Wordaizer 5.0 Tutorial

(Part of the help documentation)

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Precursor

Wordaizer is easy to use. There are a few basic controls and some additional controls. In this chapter we will guide you in a few easy steps to make a perfect wordlet. We will first explain how to use a wordlet, and then we will show how to tune and play with the different controls.

One word of advice: make sure you install and start the application as an administrator. The application requires permission to write settings to the harddisk (the same folder as the executable). In some cases an error will be experienced because the application didn't fully start, and can not write data to the hard disk.

Lesson 1: My first wordlet (but a bit boring)

The easiest way to make your first wordlet is to press the 'Start' button after completing the installation. After installation all information is already pre-loaded, ready to start immediately.
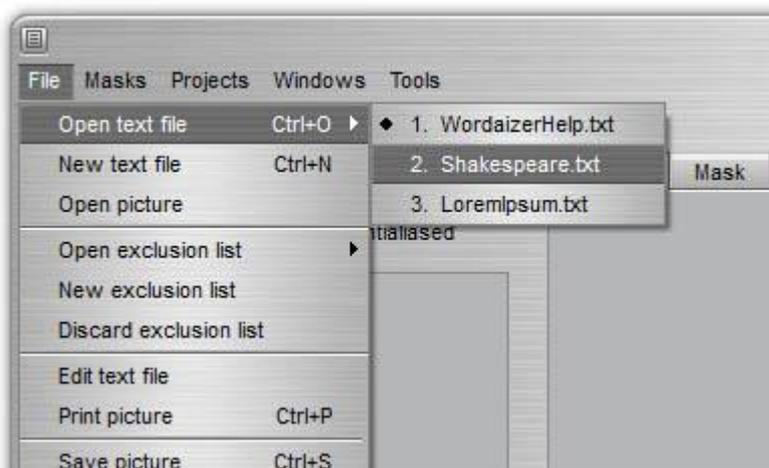
When the application is started, select 'File' and then 'Open text file'. You will see that the text file 'WordaizerHelp.txt' is already loaded and active. This is done during installation. There are two other pre-installed text files available ('LoremIpsum.txt' and 'Shakespeare.txt'). If you press the 'Start' button you will create your first wordlet (picture below). A bit boring result, but it's a true wordlet.
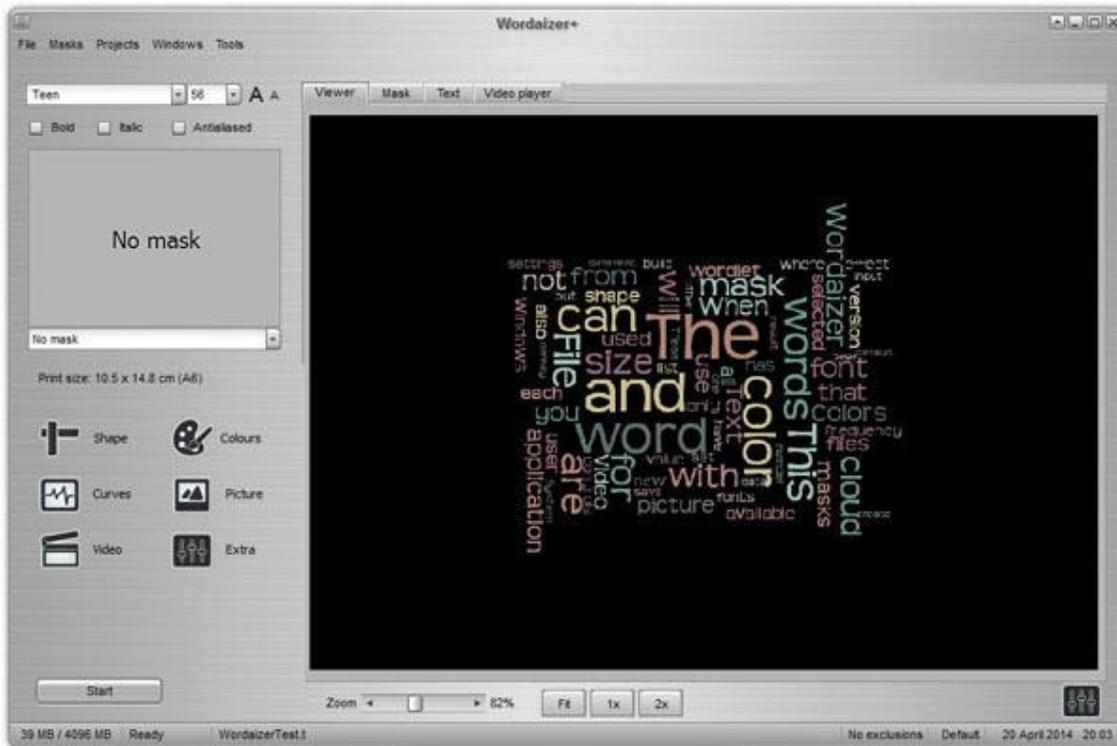
To make life a little bit more exciting you can also provide your own text file. Most important: you need to create a file that has the .txt file extension. In Notepad this is easy: it will only allow to create such files. In MS Word you can 'Save as' in 'Plain text' format. To make such a file, e.g. in Word, type in a couple of hundred different words, with spaces between each word, or simply make a long list of words. Then save as .txt file (saved in the ANSI format will work in all cases), and read this file using the menu 'File' 'New text file' and read the file. Then go ahead with lesson 2. Or start again with lesson 1.

