKER, the Ultimate Graphic Utility.

MAKING A CHOICE

(room) ————————→ <u>PHOTO LAB</u>
(location)

                      (horizontal menu)
                  ⌐ (press left/right cursor)
              ↓
          <u>BULLETIN
BOARD</u>

                  (vertical menu)
                  (press up/down)
                    (cursor)
                     ↓

	DOODLE
ICON	FLEXI/PRT SHP
	COMPUTER EYES
BOX	<u>KOALA</u>

In the top box of the operating menu you will see the room where you are now located. The system starts by placing you in the *PHOTO LAB*. You can enter the other rooms by using the horizontal menu and selecting the *SWITCH BOARD* which will give you a vertical menu choice of the additional rooms available. All choices are selected using the cursor functions. Execution is accomplished by pressing the *RETURN* key. After making the choice you can move to another horizontal menu item and BILLBOARD MAKER will remember your selection. Therefore you can set the vertical menus without pressing the *RETURN* key and move to the next horizontal menu item to pre-set all requirements prior to execution. Certain additional input may be required, such as a file name to save, or a DOS command. These input prompts will appear in the *ICON BOX* and the *INPUT LINE* located on the bottom of the main BILLBOARD. Take some time to get used to the menu operation. This feature has been developed to allow you great flexibility, speed and ease of use.

ABOUT THE ROOMS

There are three different rooms in the BILLBOARD MAKER. In each room you are able to perform different types of functions to your art work. When the system first starts you will find yourself in the *PHOTO LAB*. By pressing the left/right cursor you will scroll across the horizontal menu to view the different selections that are available. The PHOTO LAB offers you a choice of 6 different horizonal operations. As in a real PHOTO LAB , you will be able to work with your picture by enlarging, framing, flipping, creating negatives and much more!!! The *TYPESETTER* room allows you the capability of overlaying your picture with text and icons. It works just like a real typesetter!! With it you can create very attractive signs or posters of your original art. Finally there's the *PRINTING PRESS*. In this room you will operate your printer to reproduce the art work you have prepared in the other 2 rooms. You can go from one room to another by simply moving the <u>horizontal menu with the left/right cursor</u> to SWITCH BOARD , selecting the room you wish to enter on the <u>vertical menu with the up/down cursor</u> and pressing the *RETURN* key. As you pass through horizontal choices note that the ICON BOX shows different pictures describing the process that takes place!! Notice that the selections you make on the vertical menus are set at what they were last. This feature allows you to pre-set certain choices so re-setting is not necessary. Changing rooms also causes *TEXT* colors on the main menu to change for quick reference. Now take some time to go from room to room and get a feel for what the product can do!! The manual has been divided into *3 CHAPTERS* , one for each of the *3 ROOMS* in BILLBOARD MAKER. Let's get started making a BILLBOARD.

Turn on your:

> Printer
> 1541 Drive
> Commodore 64
> Monitor

If using a printer other then a Commodore make sure the interface line feed switch is OFF. Load the printer with paper and set to top of form.

Place the BILLBOARD DISK in disk drive and type:

> LOAD ":*",8,1 <RETURN>

After a few moments the screen will turn white and the opening screen will start. You can bypass the opening credits by pressing the RUN/STOP key. After the opening credits the screen will turn BLACK and the loading procedure will continue. When it's finished the menu will appear and you are ready to use the BILLBOARD MAKER.

BILLBOARD MAKER is compatible with FAST LOAD © Epyx. Some early vintage 1541 drives may require you to turn them OFF and then ON again after loading the program if using the FAST LOAD cartridge and BILLBOARD MAKER.

Remember that BILLBOARD MAKER uses over 63,000 bytes of memory to operate. Make sure your machine is in good operating condition and your disk drive is in alignment.

BILLBOARD MAKER

TABLE OF CONTENTS

CHAPTER ONE

THE PHOTO LAB
ROOM

(room) ———————→ *PHOTO LAB*
(location)

                              (horizontal menu)
                              (press left/right cursor)
                          ↓
                    BULLETIN
                    BOARD

                              (vertical menu)
                              (press up/down)
                              (cursor)
                          ↓

_____   _____
                        DOODLE
    ICON   *FLEXI/PRT SHP*
                        COMPUTER EYES
    BOX   *KOALA*
                        _____
_____

BULLETIN BOARD allows you to load a pre-drawn picture
file into BILLBOARD MAKER. By moving the up/down
cursor across the vertical menu you can choose the
product that was used to create your picture. Press
the *RETURN* key to make selection and a prompt in the
ICON BOX will request that you put the appropriate disk
in the disk drive. After the disk has been put in the
drive press *RETURN* again and BILLBOARD MAKER will look
on the disk for all files that were created by the
product you had specified in the vertical menu. The
files found will be displayed on the bottom of the menu
one at a time. In order to look at the name of each
picture file press the *down cursor key.* When you
finally reach the picture you wish to load simply press
the *RETURN* key and the system will load the picture
into memory. The picture will be displayed and there
will be a prompt at the top of the picture stating *SET
ORIG.* At this point you must answer with a "Y" or "N".
If you answer "Y" the picture becomes permanent in
memory and becomes your working copy. If you answer
"N" the picture will be erased and whatever was in
memory prior to the load will remain. You can use this
feature to check different pictures on the disk without
losing the working copy you have in memory. Attempting
to load a picture file will erase both the current font
and the overlay plate in memory.

