

txt₂°°°

[*t e x t t o d o t s*]

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Introduction

Have you ever sweated for hours over a project involving a logo with characters composed from blinking lamps? Or one where the customer wanted a logo made from tiny diamonds? Or the Euro-symbol picture from tiny coins? If any of the answers was "yes", you have just found the right software for you!

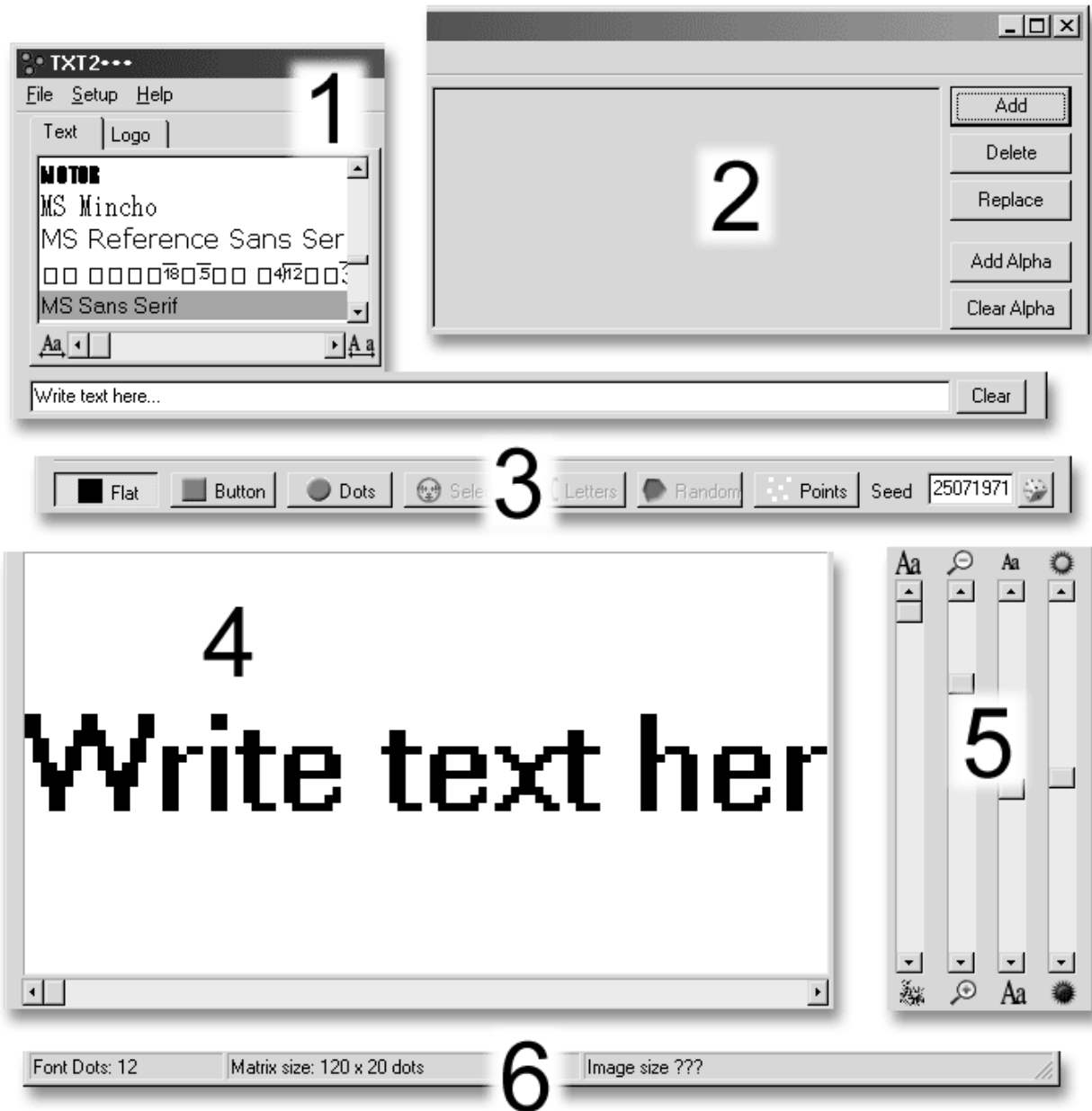
txt₂... (read „*Text-to-dots*“) is a perfect solution! The program imports previously prepared icons, assemble them with image masks and you only task will be to chose the text, font and font size – or load an already existing logo, press a single button and go get yourself some coffee. The software will arrange the icons and calculate the resulting file with a high-resolution mask, ready for further use! Well, perhaps more than just a single button, but the program's settings are dead simple and highly intuitive.

You can see sample graphics generated with **txt₂...**! OK, now you really need to open <http://www.txt2dots.bezier.pl> download the demo version and see for yourself that this is just what you have been waiting for.

Good luck!

Main window

After starting `txt2...` you will see a window like this: It may look slightly different then, since all its elements are linked, but this way it will be easier to explain what they all do.



So, Group **1** allows you to choose the right font, set the right distance between characters or load an already existing logo. Group **2** manages your icons and their masks. Group **3** consists of buttons which allow you to switch between the preview mode and the working mode. Group **4** is the preview window. The last but one Group **5** consists of scroll boxes which allow you to set different preview and rendering parameters. And last but not least, Group **6** - a status bar providing information on `txt2...` work progress.

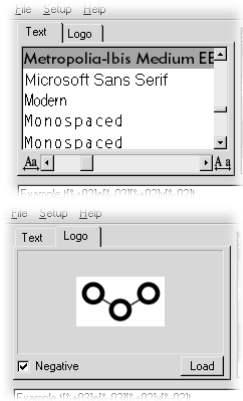
Not it is time to explain what all these elements do, with examples to illustrate it. That's what we like best! :P

Group 1. Text and logo.

As you already know, **txt2...** allows you to transform both texts and existing logos into icons. This is where you can choose whether you are working with a text or a logo.

Go to the Text tab and choose the font which you want to use, set the distance between characters and write the texts in the field below.

If you want to work with an already existing graphic logo, go to the Logo tab and load the graphics. Remember that light points are important here, so if your logo is a negative, press the Negative button.



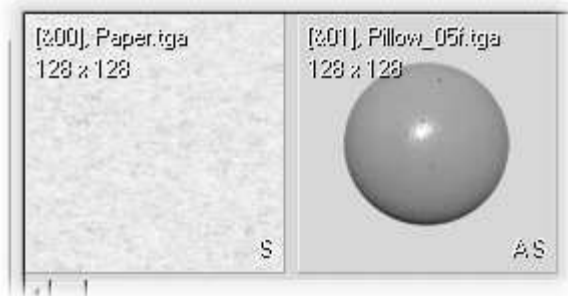
Group 2. Icons.

This group is very important. Perhaps the most important one. It is here that you manage the icons you have loaded, add masks to them and specify what background you want. Let us first define "icons" as the image which will end up as the "pattern" on your final result, e.g. lights, matches, coins, etc.

We have a couple of rather recognizable buttons here: Add – adds a new icon. Delete - deletes the selected icon. Replace – replaces the selected icon. There are two more buttons below: Add Alpha - which adds a mask file for the selected icon and Clear Alpha - which removes the mask.

After you have loaded some icons, you will see their list in the window, together with a description for each of them with some more details. You should see the number of the icon and the file name in the first line. The number is a very important element, which you will soon learn when studying the chapter on the kinds of displaying graphics!

