TT Electronics

Generating Bit Maps Graphs
for
S-2CONNECT Press

1   Bit Maps Graphs

When creating the images for your S-2CONNECT Press, there are some guidelines that must be followed for the image to be usable. In this chapter these guidelines will be described.

2   The Display

Parameter	Specification	Unit
Screen size	2.13	Inch
Display resolution	128 (H) x 250 (W)	Pixel
Active area	24.83 (H) x 48.55 (W)	mm
Pixel Pitch	0.194 x 0.194	mm
Resolution	131	DPI (Dots per Inch)
Colour	Black/White	

3   Creating graphs

There are different ways of generating the correct graphics for the display, in this chapter two possible methods will be described.

3.1   Power Point

A graph can be created with a lot of different standardized software. In this example we will use Microsoft Power Point.

This method consists of three steps:

1. Create the graph
2. Convert the graph
3. Use the graph

The best thing is to create a graph that has similar height-width ratio as the display to avoid that the graphs will be "destroyed" during the conversion phase.

The first step is to add a rectangle that matches the physical size of the display. It can be the exact size or double or triple the size. It is not necessary that the size matches the active area of the display exactly, but it should be at least close to it.
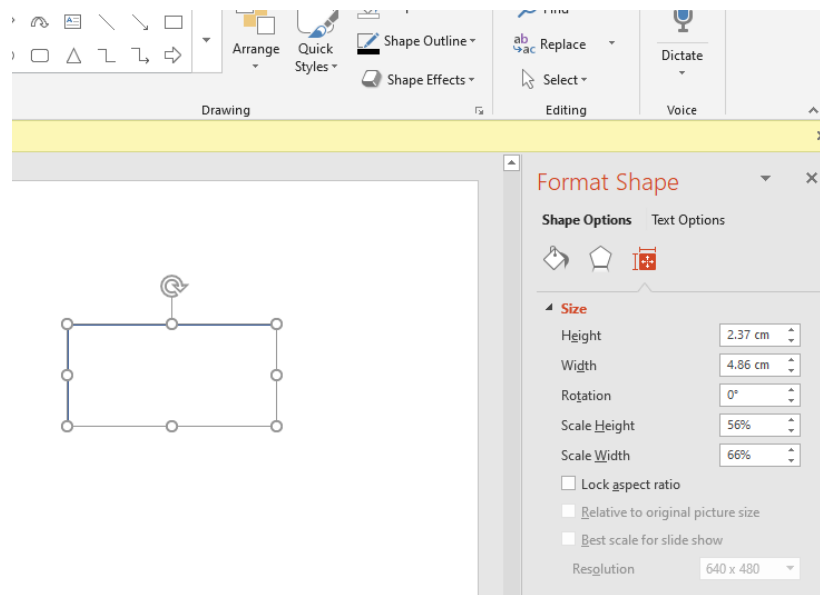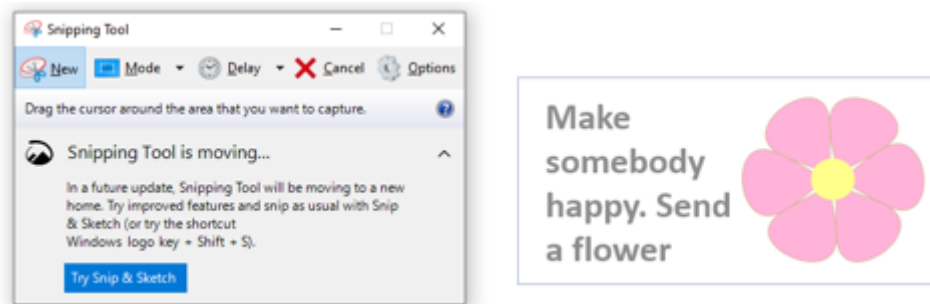

Now a mix of text and pictures can be put inside the rectangle. Avoid pictures with a lot of small details.