(room) ──────→ *PHOTO LAB*
(location)

                    ┌─ (horizontal menu)
                    │ (press left/right cursor)
                    ↓
              IRONING
              BOARD
                        (vertical menu)
                        (press up/down)
                        (cursor)
                           ↓
   ─────────────   ─────────────
                          FLIP INVERT
      ICON   *UPSIDEDOWN*
                          NEG. IMAGE
      BOX   *STRIP COL*_____

   ─────────────

IRONING BOARD - allows you to "iron out" the changes
you may want to make to your original. Simply choose
what you want to do in the vertical menu with the
up/down cursor.

FLIP INVERT - Take your picture and reverse it from
left to right.   After you choose this function press
RETURN key and watch your original *FLIP* over. This is
particularly handy for iron-on applications where you
will need reverse text in order to iron-on correctly.

UPSIDEDOWN - Simply press the *RETURN* key and the
picture in memory will do exactly that!

NEG. IMAGE - Press the *RETURN* key after you have chosen
it and watch what happens!! It will change the art
from black on white to white on black. This feature
works well with HI-RES pictures that have been color
stripped. Using *NEG. IMAGE* on hi-res color pictures
will often times give you a strange color bleeding.

STRIP COLOR - This function removes all color from a
HI-RES COLOR PICTURE . It sets the picture to a pure
black and white working copy. Simply make your choice
on the vertical menu and press RETURN key. Use it for
poster and sign making where BLACK and WHITE will give
you best results.

After BILLBOARD MAKER performs any *IRONING BOARD*
operation, you will be requested to *SET ORIG.* Answer
"Y" to make the change permanent in memory.

NOTE: NEG. IMAGE AND STRIP COLOR ONLY WORK WITH <u>HI-RES</u>
<u>ORIGINALS.</u>

(room) ——————→ _PHOTO LAB_
(location)

                              (horizontal menu)
                              (press left/right cursor)
                        ↓
              POSTER
              BOARD

                              (vertical menu)
                              (press up/down)
                              (cursor)
                                ↓
    _____   _____

        I C O N   STANDARD SIZE
                             SIGN SIZE
        B O X   MURAL SIZE
                             _____
    _____

POSTER BOARD - permits you to select the size of your
reproduction.   You can chose from _STANDARD SIZE_ printer
dumps, _SIGN SIZE_ dumps (4 times normal) and _MURAL SIZE_
dumps (16 times normal).   It is not necessary to press
RETURN key after making your size selection. The
system will check to see what size you have chosen when
you _SAVE_ your picture.   There are many ways of creating
infinite size reproductions.   Check the _HINTS_ section
of this manual.

(room) ─────────> *PHOTO LAB*
(location)

                            (horizontal menu)
                    ┐   (press left/right cursor)
                    ↓
            CUTTING
            BOARD

                            (vertical menu)
                            (press up/down)
                            (cursor)
                                ↓
─────────────────   ─────────────────
                        STANDARD
    ICON   *WOOD*
                        3-D
    BOX   *LACE*
                        ─────────────────

─────────────────

CUTTING BOARD - allows you to do some great things to
your working copy. You will find a selection of
FRAMES in the vertical menu box. These frames will
overlay your working copy. Each frame is different and
each will give your picture a different effect. The
FRAME DISK choice is for future frames that will be
released. After picking a frame you will see the
working copy with the frame overlay on it. The image
of the frame will be somewhat distorted but you can
view the relative position of your art in relationship
to the frame. NOW for some MAGIC! Press *"B"* for a
black and white picture or *"C"* for color followed by
up/down or left/right cursor and see what happens.
Your entire picture will slide under the frame allowing
you to position it exactly the way you want it!! You
can CROP your picture in this manner and in case you
make a mistake press *"O"* (the letter *"O"* not the
numeric zero) for the Original position before you
started moving the picture around. When you are
satisfied with the picture press the *RETURN* key. You'll
be prompted with *SET ORIG* If you wish to try another
frame answer *"N"* and the original picture will become
your working copy. At that point choose another frame
and repeat the process of cropping.

```
(room) ──────────> PHOTO LAB
(location)

                              (horizontal menu)
                          ┌── (press left/right cursor)
                          ↓
                      CLIP
                      BOARD

                              (vertical menu)
                              (press up/down)
                                 (cursor)
                                    ↓

_____          _____
                         OPTIMIZER  Y
    ICON                 DOS COMMANDS
                         FORMAT:  ID
    BOX                  SAVE
_____          _____
```

CLIP BOARD - lets you perform a small miracle on your
enlarged work with the special feature called the
OPTIMIZER .   Make your choice in the vertical menu and
press *RETURN* key to activate ("Y") or de-activate ("N")
the   *OPTIMIZER.*   To better understand exactly what the
OPTIMIZER   does,   read   the   section   *"THE INCREDIBLE
OPTIMIZER"* in this manual.