Below, in the second line, you should see the resolution. On the right, there are the letters: A - if a mask has been added to the icon and S - if the loaded graphic is bigger than the window and has been zoomed down to the preview window size. The icons with masks are displayed together with the masks.



All icons must be the same size

The first icon is always set as background [000]

It is recommended to make it as close to a square in proportion as possible

Avoid loading very big icons – the recommended size is between 100 and 150 pixels long and wide

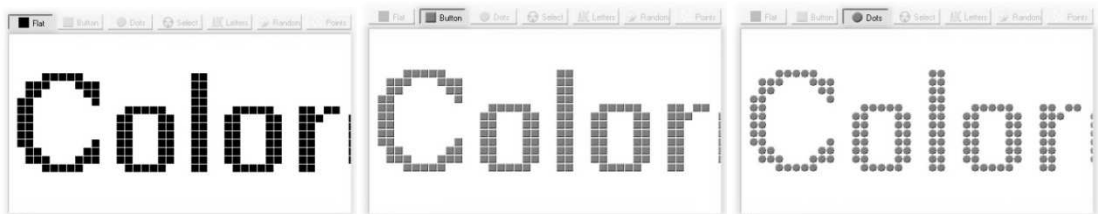
Group 3. Preview

So far it has been easy. Now it does not get any harder either :P In Group 3 you pick the preview mode for your images. There are seven buttons there, and they switch the preview modes.

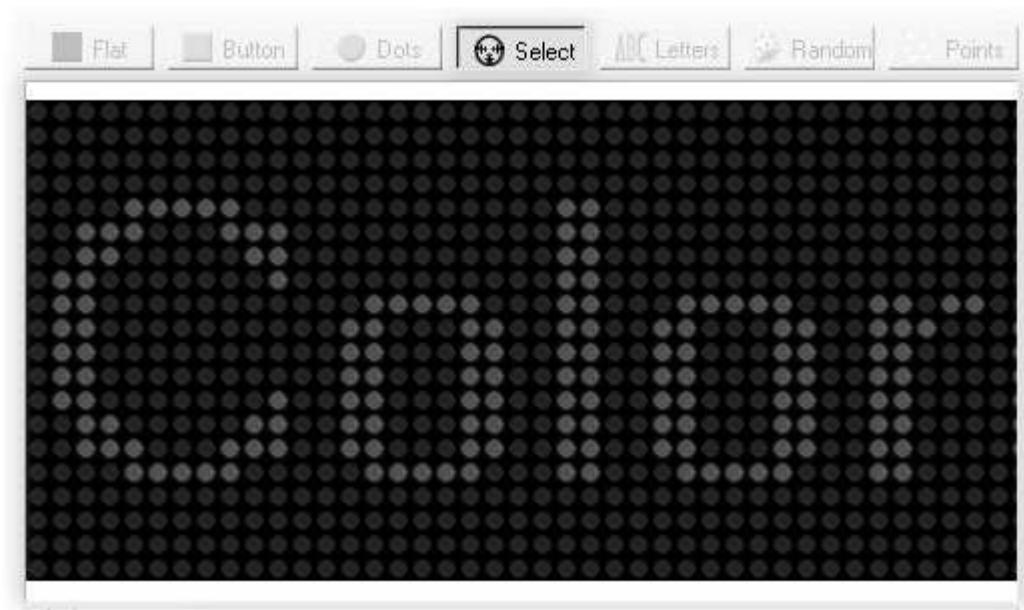
Now you are going to learn about their functions together with our favorite graphic examples.



The first three do a very similar thing. They allow you to preview the settings at the moment where you have not yet loaded any icons. They also let you see what the settings are when you are working with some that are very intricate or not very well visible against the icons. They just work by using defined objects for display, and not the icons themselves. So, respectively, Flat will display black squares against white background, Button - grey squares with a shadow and Dots - shaded grey objects. This is how it looks:



The next button, Select displays a single, selected icon. As the background it displays the first icon [00]. Load some icons, choose Select and click on them and they will generate the preview. This is how it looks:



The fifth button, Letters, is only active when you choose Text in the Group. Its work is a little more complicated than that of the previously discussed ones. It is one of the `txt2...`'s basic

functions. It allows you e.g. to build a running bar such as those that display stock values. You can do it another way too, but guess what! The Letters function allows you to modify individual letters of DIFFERENT icons! That's right! In this way, the falling stocks can be displayed in red, and the rising ones in green. And now try doing it manually...



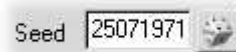
How to do it then? Easy! Just select the letter or word you want and click the icon you are using to display the selected element. Ready. Simple, wasn't it? Now let us discuss one, more complicated method. The individual icons have names, which I have already mentioned, e.g. [&01] or [&02]. It can be entered manually where the given icon is to be used and when it is to stop being used. Just type „[&+01]” in order to let the software know that since now it is to create all elements by using the icon [&01] and in order to make it stop using this icon, just type “[&-01]”. So, if you have the text „This software is great” and want the word “program” to be created with the use of another icon, type: “This [&+02]program[&-02]is great”. The coding for the above example looks as follows:

```
[&+01]Col[&-01][&+02]o[&-02][&+03]red[&-03] [
```

It's so simple and so much fun!

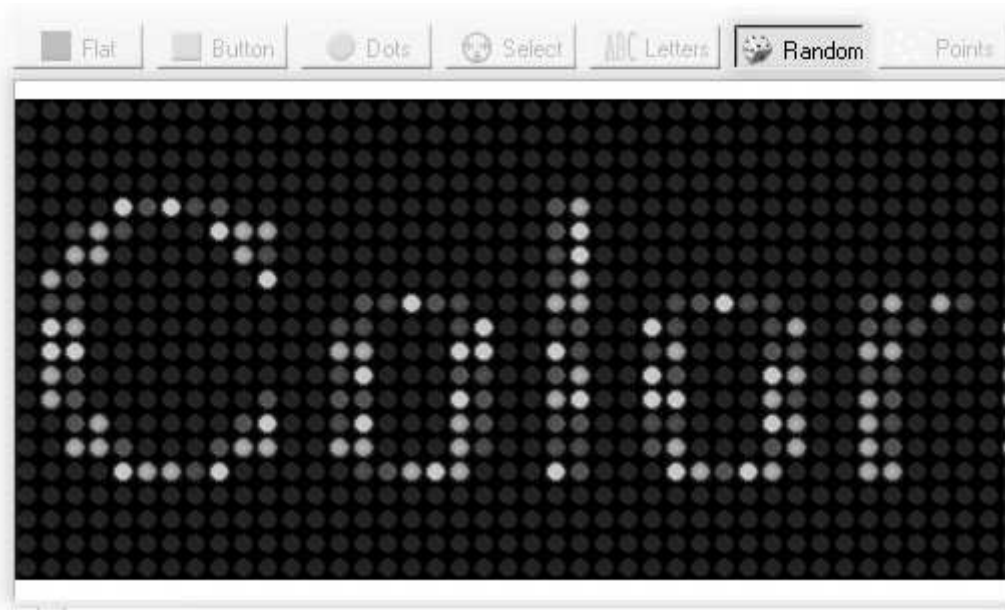
If you mess up your text too much so that it no longer is readable, press Clear to remove all the icon change symbols. Now your text is nice and clean again

While we are at this tab, read a few words about the mysterious Seed indicator at the end of the buttons. It helps you too adjust the initial value of a Pseudo-Random Number Generator (PRNG). Too nerdy? I think so :P In human terms, it means that sometimes the parameters randomly chosen by the program may not suit you, so then you can click the button with the dice on it and **txt₂...** will generate a new set. Just like Lotto. If you really want to, you can type in your birthday in there – it will work too, and make you proud!