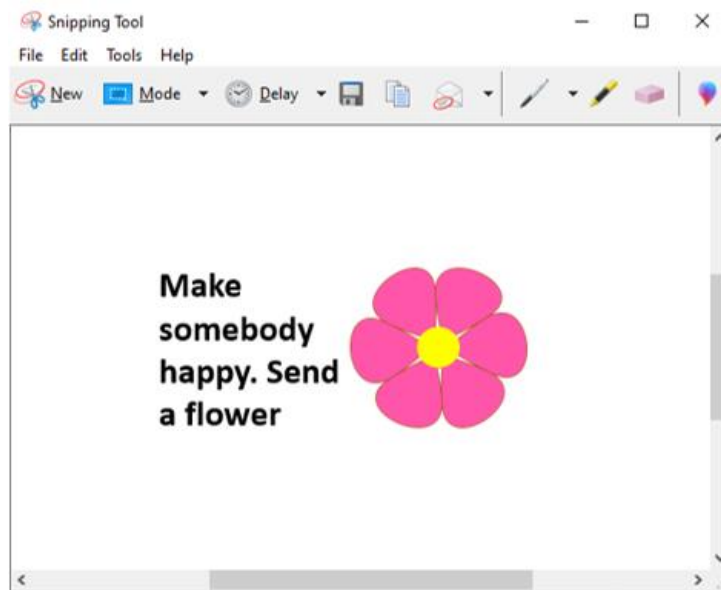Here a flower together with some text has been added.

S-2CONNECT

Generating Bit Maps Graphs

Next open the snipping tool, mark just inside the box and "snip" the graphs without including your original rectangle.

Store the captured graph as a png-file and now the first phase is completed.
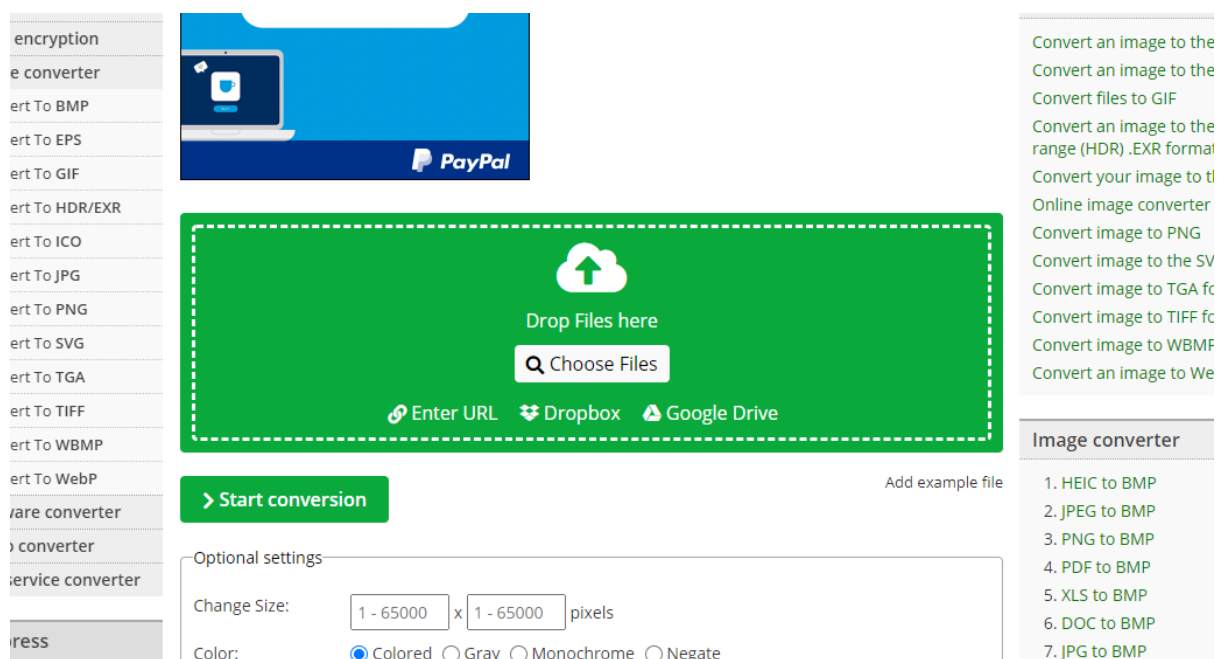
3.1.1   Conversion

Next step is to convert the created graph to a suitable format for the display. Here, the following online tool can be used:

https://image.online-convert.com/convert-to-bmp

In the green area, choose the png-file that was created in the previous step.

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Select the right pixel format and select Monochrome

Finally press "Start conversion".

The conversion will be made, and a bmp-file will be downloaded to the computer. Now this new image can be uploaded in the configurator.

3.1.2   Final Result

3.2   Paint

The other way in which a bit maps graph can be created is with the help of Paint. In this example the only program needed is Paint. The steps for this process are:

1.   Create the graph in Paint
2.   Save as Monochrome Bitmap
3.   Use the graph

3.2.1   Create the graph

Once in Paint, start designing the image with pictures and text. Avoid pictures with a lot of small details. The size of the canvas does not matter at the moment, that will be adjusted later.