The   *DOS COMMANDS* are accessed by pressing the *RETURN*
key after you have selected them from the vertical
menu.   At   that   point   you will be able to enter the
command you require on the bottom of the screen.   You
DO NOT need quotes. They are automatically supplied by
the system.   ALL STANDARD DOS COMMANDS ARE SUPPORTED.
(Check your Commodore 1541 users manual for available
DOS   commands).   A   simple RETURN will read error
channel.

FORMAT: - allows you to save your original picture in
memory OR save an enlarged section file under the same
ID.   Sound   confussing?   Well let's examine how
BILLBOARD MAKER saves it's files!   If you wish to
simply save a picture in memory to disk in standard
size you would select the *FORMAT:* and press the *RETURN*
key so that   *ORIG*   appears alongside of the FORMAT
selection.   Now any save you perform will create a
standard   size picture of the file that is your
original.   If you wish to enlarge your original you
must select the *FORMAT:* and press the *RETURN* key so
that. *ID* appears alongside of the FORMAT selection.
Make sure that the *POSTER BOARD* selection has been set
to the size you require.   When you decide to perform
the actual save the BILLBOARD MAKER will now be pre-set
to save enlagement sections of the original.

The *SAVE* function allows you to save your picture to disk in its' standard or enlarged form. BILLBOARD MAKER will now request you to enter the file name you wish to name the file. If you wish to abort the SAVE delete everything between quotes and press RETURN. Remember the BULLETIN BOARD choice you have selected? The nice feature is that you can change the selection in the BULLETIN BOARD menu to a different output product format (eg. DOODLE or maybe FLEXI) so that although the picture you are working on was not DOODLE originally it can be converted to that format easily by changing the vertical menu choice before saving.

If you have activated the OPTIMIZER saving will take longer then with it de-activated. You will be able to watch the OPTIMIZER in action as it smooths out the enlargement before your very eyes!!! See *CONVERSION TECHNIQUES.*

```
(room) ─────────▶ PHOTO LAB
(location)

                      (horizontal menu)
                  ┌───(press left/right cursor)
                  │
                  ▼
              SWITCH
              BOARD
                        (vertical menu)
                        (press up/down)
                          (cursor)

                            ▼
    _____    _____

      ICON               PHOTO LAB
                         TYPESETTER
      BOX                PRNTING PRESS
                         _____
    _____
```
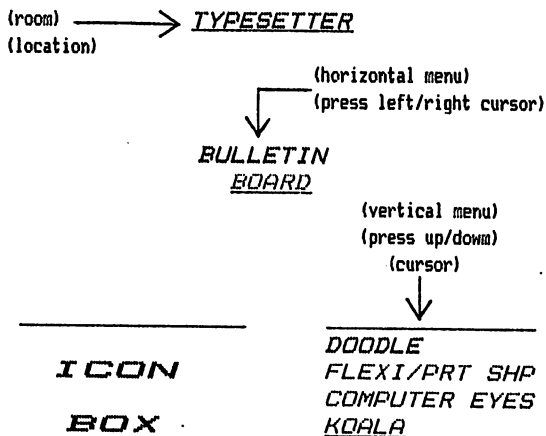
SWITCH BOARD allows you to access another room in
BILLBOARD MAKER. Simply select the room you wish to go
to in the vertical menu and press the *RETURN* to go
there. It couldn't be easier! When using the *SWITCH
BOARD* you will loose your font in *TYPESETTER* or the *I.
D.* file in *PRINTING PRESS*.

CHAPTER TWO

THE TYPESETTER ROOM

(room) ————————> _TYPESETTER_
(location)

```
        ┌──────────  (horizontal menu)
        │            (press left/right cursor)
        ▼
    BULLETIN
    BOARD
```

(vertical menu)
(press up/down)
(cursor)

```
        ▼
```

$\mathbf{I}\mathbf{CON}$	_DOODLE_
	FLEXI/PRT SHP
$\mathbf{BOX}$	_COMPUTER EYES_
	KOALA

BULLETIN BOARD allows you to load a pre-drawn picture
file into BILLBOARD MAKER. By moving the up/down
cursor across the vertical menu you can choose the
product that was used to create your picture. Press
the _RETURN_ key to make selection and a prompt in the
ICON BOX will request that you put the appropriate disk
in the disk drive. After the disk has been put in the
drive press _RETURN_ again and BILLBOARD MAKER will look
on the disk for all files that were created by the
product you had specified in the vertical menu. The
files found will be displayed on the bottom of the menu
one at a time. In order to look at the name of each
picture file press the _down cursor key._ When you
finally reach the picture you wish to load simply press
the _RETURN_ key and the system will load the picture
into memory. The picture will be displayed and there
will be a prompt at the top of the picture stating _SET_
ORIG. At this point you must answer with a "Y" or "N".
If you answer "Y" the picture becomes permanent in
memory and becomes your working copy. If you answer
"N" the picture will be erased and whatever was in
memory prior to the load will remain. You can use this
feature to check different pictures on the disk without
losing the working copy you have in memory. Attempting
to load a picture file will erase both the current font
and the overlay plate in memory.