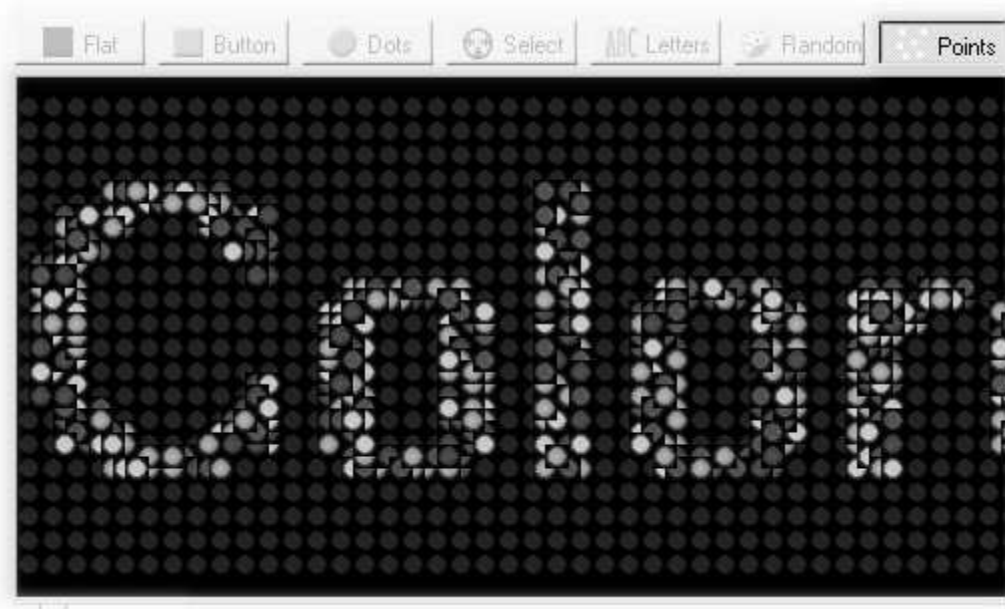


Now that you have been through the fifth button, the next one – Random – will not be a problem – congratulations!

It will let you preview your image or text's final look when all the elements have been chosen randomly from the pool of icons. That's right! This way you can create a text or a logo using e.g. randomly arranged coins. And that is all - have a look:



Phew! Now there is only one button left: Points. Even though it is placed at the very end of the list it is probably the most often used one. It allows you to wreak absolute havoc in your images :P Just like the previous one, Random – it chooses images randomly, but it does not place them in an even line based on the background, but it moves them in random way never exceeding their size though. You can also determine HOW MANY of such icons can be placed in one position! Now just take a look at the picture:



Of course, this option is better used without a background. But, do not worry about the images on the preview are generated without the mask – in the final render it will be OK!

If the image above does not really appeal to you, go to the Gallery section at the end of this manual and see what else it can do!

Group 5. Settings.

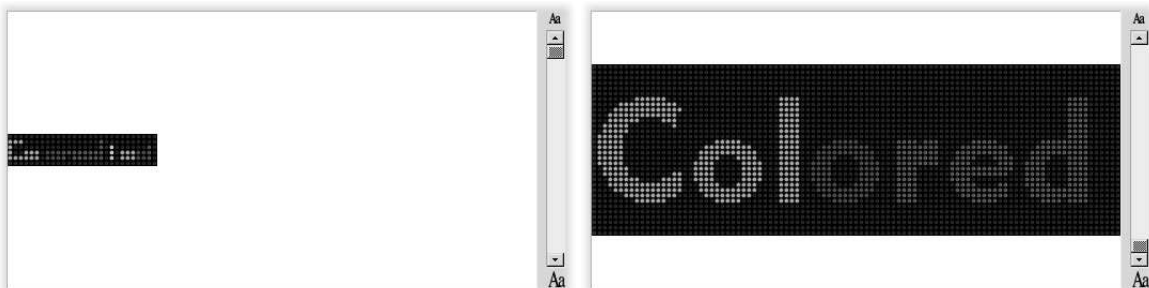
Uh-o! You have just learnt to preview your work. Having learnt to load icons, enter text or a graphic logo you now know almost everything. And now there comes the best. Like a cherry on a cake? It is the cherry that completes the effect. And that is what we will be doing now. You can create an image, but it probably needs a little cherry on top.

Group 5 consists in small scroll boxes. There is actually more of them and they change their function depending on the selected preview mode.

Here is what we do: read what the individual boxes do to gain a general understanding of them, and then create or load an existing project and scroll them freely, so that you can see for yourself :P Now, but I promised I would tell you something about them, so here I go

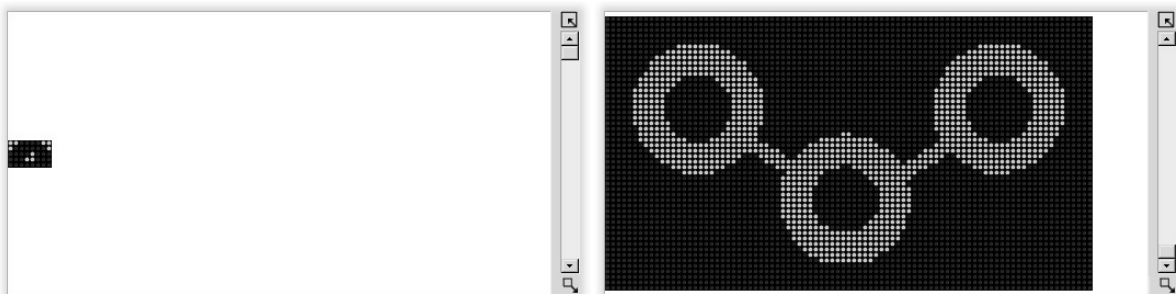
The most frequently used one is the change font size scroll. `txt2...` does not display information about the font size - it is not a mathematic program :P the result is meant to LOOK PRETTY. If you choose a font that is too small though, the writing will be hard to read and a big font will cause the image to be too big. Well, let us do a little math nevertheless: if one icon is 100 pixels high and you choose a font build from 20 pixels you get an image that is 2000 pixels high. That is fairly acceptable, but an icon 256 pixels wide and a 30-pixel-font... now, how much will it be? 7680 pixels – and that is a little too much for a logo height – 22 inches at 300dpi...