Keep in mind that it's best to keep the image black as it will become black once saved as a monochrome bitmap. Here is an example of a possible design:

3.2.2   Resize the graph

Once the design is finished, it can now be resized to the correct format.

After clicking on the resize tool, choose *to resize by Pixels,* next, check off the *Maintain aspect ratio* box, and change the size. The size must be **250 x 128**. Click ok.

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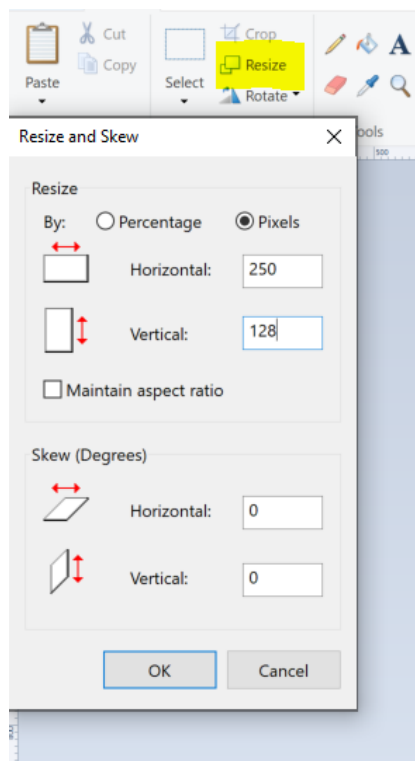
3.2.3   Save the image

Now that the image is in the right format the last step is to save it. Click on the *Save as* button and choose to save as a monochrome bitmap. Since the work is done in paint the image can be further adjusted manually.
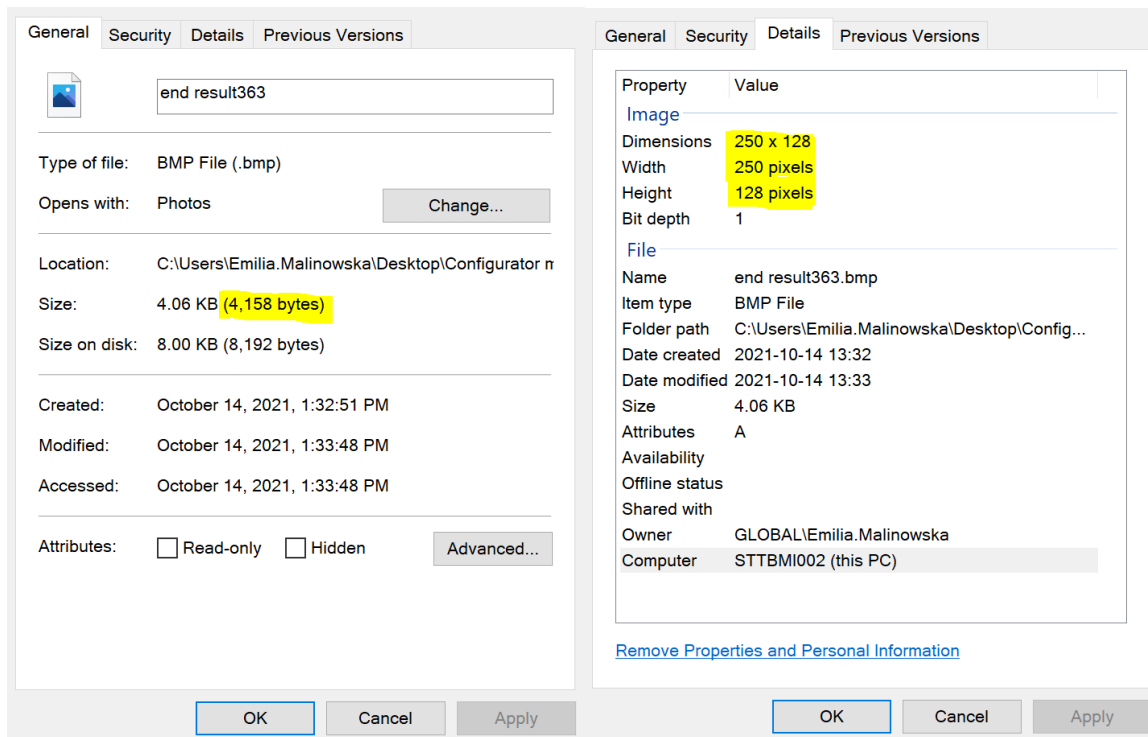
Note that after saving the file, it must have the dimensions 250 x 128 and be 4,158 bytes. This can be checked by right clicking on the file and opening *Properties.* There a new window will pop up where you can see if the file is in the right size.

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3.2.4   Final result

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