(room) ————————> *TYPESETTER*
(location)

                        (horizontal menu)
                    ┌─ (press left/right cursor)
                    ↓
          BLACK
          BOARD
                        (vertical menu)
                        (press up/down)
                          (cursor)
                            ↓

    ─────────────────   ─────────────────
                           NEWSPAPER
      ICON   *SPACE*
                           STENCIL
      BOX   *NUMBERS/PATTS*

    ─────────────────

The vertical menu now offers you a selection of
different FONTS   to overlay your working copy. As
usual, position the cursor in the vertical menu box
with the up/down cursor. After you make your selection
press RETURN   and the font style you selected will be
loaded into memory (be sure your program disk is in the
drive--that's where the font files are).   When a FONT
is successfully loaded the border of the screen will
turn GREEN.   Remember that you can use different fonts
on the same picture. Mix and match the styles in your
own creative way!!   The FONT DISK option is reserved
for future fonA disk releases. See the *THE AMAZING
TYPESETTER* section of this manual.

(horizontal menu)
(press left/right cursor)

KEY
BOARD

(vertical menu)
(press up/down)
(cursor)

⬇

MODIFY PLATE
COLOR:OFF
TYPE:SOLID
OVERLAY PLATE

I C O N

B O X

The *KEY BOARD* offers you the ability of creating
attractive signs and effects that are totally under
your control. Check *THE AMAZING TYPESETTER* section of
this manual for techniques that will enhance your
pictures. For now let's take a look at the primary
functions.

MODIFY PLATE (border must be GREEN to access) - After
you have loaded the necessary FONT the *MODIFY PLATE*
choice will allow you to work with that font. The
MODIFY PLATE section of the *TYPESETTER* works with 2
PLATES, the FONT PLATE and the LAYOUT PLATE. When you
select the *MODIFY PLATE* and press the *RETURN* key you
will be sent to the FONT PLATE. There you will see the
letters or patterns you have selected for use. In the
center of the screen will be a CAPTURE BOX. The size
of the CAPTURE BOX can be changed by pressing the F1,
F3, F5 or F7 keys. Position the CAPTURE BOX over the
letter or pattern you wish to select by using the
UP/DOWN, LEFT/RIGHT CURSOR keys. When you have
completed the selection, press the *RETURN* key and the
CAPTURE BOX will pick up the letter and move you to the
center of the LAYOUT PLATE. Again using the CURSOR
keys position the letter where you want it and press
the *RETURN* key to place it down. If you press the *"T"*
key all placement of the letter will be in the TOGGLE
mode. The TOGGLE mode will erase anything under the
letter when it places it down. If you press the *"P"*
key you will be in the PERMANENT mode and the placement
of the letter will be directly on top of what ever is
there. Try it out and see the difference!! You can
change the GRID lines that appear over the LAYOUT PLATE
by pressing the number keys 1, 2 or 3. This grid is u
ed to assist you in positioning.

There are some additional keys active while working on the LAYOUT PLATE that allow more control over your art work. The *"I"(up)*, *"M"(down)*, *"J"(left) and "K"(right)* will allow you to move the letter or pattern in the CAPTURE BOX one pixel in the direction noted. This feature will allow you to better space your work. If you hold the *SHIFT KEY* down when you press *"I","M","J"* or *"K"* key the entire LAYOUT PLATE will move in the directions noted. Holding the *COMMODORE KEY* down while pressing the *"I","M","J"* or *"K"* key will move the entire LAYOUT PLATE 8 pixels at a time in the direction noted. Pressing the *DEL* key will erase anything under the CAPTURE BOX and the *SHIFT/CLR* will erase the entire LAYOUT PLATE. In addition you can view the *ORIG* picture in memory by pressing the *F8(shift F7)* key. This is handy to check placement of text over your original before completing the OVERLAY process. There is one more additional key that creates some incredible effects. The *UP ARROW(the key directly to the left of the RESTORE key)* key can exchange the FONT PLATE with the LAYOUT PLATE. For more information on this and the CTRL F process see *THE AMAZING TYPESETTER* section of this manual.

COLOR: - After making this selection simply press the *RETURN* key to change the color required. COLOR: OFF tells BILLBOARD MAKER to use the color of the picture as a letter or pattern color. All other color choices <u>default the entire picture to the color of the OVERLAY text.</u>

TYPE:SOLID - By pressing the *RETURN* key when selected you can chose the TYPE of letter that will be placed on your ORIGINAL.

OVERLAY PLATE - After selecting this choice from the vertical menu BILLBOARD MAKER will blank the screen and take your LAYOUT PLATE and place it on top of your ORIGINAL. When the process is completed you will be shown your new creation and asked if you wish to *SET ORIG* . If you answer *"Y"* you will create a new ORIGINAL. If you respond with a *"N"* the OVERLAY WILL NOT BECOME PERMANENT and you can go back to the *MODIFYPLATE* option to make corrections.