This is how the writing looks at maximum and minimum scroll:



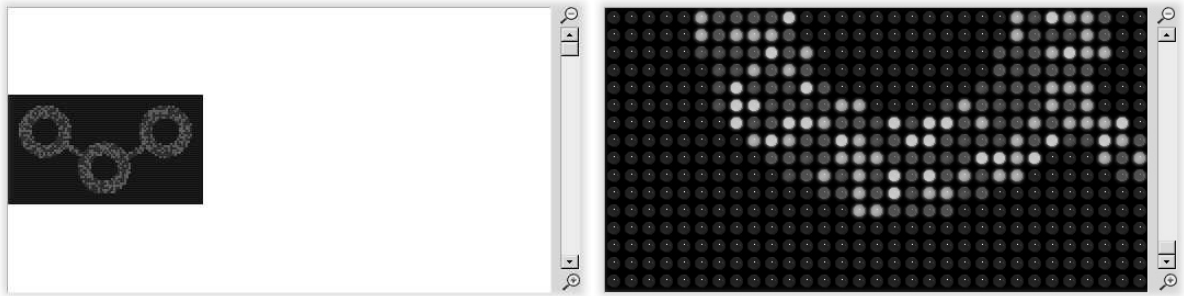
All right. Now, what will happen if I load a logo? It is 200 pixels high. Now, let us add 200 pixels of the icon height to it. Now, we get 40,000 pixels in height! Such a file can be processed by a selected few good computers in the world – and that is why you should prepare a smaller image for your logo before, or use the scroll you see when selecting the Logo tab. You are right; it scales the loaded logo image.

This is how the writing looks at maximum and minimum scroll:

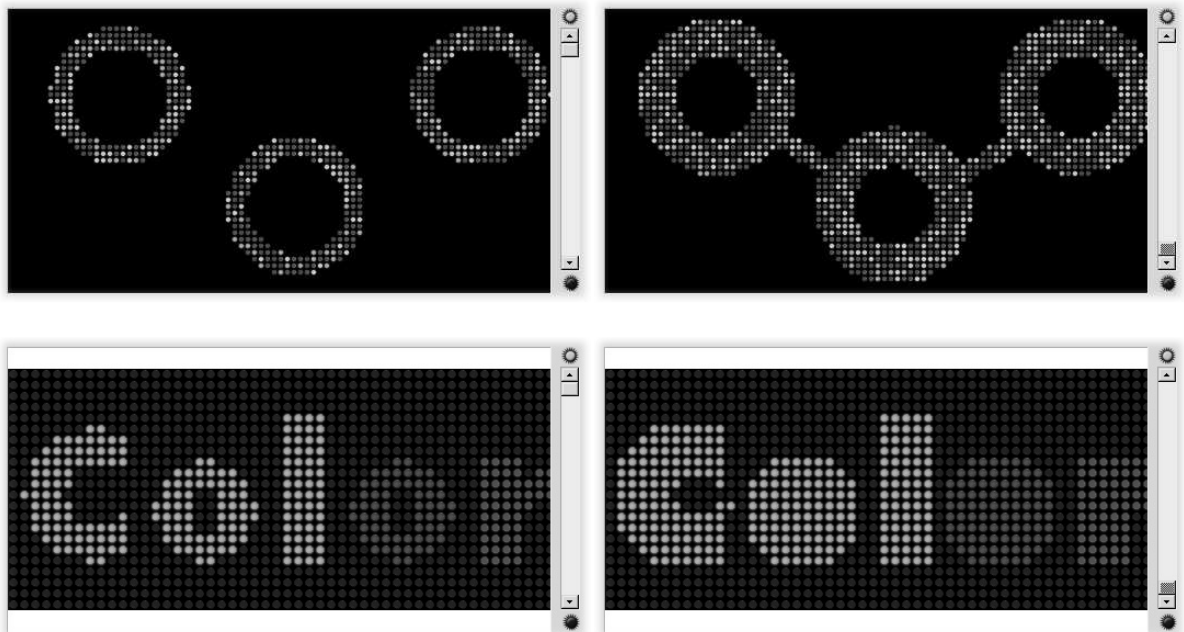


I know you cannot wait to see the promised cherry on our cake, but patience! There is one more scroll – purely utilitarian one - the magnifying glass. Sometimes you will need to zoom into a fragment of the image – then draw the magnifying glass up and down and be happy.

Just a little notice. This is how an image looks at maximum zoom in and out:

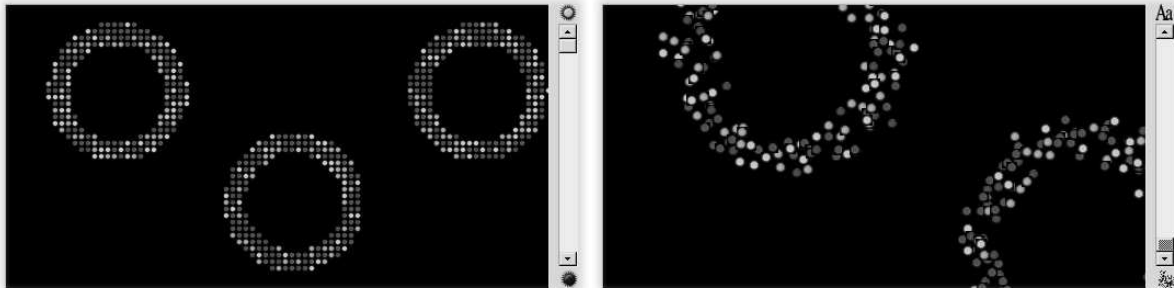


And one more. I promise, this scroll is the last one. Or, maybe it already is a tiny cherry itself. It allows you to bite into the generated writing or logo. Sometimes the points suggested by the software may make the letters look blend in together and the logo less clear. This scroll will let you modify the thickness of the letters. So much for explanation, now let images speak! The four images show the minimum and maximum logo, and minimum and maximum text.



OK. Now the promised cherries. That's right! Two of them! Now, that's a cake – two cherries. Yummy. You do not always want your icons in a neat line like soldiers at assembly. Sooo even. If you are using e.g. coins as icons and make a logo out of them it is highly unrecommended. And here is where our cherries come in.

The first one is the scroll which randomly moves all the icons as far as it size. This is enough to put a little disorderliness into your image. See how this works:



And the second cherry is available in the last chapter, that one on rendering - patience, my friend.

Group 6. Status bar.

This is not really a group. There is only the **txt₂...** bar with some basic information. Firstly, how many icons the resulting image will be built in vertically (Font Dots). Then, the size in icons, i.e. the Matrix size. The last indicator on this bar is the resolution of the target image. It can be provided in pixels, inches or centimeters at the dpi of 300. You can adjust the units in the main menu of the program in the section called Setup->Information. The remaining elements of the menu are described at the end of this manual.

