Picture Production and Bitmap Conversion for GDEY0583Z31

Unit 1. Make Picture

This screen supports three colors, black, white, and red are all standard colors. In practice, you can refer to the color chart of the Windows system's built-in drawing software. When creating images, you need to separate the 648 * 480 resolution black, white, and red images into two monochrome images: black, white, and red, white (red is replaced by black), and save the images in BMP or jpg format, as shown in Figure 1.

Conception：

1. Monochrome: black, white

2. Three colors: black, white, red/yellow ( )

3. Four colors: black, white, red, and yellow

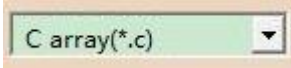4. Seven colors: black, white, red, yellow, blue, green, orange

Figure 1, Image Separation Steps

Unit 2. Bitmap Conversion

Bitmap conversion can be done using image2LCD software, which can be downloaded from the official website (https://www.good-display.com) . The interface for setting bitmap conversion parameters is shown in Figure 2 and Figure 3. Three color E-paper needs to be converted twice, and the steps for converting black and white and red white image bitmaps are the same:

1. Open the image2LCD software and click the "Open" button Open ,

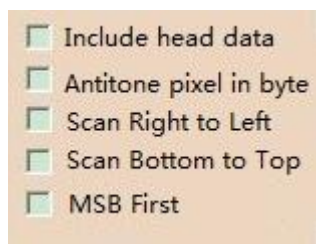Import the image that needs to be converted;

2. Output data type: Select "C array (*. c)" C array(*.c) ;

3. Scanning mode: Select "Horizon Scan" Horizon Scan ;

4. Output grayscale: Select "Monochrome" monochrome ;

5. Maximum width and height: Select "648" and "480",After selection,

you need to click the arrow below to confirm ;

6. Do not select any of these five options

☐ Include head data
☐ Antitone pixel in byte
☐ Scan Right to Left
☐ Scan Bottom to Top
☐ MSB First
;

7. "Reverse Color" Selection ☑ Reverse color ;