Play with the *KEY BOARD* section of the *TYPESETTER* to better understand the POWER of these features. The *KEY BOARD* feature does NOT assume what the LAYOUT should look like. It allows you FULL CONTROL of the art you are developing.

```
(room) ————————➤  TYPESETTER
(location)

                              (horizontal menu)
                           ┌──(press left/right cursor)
                           │
                           ▼
                    SWITCH
                    BOARD
                                  (vertical menu)
                                  (press up/down)
                                     (cursor)
                                        │
                                        ▼
     ───────────────         ───────────────
                             PHOTO LAB
        ICON                 TYPESETTER
                             PRNTING PRESS
        BOX                  ───────────────

     ───────────────
```

SWITCH BOARD allows you to access another room in
BILLBOARD MAKER. Simply select the room you wish to go
to in the vertical menu and press the RETURN to go
there. It couldn't be easier! When using the SWITCH
BOARD you will loose your font in TYPESETTER or the I.
D. file in PRINTING PRESS.

CHAPTER THREE

THE PRINTING PRESS ROOM

```
(room) ────> PRINTING PRESS
(location)
                              (horizontal menu)
                          ┌─────(press left/right cursor)
                          │
                          ▼
                    BULLETIN
                     BOARD
                              (vertical menu)
                              (press up/down)
                                (cursor)
                                   ▼
    ─────────────────      ─────────────────
                            LOAD ID FILE
      I C O N               PRINT ALL
                            ROW      1
      B O X                 COLUMN  A
                            ─────────────────
    ─────────────────
```

BULLETIN BOARD allows you to load an ID CONTROL FILE
into BILLBOARD MAKER . The BULLETIN BOARD in the
PRINTING PRESS room loads ONLY the *ID CONTROL FILE*
generated by the ENLARGEMENT process. If you have
chosen an enlargement and selected the ID function of
FORMAT the file name you entered during the SAVE is
your ID CONTROL FILE. This ID CONTROL FILE name is the
one you enter in order to print the enlargement on your
printer.

After inserting the correct disk in the drive press
RETURN and BILLBOARD MAKER will look on the disk for
all *ID CONTROL FILES* that were created by BILLBOARD
MAKER. The files found will be displayed on the bottom
of the menu one at a time. In order to look at them
press the *down cursor key.* When you finally reach the
ID CONTROL FILES you want simply press the *RETURN* key
and the system will load the *ID CONTROL FILE* into
memory. *YOU CANNOT VIEW AN ID CONTROL FILE.* This file
is used by BILLBOARD MAKER to load in appropriate
sections of the enlargement and link those pictures
correctly for proper printer output. See *CONVERSION
TECHNIQUES* in this manual for further information.

After BILLBOARD MAKER loads the *ID CONTROL FILE* the
screen border will change to *PURPLE* and will move you
to the *CIRCUIT BOARD* automatically. The purpose for
the *PRINT ALL* selection is to allow you to print ALL or
ONE of the elargement sections. Make your choice in
the vertical menu and press the *RETURN* key and set the
choice to ALL or ONE.

You can select ROW or COLUMN and select only ONE of the
enlargement sections for printing.   BILLBOARD MAKER
maintains its enlargement files in the following way.

SIGN SIZE SAVES AS:

Each section will become it's own file
Therefore:
  section 1 =   FILENAME   1A
  section 2 =   FILENAME   1B
  section 3 =   FILENAME   2A
  section 4 =   FILENAME   2B

  ID CONTROL FILE = FILENAME

          COL A   COL B   COL C   COL D

          1   2
ROW 1 section section
          3   4
ROW 2 section section

ROW 3

ROW 4
    MURAL SIZE SAVES AS:

Each section will become it's own file
Therefore:
  section 1 =   FILENAME   1A
  section 2 =   FILENAME   1B
    etc. "   "
  section 16 =   FILENAME   4D

  ID CONTROL FILE = FILENAME

          COL A   COL B   COL C   COL D

          1   2   3   4
ROW 1 section section section section
          5   6   7   8
ROW 2 section section section section
          9   10   11   12
ROW 3 section section section section
         13   14   15   16
ROW 4 section section section section

(room) ———> *PRINTING PRESS*
(location)

(horizontal menu)
(press left/right cursor)

↓

CIRCUIT
BOARD

(vertical menu)
(press up/down)
(cursor)

↓

	OKIDATA
ICON	*STAR*
	EPSON
BOX	*PANASONIC*

The CIRCUIT BOARD function gives you the capability of selecting the type of printer you are using. Make your choice with the up/down cursor.

If you have selected an ID CONTROL FILE in the BULLETIN BOARD section of the PRINTING PRESS room you will begin to print the enlargement when you press the RETURN. This enlargement printing will automatically show you the section to be printed on the screen while the printer re-creates the image. All linking of enlarged sections is done AUTOMATICALLY . Depending on your enlargement SAVE the printer will create either 2 strips of 2 connected picture enlargements or 4 strips of 4 connected picture enlargements. Printing can be ABORTED at any time by pressing the RUN/STOP key. A special feature has been added to make a quick standard dump of a picture. If you have made NO ID CONTROL FILE selection from the BULLETIN BOARD section of the PRINTING PRESS room you can simply press the RETURN and the printer will print a standard size picture of your working copy (the picture in memory you've been working on!!). This is handy to check your shading and new creative art work before using the enlarging process!!