Menu

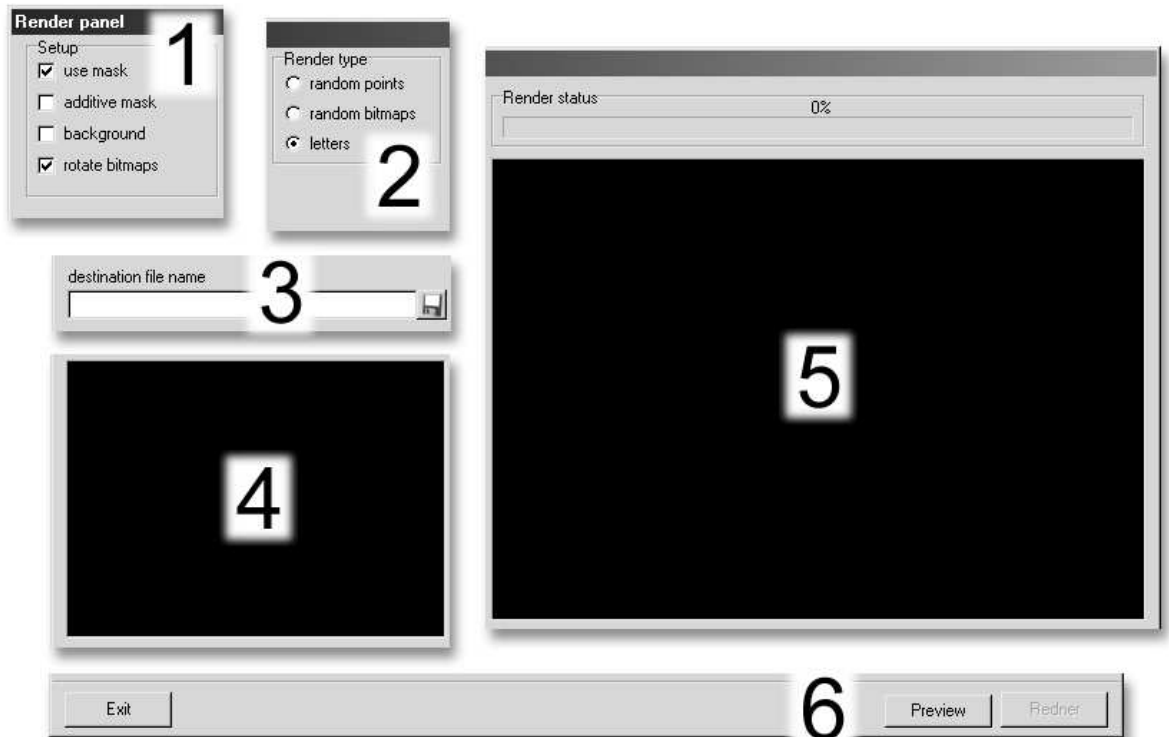
Now you know everything you need to in order to create an image. Now just calculate everything, print and then go meet your customer with a prepared invoice. Too bad **txt₂...** does not print out invoices. All right, let's get back to our subject. We were talking about the menu. Actually, it is all very nice and simple – Load loads a project, Save saves it and Exit exits the program. You can also open this manual or go to the **txt₂...** website, or change the language.

OK, but saving and loading a project you must remember one thing. **txt₂...** remembers all its parameters (it is a good thing, because that is what most of us want) and just NAMES of files used as icons or logos. That is why I suggest that you always keep all files needed for one project in the same folder! Otherwise you will have a problem with finding them and waste your time and energy.

Now that is really the end of the menu discussion... Or it is? No, there is one more magic button, which is activated only once you load some icons - Render. This is where you can calculate your image – and that is the story for the next chapter!

Render

Now we are at the heart of **txt₂...**. When a project is ready, you can choose the Render option from the menu to open the window where you set the parameters for calculating the prepared image. Once you click it, the software will suggest to save the project warning you that sometimes the calculation can take some time, the image is calculated line by line and if something wrong should happen to your system, computer or the program itself, you can lose your unsaved work, so you better save your project before you start rendering it. Once the rendering window is open you should see something like this:



Of course, just like it was the case with our first remark in this manual, the window may look slightly different! The elements will be put together :P

I have divided them again into groups. But, do not worry, although there is the same number of elements, it will take less explaining. We have done the hard part now.

So, you can choose from random points (the Points button from the main window), random bitmaps (the Random button) and letters (the button called, let me guess – Letters!) Now everything is clear and I don't have to explain anything :P

Now, just for a change, group 3. And group 3 is just one field with an icon you must click to choose the target file which your calculated image will become. **txt₂...** renders only into the TARGA 32bit (RGB + Alpha) files with mask, which is used to calculate the elements without the background. This makes later processing of the image by different applications a lot easier. But you already know it...

Now, above you can see groups 5 and 4. In group 5, an image preview is generated and the bar at the top displays the progress during rendering. Additionally, while the calculation is taking place, you should see the its estimated duration on the right side. The time is estimated, while **txt₂...** is generating the image and trying to estimate how long it is going to take. It may turn out, though, that the calculations take longer and the estimations will not be correct. But all

in all, they will tell you whether you can go away and have a cup of coffee, call your therapist or leave the calculations to run overnight. During the rendering in group 4, and more specifically – the window 4, the information on the process is displayed.

And now, the dessert. Group 1. This is where the last parameters before rendering is set off take place. We have four fields here:

Use mask – once triggered it will render all the icons that have masks with a mask. If no icon has a mask, the button will not be active at all.

Additive mask – a very useful function when e.g. bubbles, glasses or smoke is rendered. Overlapping icons will be added to each other. Turning this function on will automatically exclude mask use. I suggest you use grey icons on black background for this option. Even though the program handles colorful icons, the effect can be deplorable.

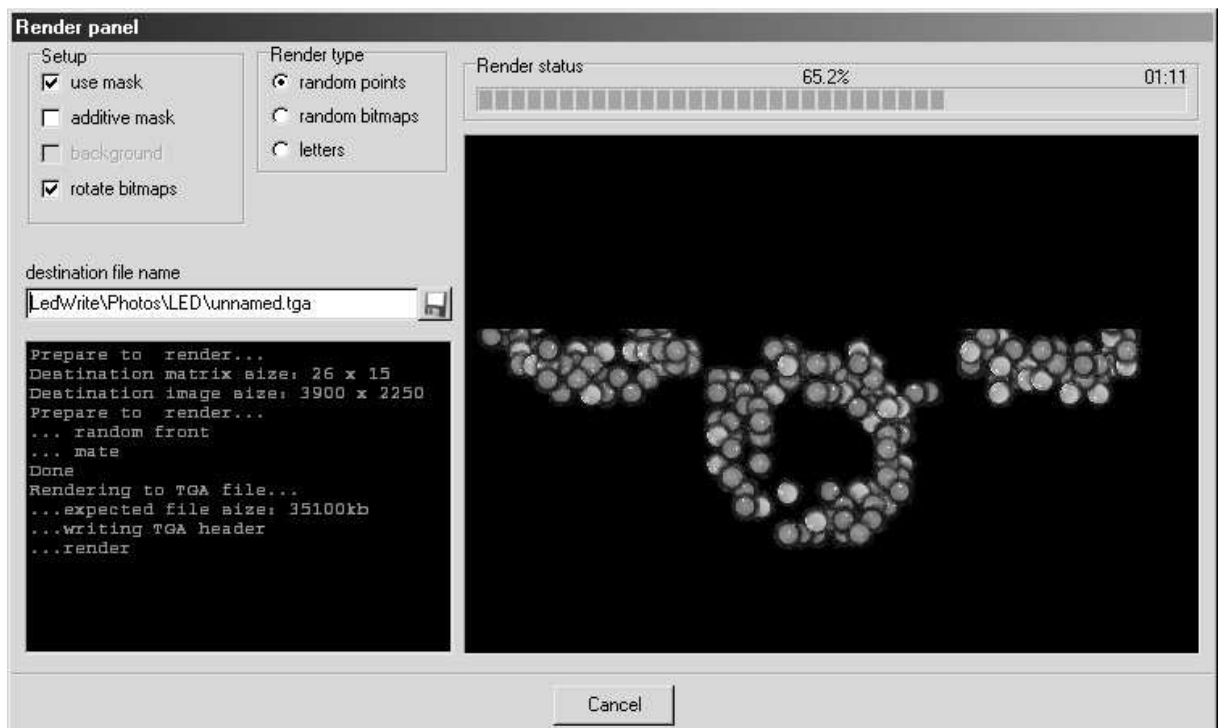
Background – dead simple. It sets the background to be taken into account or not. If the function is on the image will be rendered against black background. Do not worry about the rest – you will always get a file with a mask in the ends anyway.