8. Click on 'Save' Save , Save the converted array to a file with an extension of ". C";

9. Finally, replace the corresponding array in the program with the
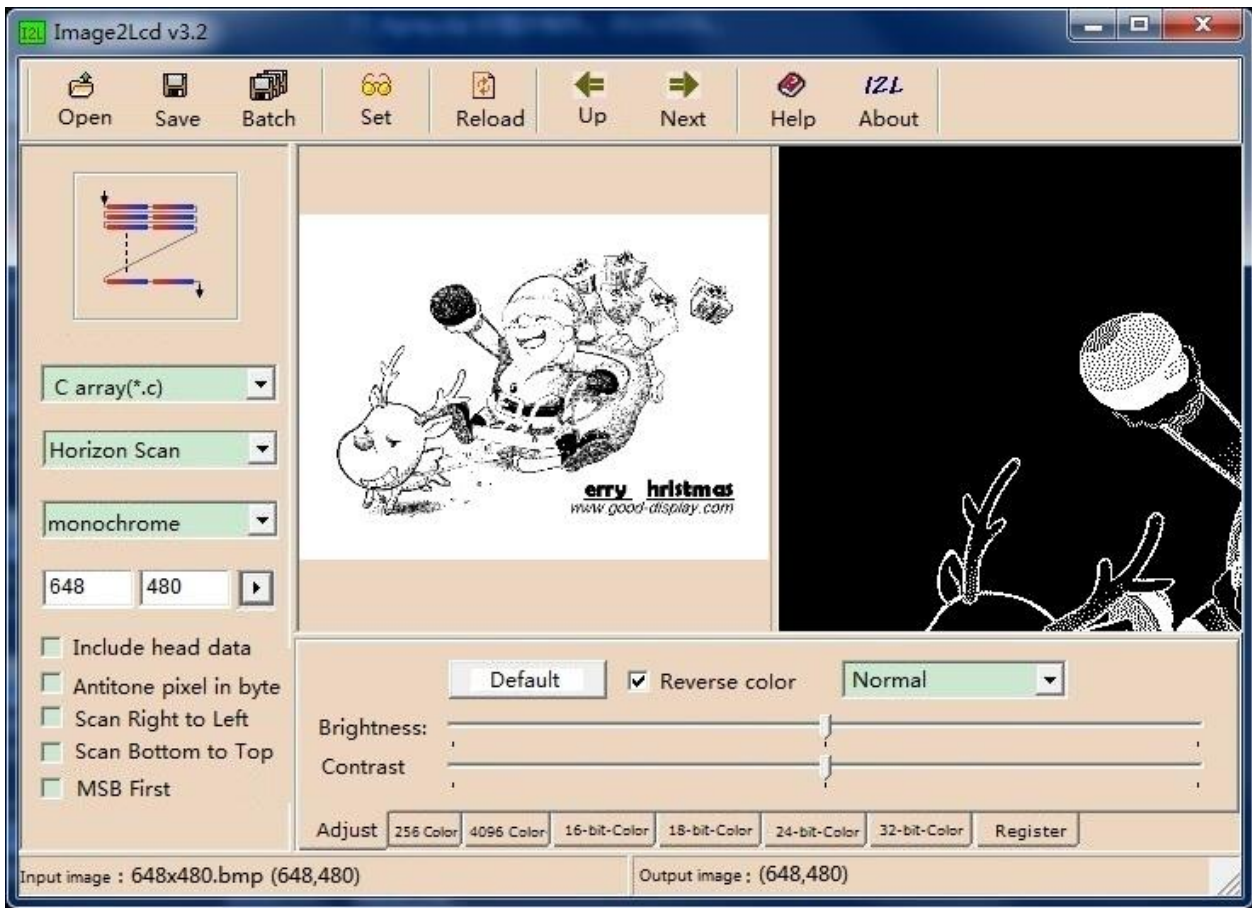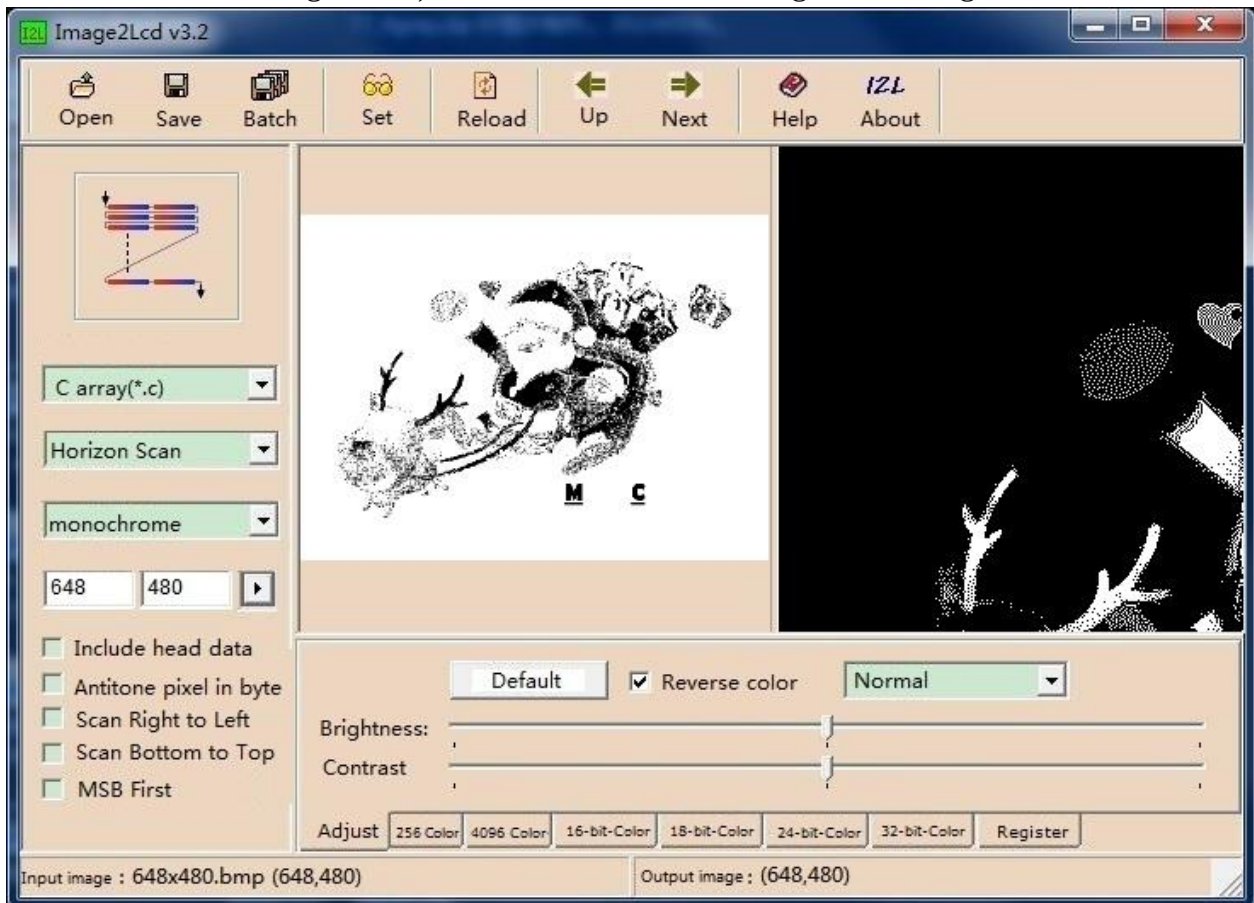
array in the file ". C".

Figure 2, Black and white image settings

Figure 3, Red and white image settings