DO NOT OVERWORK YOUR PRINTER!! PRESSING THE SPACE BAR DURING THE PRINTER DUMP WILL PAUSE THE PRINTING AND ALLOW A COOLING DOWN OF THE PRINTER HEAD. WHEN YOU ARE READY TO CONTINUE PRESS THE SPACE BAR AGAIN AND THE PRINTER WILL CONTINUE EXACTLY WHERE IT LEFT OFF!!! REMEMBER THE PRINTER WORKS HARDEST ON HIGH DENSITY OUTPUT (LARGE AMOUNTS OF DARK AREAS IN THE PICTURE REPRODUCTION). ON SOME PRINTERS A THERMAL PROTECTION DEVICE WILL STOP PRINTING UNTIL HEAT IS REDUCED. THE PROGRAM WILL WAIT FOR THE PRINTER TO COOL DOWN AND WILL NOT CRASH!! Please read PRINTER CARE section of this manual for further advice.

```
(room) ────────▷  PRINTING PRESS
(location)
                                (horizontal menu)
                          ┌──  (press left/right cursor)
                          │
                          ▽
                    SWITCH
                    BOARD
                                (vertical menu)
                                (press up/down)
                                   (cursor)

                                      ▽
   ─────────────────        ─────────────────
                            PHOTO LAB
       I CON                TYPESETTER
                            PRNTING PRESS
        BOX                 ─────────────────


   ─────────────────
```

 SWITCH BOARD allows you to access another room in
BILLBOARD MAKER. Simply select the room you wish to go
to in the vertical menu and press the *RETURN* to go
there. It couldn't be easier! When using the *SWITCH
BOARD* you will loose your font in *TYPESETTER* or the *I.
D.* file in *PRINTING PRESS.*

When BILLBOARD MAKER was originally conceived the
enlargement process was a dramatic effect but yet our
staff felt the need to improve on this capability.
Graphic representation of a computer picture on a dot
matrix printer has always simply been the STANDARD
SCREEN DUMP proceedure. The picture in memory was
reproduced by the printer, pixel (dot) by pixel. Well,
as you now know, BILLBOARD MAKER enlarges your
computer art and allows you to create your own
"BILLBOARDS". When a computer graphic picture is
magnified, each dot on the screen (pixel) is multiplied
by the size factor used to create the enlargement. In
the case of a SIGN SIZE enlargement your original
picture is magnified to 4 (size factor) times it's
original size. BILLBOARD MAKER divides the original
into 4 sections then takes each pixel in each section
and creates 4 pixels for every one found. After the
enlargement procedure is complete each of the 4
sections are saved to the disk as their own picture
file in the format you choose. BILLBOARD MAKER
automates the enlargement process, file saving and
printer linking for you. This was still not enough to
make the product incredible!! When the enlargement of
a section occurs there is room to improve the
picture!!! Now that each pixel has been multiplied by
4 there is room to put additional pixels in the
enlargement section to SMOOTH the lines and designs of
the drawing. Taking what has been drawn by you and
enhancing the enlarged results is the function of the
OPTIMIZER. You can now view your enlargement from up
close or far away. The logic of the OPTIMIZER was a
feat in itself. In order to process an enlargement
with the OPTIMIZER simple set the OPTIMIZER to "Y" and
proceed with your enlargement. The OPTIMIZER will take
the enlarged section of the picture and moving from
left the right calculate the position of a pixel and
the coordinates available to add additional pixels to
enhance the art. The OPTIMIZER has been designed to
take fill patterns and details into consideration and
will not over optimize your picture. Due to the
complexity of the job the OPTIMIZER performs it will
take a little time to optimize an enlargement.
Considering the almost impossible task of performing
this function by hand it is well worth it!!!! For
those of you who wish to bypass the OPTIMIZER simply
set the OPTIMIZER function to "N" prior to doing your
save. The OPTIMIZER will not work with MULTI-COLOR
pictures due to the un-uniform way the various
MULTI-COLOR programs create their images.

THE AMAZING TYPESETTER

The TYPESETTER is an amazing room in the BILLBOARD
MAKER system. In it you will be able to create
overlays with the available fonts, patterns and icons
on the BILLBOARD MAKER disk. The TYPESETTER does not
assume positioning but rather allows you a adjust your
LAYOUT to the exact position you require! It offers
you 3 grid guides to assist you in your LAYOUT, micro
and macro movement of your entire LAYOUT PLATE and
micro movement of the TEXT in your CAPTURE BOX. With
these tools you can create your overlay with a degree
of exactness never before available. You can flip
between your layout and your ORIGINAL picture to check
positioning BEFORE making it permanent. By using the
many features of the TYPESETTER you can create a
seemingly infinite range of effects that are all under
your control. Remember, we will be releasing new
FONTS, ICONS, PATTERNS and FRAMES to be used with your
BILLBOARD MAKER. The best is yet to come!

A word of caution regarding your printer. Please DO
NOT mistreat your printer by excessive printing of
BILLBOARD MAKER output. Check your re-worked art by
making a standard size DUMP of it BEFORE enlarging your
work! Check this output and make corrections with the
BILLBOARD MAKER or the graphic product you may have
used to create it. When you are TOTALLY satisfied with
it then create your enlargement.