Rotate bitmaps – last but not least. This is the last cherry! Each icon can be randomly rotated during the rendering process! Just think about the possibilities. It introduces the extra chaos which we all love :P

There is one group left – group 6. Not exactly a group again, it has three buttons which I will not discuss here in order not to insult your intelligence. I will just mention the fact that the Render button will not be active unless you select a destination folder for your image :P

OK. We have covered the buttons. Now you only need to know what happens while `txt2...` is rendering the image. There will be some math, especially some trigonometry, analytic algebra and statistics.

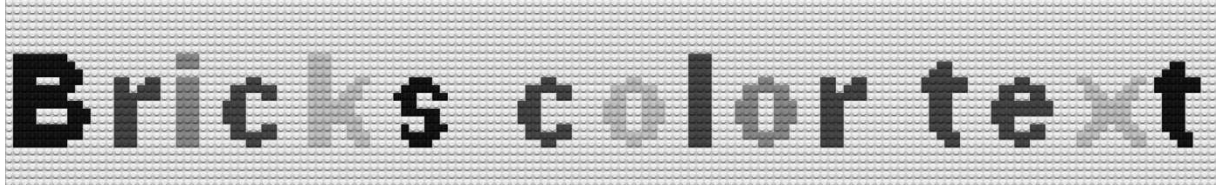
Just joking. `txt2...` does it on its own. Just take a look:



Add-ins and Gallery

`txt2...` installs a few example projects. They are located in the program folder, in the sub-folder called Projects. I recommend practicing a little on them. Just load them and press a few buttons.

Project: bricks/1x1colored_text.led



whole image

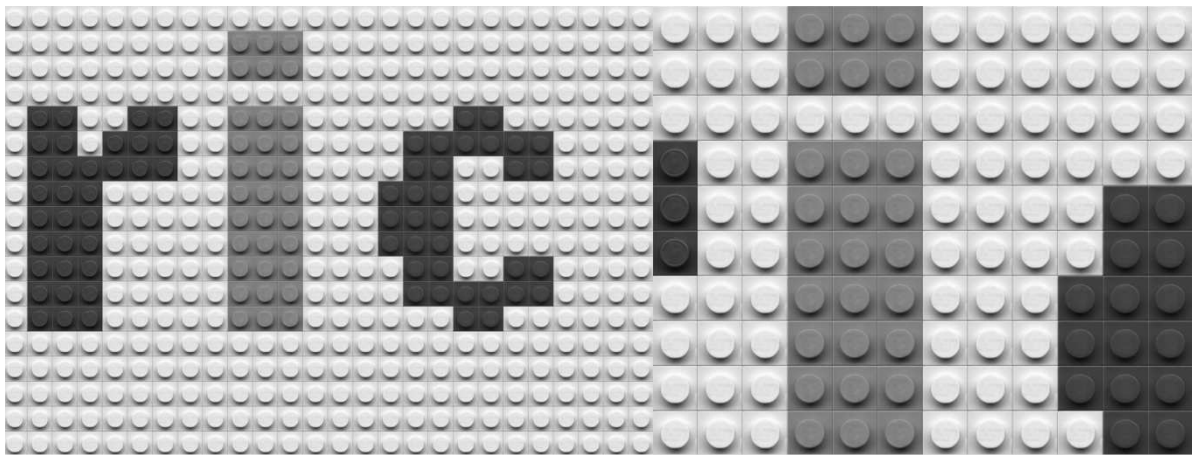
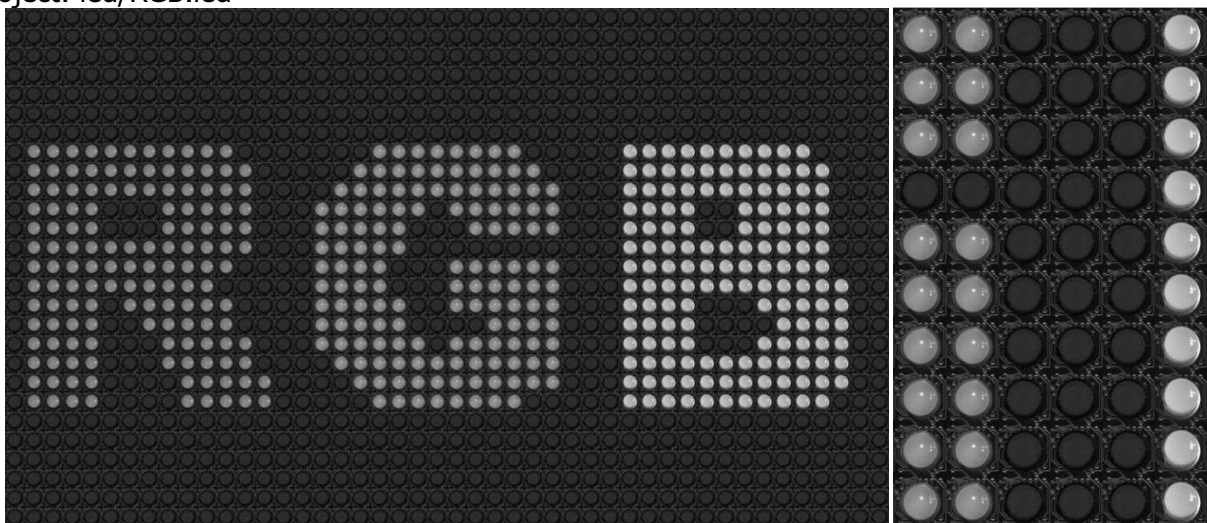


image 50%

image 100%

Project: led/RGB.led



whole image

image 100%

Project: bricks/Che1x1.led



whole image

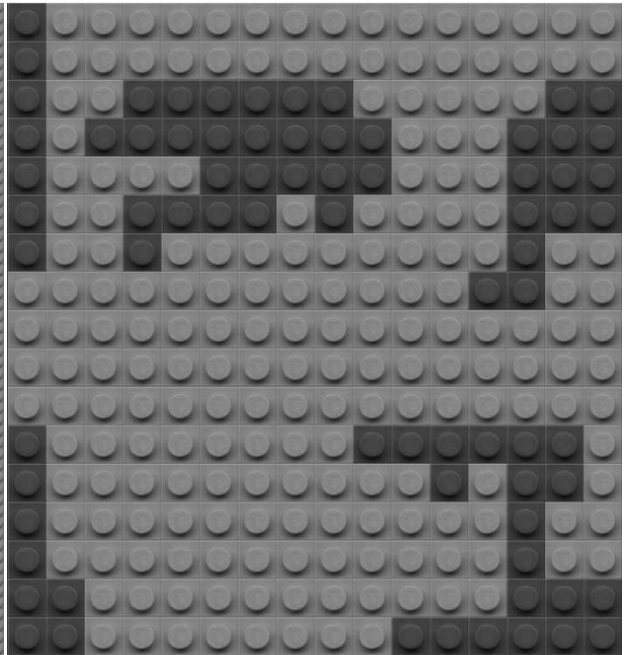
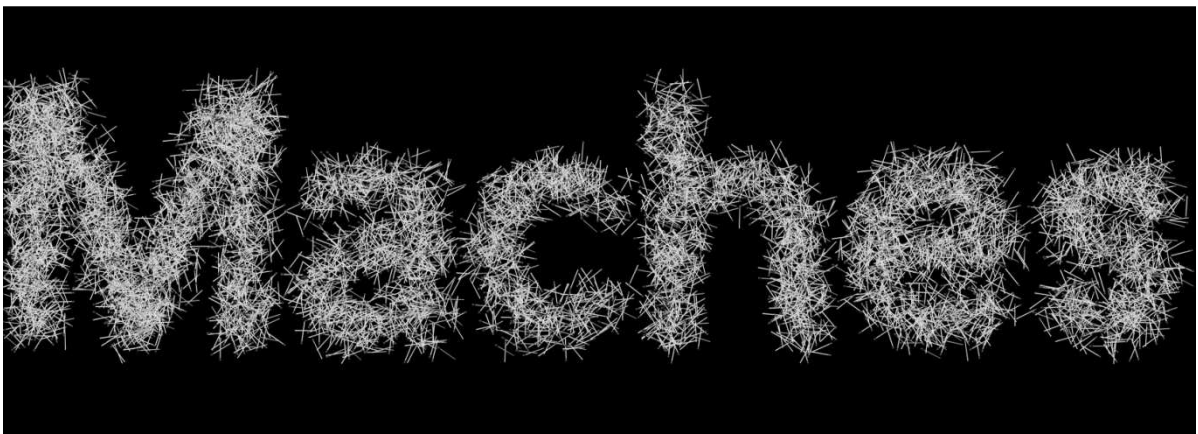


