

*Pixel Characterizer version 0.20*

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## Introduction:

Enclosed is my first Visual Basic program - *Pixel Characterizer*. The purpose of the program is to map each pixel of a small bitmap picture to a character. Then you are able to put/edit graph in your non-graphic text/terminal. And pretty pictures/icons/signatures can be put in your regular text files. Don't hesitate to give it a try. Dump it to your trash if you don't like it.

e.g. A Bitmap picture is shown as:



Use Pixel Characterizer to convert it to:

```

      @@@@@@
     @@      @@@
    @         @@@
   @   XX@   @   @
  @   XX@   @   @
 @@  XXX@ *X@   @
 @ @@X@ @ @ *X@X @@X @
 @ X@* *X@XX@ @X @
 @X@*   @@@ *X@X @
 @*    X   @ *X@X @
 @*   X@ X   *X@X @
 @*   X X@ X   @X   X@
 @*   X@ X X@   *@X *XXX@
 @*   X X@ X   *X@X *XXX@
 @*   X@ X X@   *XX@ @ *XXX@
 @*   X@ X   *XXX@XX *XX@ @
 @*     X@   *XXXX@X XX@ @@X@
 @*       *XXXXXX@ *XXX@
 @*       *XXXXXXXX@ @ XXX@
 @*       *XXXXXXXXXX@ @ @ @ @
 @@**      *XXXXXXXXXX@ @ @ @ @
 @@**      XXXXXXXXXXX@ @
 @@**      XXXXXXXXXXX@
 @@**      XXXXXX@ @
 @@**     XXXX@ @
 @@**    @*XX@ @
 @ @ @

```

### How to use:

1. you need to have visual basic runtime library *vbrun200.dll* in you path.
2. use your favorite graphic program/capture utility to obtain your bitmap picture in clipboard.
3. click ***Get BitMap*** button to paste bitmap to ***Pixel Window***.
4. change number of rows/columns if needed. The default size is 24x72. Because the regular terminal is 24x80. I use 72 instead of 80 due to the reason of using VI editor(set number is used).
5. change the color number if needed. The default color is black(0).
6. change output character if needed. The default character is \*.
7. click ***Convert BitMap to ASCII*** button or ***Character-Scale*** button to convert bitmap to ***ASCII Window***. The converting time depends on the configured number of rows/columns.
8. using ***Convert BitMap to ASCII*** any pixels which match specified color are converted to the specified character; other pixels are converted to space; using ***Character-Scale*** button pixels are converted to appropriate characters according to their gray-scale numbers(or luminosities) and depth selection.
9. use ***Send to Clipboard*** button to send text in ***ASCII Window*** to clipboard.
10. paste text in clipboard to your editor/dumb terminal/e-mail.
11. enjoy yourself.

### Tricks:

1. Clicking the pixel of bitmap picture in *Pixel Window* shows its color number in *ASCII Window* using hexadecimal system.
2. In addition to above function, *Alt-Click* assigns the color number of the clicked pixel to the *color # box*.
3. The color number in this program is in Visual Basic convention, where hexadecimal value is used.
4. The default convertible size is 24X72. Click *Get BitMap* button to switch between maximum and default size or Choose *Maximum* in *Size* menu to let all picture be convertible if necessary.
5. The default depth is 4 and luminosity is evenly divided into 4 ranges. Character-Scale depth and mapping characters can be configured as you wish. Test it by yourself.

**Limitation:**

- \* The width of convertible picture size is limited in *Pixel Window*.
- \* The maximum convertible width of a bitmap picture is 79.
- \* *Multiple pixels to single character* scheme is not supported.

**Contact:**

Users are welcome to send me any comments/bugs/encouragement.

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**Original purpose:**

I designed this program to show Chinese in dumb terminal. It is very difficult for me(or other Chinese, I believe) to read pinyin(or romanized) Chinese in any English operation system. Using this I can send out Chinese(or pictures) to dumb terminal users (They, unlike me, can't access graphic terminal or Chinese system easily). This program can enhance the communication in a more elegant style. Believe it or not, it works for other language system too.

## History:

- 0.00 11/26/92 the 1st release(VB version 1.0 is used).
- 0.05 11/29/92 \* add scroll bar for **Pixel Window**.(larger picture can be shown).  
\* bitmap picture size is shown in **Text Window**.  
\* row and column numbers reduce when smaller bitmap picture is loaded.
- 0.06 12/10/92 convertible picture height is not limited in **Pixel Window** any more.
- 0.07 12/11/92 \* message box is reorganized using 2 buttons.  
\* release to anonymous ftp site.
- 0.08 12/12/92 enlarge the width of **pixel window** to cover 79 pixels
- 0.09 12/20/92 output character is choosable.
- 0.10 12/21/92 change part of the color on the icon file.  
\* fix the bug while larger bitmap is moving up for converting.  
\* change waiting message to row number counting.
- 0.12 12/29/92 \* add the test color function in **pixel window**.  
\* mouse pointer changes to cross-hair on the top of bitmap picture  
\* converting is not limited to black anymore. add a color number box.  
\* add three menus: Color, Size, and Help  
\* alt-click enhancement in changing color numbers.  
\* restore the picture position after converting.
- 0.13 01/01/93 \* write pixchar.doc and compile it to pixchar.hlp file.  
\* simplify pixchar.txt for short browsing.  
\* change Help menu and delete **How to use** button.  
\* the correct small Courier font size is used to show text.
- 0.15 01/02/93 \* add bitmap to Help file.  
\* add my Chinese name in Help file.  
\* correct some typos in Help file.  
\* warning message for row number smaller than 1.  
\* The first trial to add Character-Scale scheme.  
\* add one more click to obtain maximum convertible size.
- 0.16 01/03/93 shows RGB and luminosity number while clicking.
- 0.20 01/08/93 \* swich to VB 2.0  
\* add depth menu and 4-depth character-scale dialogue  
\* design Character-Scale configuration icon.