Work with a few formatted blank disks when saving your
art. You do not want to run out of space on a disk
while enlarging your work. Remember that a SIGN SIZE
enlargement takes approximately 160 blocks of disk
space!! A MURAL SIZE takes almost a FULL disk for
section files!!!! BILLBOARD MAKER has been designed to
be completely automatic. You can therefore insert your
blank disk, start up your enlargement process and let
the program run automatically. The same holds true for
printing **BUT** BILLBOARD MAKER has no way of knowing
whether the paper is jammed or not feeding correctly.
It is also advised that the printer be stopped by
PRESSING THE SPACE BAR occasionally. This will allow
the print head to cool down during an enlarged print
dump. Printing can be aborted by press the RUN/STOP
key at any time. BE SURE THE LINE FEED SWITCH ON YOUR
PRINTER INTERFACE (if you are not using a Commodore
printer) IS TURNED **OFF**. BILLBOARD MAKER controls the
printer and the wrong line feed setting will affect the
picture linking process. After printing your work it
is advised to turn the printer OFF and then ON again in
order that TOP OF FORM control is returned to the
printer.

There are a few things you should know about picture formats. They will be either MULTI-COLOR or HI-RES. Because of the major differences in the format certain operations do not function.

STRIP COLOR and *NEG. IMAGE* DO NOT WORK on MULTI-COLOR pictures.

NEG. IMAGE works best on HI-RES pictures that have had their COLOR STRIPPED.

You can save a HI-RES COLOR STRIPPED picture to a MULTI-COLOR picture format.

Saving a MUTI-COLOR picture format to a HI-RES COLORED picture format (or VICE-VERSA) will give POOR results.

The following is a table of the product and the type of picture it uses.

HI-RES PRODUCTS	MULTI-COLOR PRODUCTS
DOODLE	KOALA
COMPUTER EYES	ANIMATION STATION
FLEXI DRAW	BLAZING PADDLES
PRINT SHOP	SUPER SKETCH
BILLBOARD MAKER	BILLBOARD MAKER

CONTROLLER BOARD

Although *CONTROLLER BOARD* is not on the BILLBOARD MAKER menu, it is your link to using your graphic pictures in your own BASIC and ML programs! If you wonder how BILLBOARD MAKER can display ALL TYPES of file formats so easily then we should explain something about your pictures. Your Hi-Res pictures contain 8K of bit map data and your color Hi-Res pictures contain 2K of color data. Your Multi-color pictures are made up of all that Hi-Res information plus another 2K of extra color data and 1 byte for the screen color. What BILLBOARD MAKER does is convert all three situations into one uniform block that contains all this information. Once in this uniform format it is extremely easy to display any picture. BILLBOARD MAKER gives you this uniform format in the BILLBOARD MAKER file option in *BULLETIN BOARD* . Once you SAVE a picture in this format you are eligible to use the *CONTROLLER BOARD* program to display your own pictures in your own programs.

CONTROLLER BOARD is a simple ML program that has four(4) options:

1. LOAD a BILLBOARD MAKER picture file.

2. DISPLAY a picture.

3. TURN OFF a picture being displayed.

4. SAVE the *CONTROLLER BOARD* program to disk.

To better explain how to use the *CONTROLLER BOARD* we will walk through this example:

Insert your BILLBOARD MAKER disk in the drive and type:
LOAD "CONTROLLER BOARD",8,1 <RETURN>

Type: NEW <RETURN>

Now enter and run this program and watch what happens!

```
10 A$= "BB.FADDED.RUG*":REM set A$ to the picture file
20 SYS 49152:REM load picture using variable last set (A$)
30 SYS 49155:REM turn on the picture
40 GET B$:IF B$ = "" THEN 40:REM wait for key to be pressed
50 SYS 49158:REM turn off the picture
60 END
```

That should get you started. Remember the file you use
MUST BE a BILLBOARD MAKER picture file. To SAVE the
CONTROLLER BOARD onto another disk type SYS49161 after
it has been loaded into memory.

The following information is for you ML Hackers out
there!!

A BILLBOARD MAKER file starts at address $5800

A memory map of the picture is as follows:

$5800 -	$5BFF	Extra color memory
$5000 -	$5FFF	Color memory
$6000 -	$8000	Bit Map
$7F40		FILE TYPE
		(0-Hires/1-Multi)
$7F41		Screen Color
$C000 -	$C600	CONTROLLER BOARD

Remember that the *BILLBOARD MAKER* program resides <u>in</u> <u>memory at all times.</u> The only need to put in the BILLBOARD MAKER disk during operation is to load frames or fonts you wish to use. The following table of keys will help you get started very quickly using the system.

ON SCREEN	KEYS	OPERATIONS PERFORMED
ALL MENUS	cursor up	move vertical up
"	cursor down	move vertical down
"	cursor left	move horizontal left
"	cursor right	move horizontal right
"	shift/CLR HOME	view original
"	RETURN	execute choice
"	CTRL S	toggle sound on/off
TYPESETTER MENU	CTRL F	makes FONT PLATE = LAYOUT PLATE
FONT PLATE	F1, F3, F5, F7	change size of CAPTURE BOX
"	CURSOR KEYS	move CAPTURE BOX
"	RETURN	pick up letter and move to LAYOUT PLATE