image 100%

Project: Matches/maches_text.led



whole image

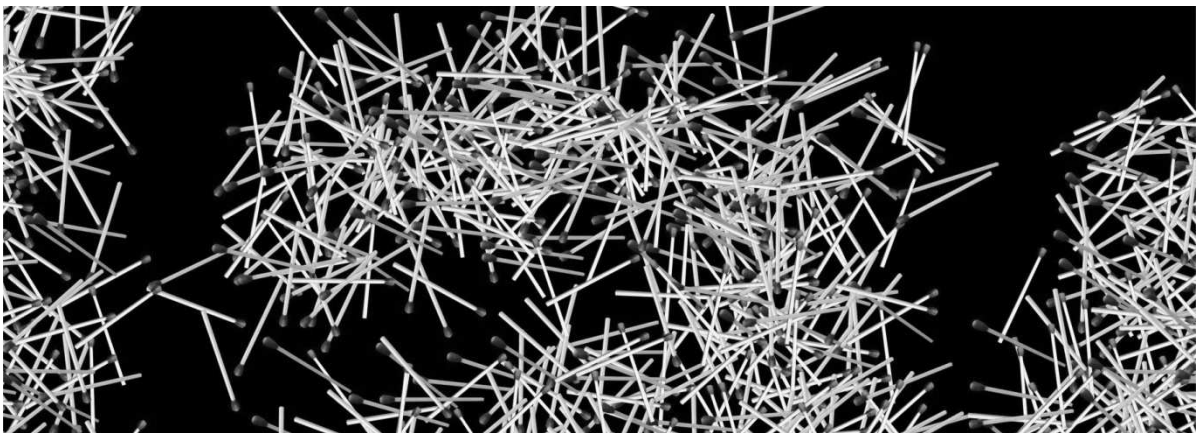
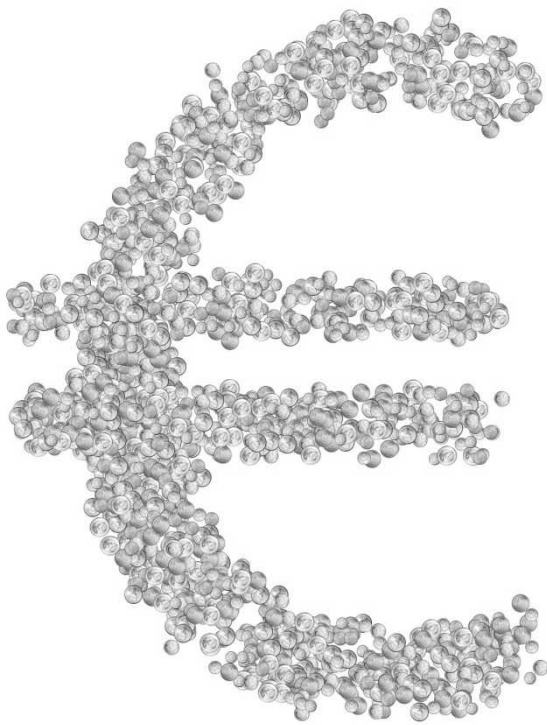