ON SCREEN	KEYS	OPERATIONS PERFORMED
LAYOUT PLATE	CURSOR KEYS	Move CAPTURE BOX
	F1, F3, F5, F7	Change size of CAPTURE BOX
"	RETURN	Put down contants of CAPTURE BOX
		MOVE CONTANTS INSIDE CAPTURE BOX
	I	up
	M	down
	J	right
	K	left
"		MOVE LAYOUT SCREEN MICRO MOVEMENT
	SHIFT I	up
	" M	down
	" J	right
	" K	left
"		MOVE LAYOUT SCREEN MACRO MOVEMENT
	COMMODORE I	up
	" M	down
	" J	right
	" K	left
"	1, 2, 3	Change GRID screen
"	UP ARROW	Copy LAYOUT PLATE on FONT PLATE then move copy to LAYOUT PLATE. *BOTH PLATES BECOME IDENTICAL!!*
"	SHIFT/CLR HOME	Clear LAYOUT PLATE
"	DEL	Erase under CAPTURE BOX
"	T	Toggle mode
"	P	Permanent mode
"	Q	Return to FONT PLATE from LAYOUT PLATE
	Q	Return to KEYBOARD from FONT PLATE

Try some of the following neat effects!

Place a pattern down on the LAYOUT PLATE then MICRO
SHIFT the entire LAYOUT PLATE a few pixels. Place the
CAPTURE BOX in permanent mode ("P") and type over the
pattern!

Move the letter in the CAPTURE BOX so that only a small
portion can be seen. Use this for borders.

Clear the LAYOUT PLATE and press the UP ARROW. You now
have the entire font on both the FONT PLATE and the
LAYOUT PLATE. MICRO MOVE the LAYOUT PLATE 2 down and 3
to the right. Now press the UP ARROW key again and
watch what happens.

OVERLAY the ORIGINAL then go back to the LAYOUT PLATE,
MACRO MOVE the plate to another position and OVERLAY
the ORIGINAL again.

OVERLAY ORIGINAL, go to the IRONING BOARD in *PHOTO LAB*
and FLIP INVERT the picture. Now return to the OVERLAY
PLATE function and repeat the overlay process.

THE SECTIONS OF YOUR ENLARGEMENTS CAN HAVE TEXT ADDED
TO THEM!

The sections of your enlargements can be used by your
DOODLE, FLEXI, KOALA, etc. Bring them back into your
graphic programs and add details such as the bark on a
tree or blades of grass. It will give your enlargement
a very professional look.

ATTENTION FLEXIDRAW OWNERS: You can run the utility
"FLEXI TO DOODLE" on the BILLBOARD MAKER program disk
to combine the black and white and color files of the
FLEXI format. This routine will convert the FLEXI
color picture to a single DOODLE color picture and can
be loaded into *BILLBOARD MAKER* as a DOODLE picture.

Always have a few blank disks to work with!!!

Print the ORIGINAL in memory to check out your art
BEFORE you enlarge it.

Enter EXIT TO BASIC in the DOS command prompt to ABORT
BILLBOARD MAKER and return to BASIC.

STANDARD size pictures can be saved with the ID format
and can be auto printed with the ID FILE option in
BULLETIN BOARD of PRINTING PRESS. This way you can
print a picture file without loosing the working copy
in memory.

HEY, ALL YOU ARTISTS!

If you feel you can create a FONT, ICON or FRAME for BILLBOARD MAKER, draw the image, convert it into a BILLBOARD MAKER picture file format and send it to us at:

> SOLUTIONS UNLIMITED INC.
> P.O. BOX 177
> DOBBS FERRY, NEW YORK 10522-0177

We will review it and if we like it enough to use it on one of our FONT/FRAME disks you will rewarded with a $20 check or a free copy of the FONT/FRAME disk that it appears on!!! Of course you will receive full credit for your masterpiece.

When creating an ICON/FONT (all 26 letters of the alphabet) use your best judgement in size and spacing. (Our staff artists will do the actual layout if we use it)

When creating a FRAME, if it is HI-RES, draw it in the first fourteen (14) pixels from the edge of the screen on top, bottom, left and right. Put a border line in the fifteenth (15) pixel area from the edge of the screen. If it is Multi-Color use the 6 pixel area from edge of screen (left and right side of frame) and 7 pixels from edge of screen for top and bottom of frame.

Sorry but we cannot return your diskette, which will become the property of SOLUTIONS UNLIMITED INC, however, if you include a self-addressed stamped envelope we'll be happy to drop you a line concerning the status of your creation!
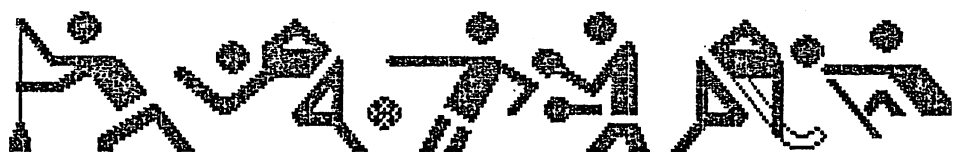
We're looking foward to the ULTIMATE FONTS/FRAMES for the ULTIMATE GRAPHIC UTILITY "BILLBOARD MAKER".

NEWSPAPER
SPACE
STENCIL
1234 ▨▨▨▨▨▨

SOLID

HOLLOW

SHADOW
AND INFINITELY
MORE!!!