image 100%

Project: Coins/EuroSymbol.led



whole image

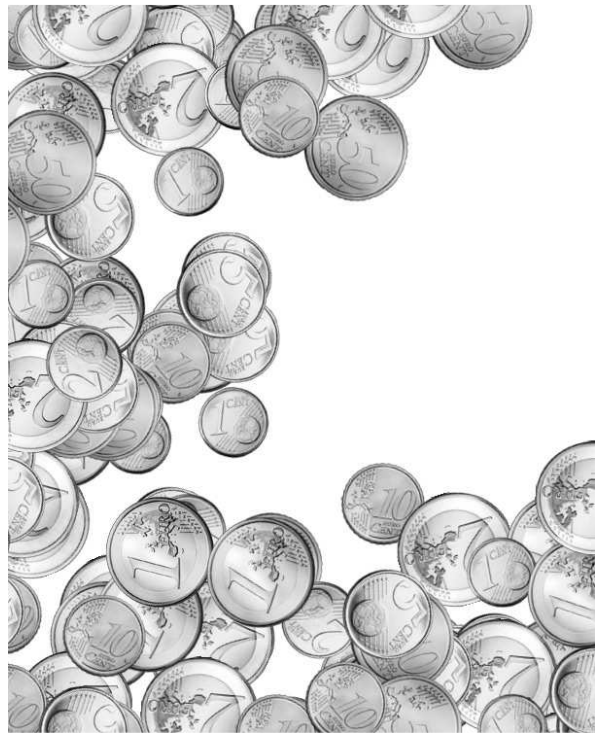


image 100%

Project: LED/Stock.led

AGH +1.25 PZPR +1.78 SLD -1.23 WTC +1.12 ADND -2.15 PD +1.11 WTC +1.67 PD +1.23 MS -5.77 PD +3.98

whole image

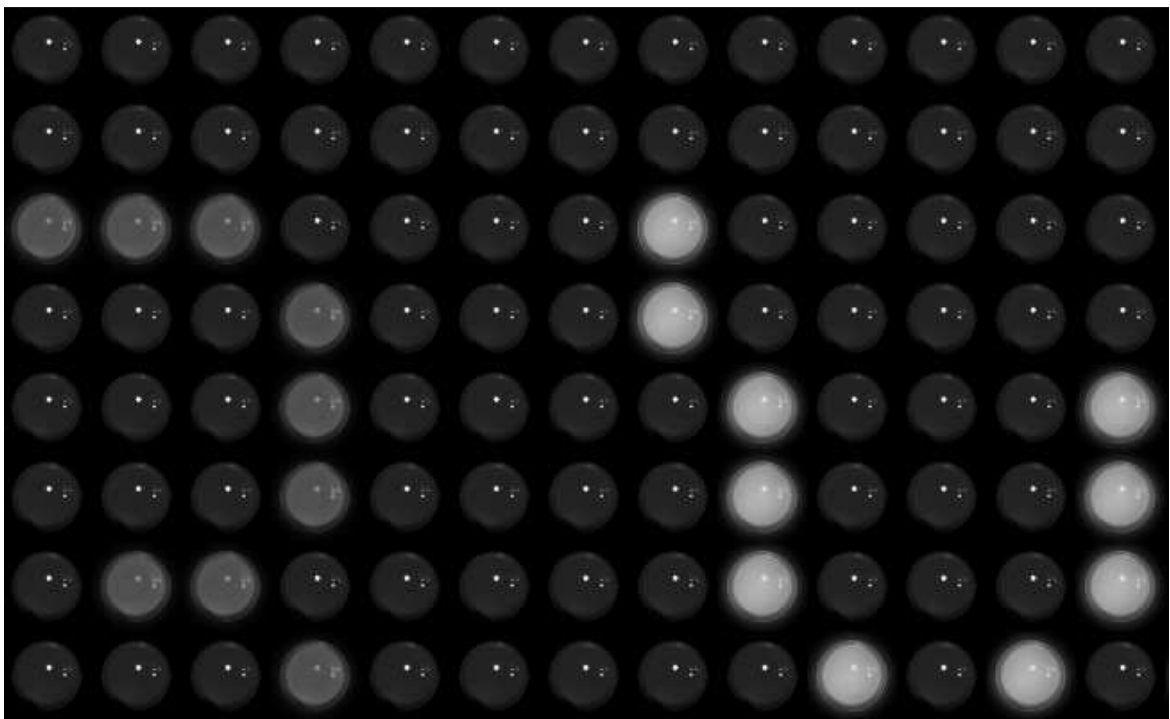


image 100%

Project: Pills/Esculap.led



whole image

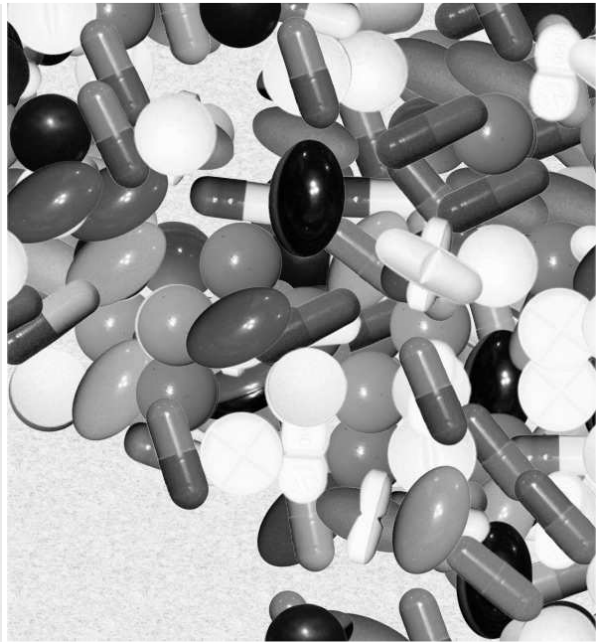


image 100%

Project: Diamonds/DiamondsTXT.led



whole image

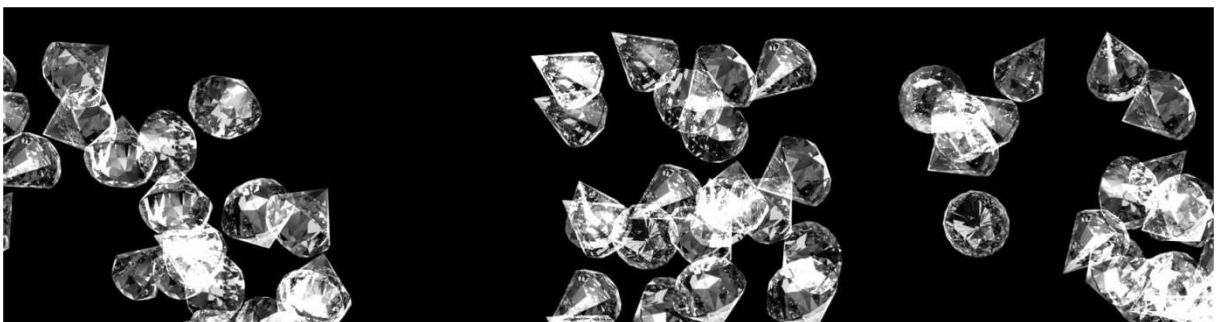
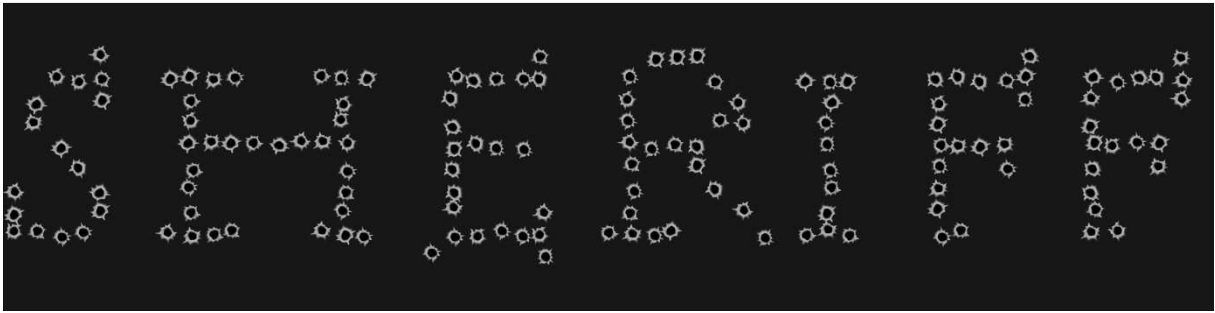


image 100%



whole image

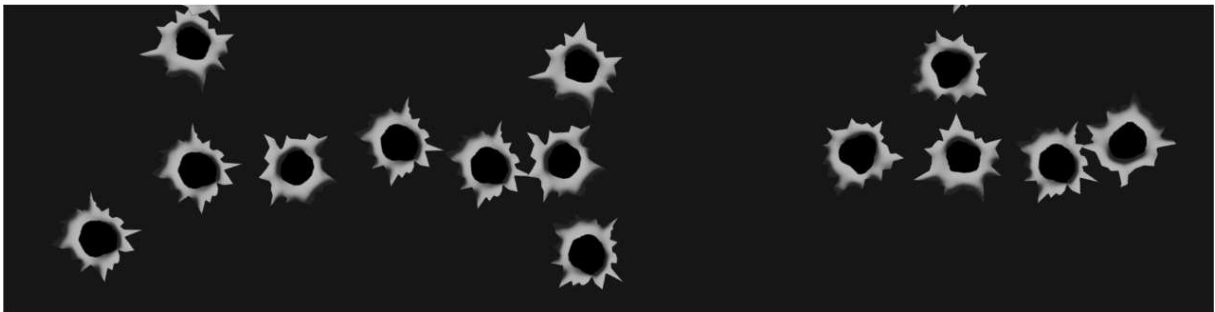


image 100%

Demo version, website.

At the url <http://www.txt2dots.bezier.pl> you can find the demo version of **txt₂...** It is different from the full version in that there is no possibility of saving your projects and what is more annoying – image rendering is replaced with a checked pattern. The other functions are active and you can practice using them before you buy the software.

There are some examples provided by users of the program on the website. You can also provide feedback there and post your suggestions about what you would like to see in the next version of the software.