Lesson 2: My second wordlet (and definitely less boring)

Wordaizer has a couple of very useful controls to make any wordlet a special one. These are:

- **Font**: size, type-face and style.
- **Amount**: the number of words you would like to be placed in the wordlet. Usually 50 to 200 is a good range.
- **Mask** : the predefined shape that you would like the wordlet to be.

Let's start with the **font**: we can select the font in the top part of the application. You can select any font you like. A wide selection of fonts is pre-installed to allow for beautiful wordlets. For this exercise we will select font 'Heather Thomas'. As can be seen from the first exercise the wordlet has quite a large font size (and well readable), but there seems to be just a few words available. So we first select a smaller font: the default is 56pt, we select 36pt. This can be done by either using the size pull-down box, or using the two buttons ('A' and 'ᴀ'). We also want to make the words slightly more 'robust', so we also select the 'Bold' button.

Next, let's increase the **amount** of words a bit. First click on the 'Shape' button to show the amount and size controls. The number of words depends of course very much on the amount of text in the input file text. The pre-installed text file has quite some range: 1329 different words are available. This can be checked by moving the 'Amount' slider fully to the right. For this exercise we select a modest 200 words, by moving the slider to this value. It's not so important

how many words are exactly used, so if the slider is set to e.g. 216 this also a good choice. In combination with the smaller font size we can now expect a good mask-fill with words.

Finally we select a **mask** .The easiest way is to simply select a mask make choice from the drop-down box below the mask area. A total number of 70 masks are pre-installed. We select the 'Sailboat' mask (called 'm_Sailboat' because all masks have a prefix 'm_'). When no mask is selected Wordaizer will simply create a rectangular shape, as we have shown in the first exercise. To make your own mask then first click on the 'Mask' button and make the 'Mask' tab active and start drawing with your mouse.

And then we press the 'Start' button again, and wait for the wordlet to create. The result is seen in the picture below.
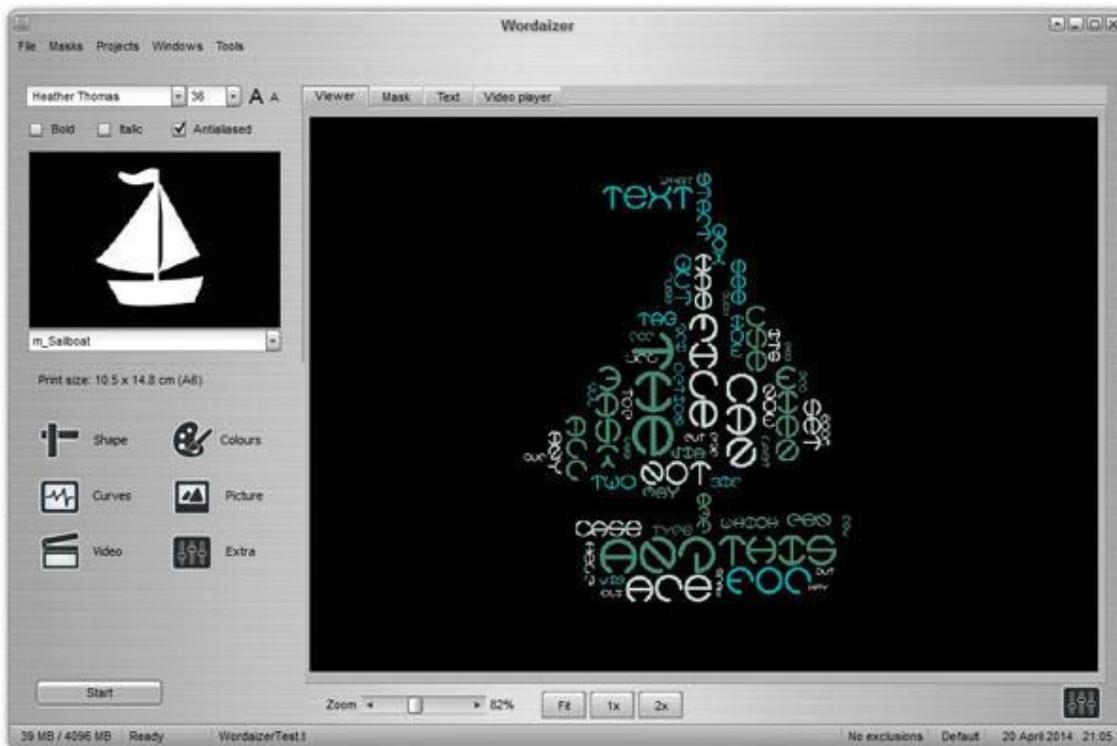
Lesson 3: Changing the colour palette

Once a wordlet has been created, the colour can be modified. First click on the 'colours' button. You will find two control groups: the 'colour palette name' and the 'Background colour'. Let's first change a colour pallet: simply change the colour pallet name, e.g. 'Giddy', or 'Space Fruit'. You will notice that the colour change is immediate. Then select a different background colour. To change this colour, use the slider: press on the left slider arrow, it will change the background colour to white. Click again: it will now select colours from the palette. When a colour of the palette is selected some words may of course become invisible, since these words have the same colour of the background. Below you see some of the effects of the colour changes. Please note that the wordlet has *not* changed when changing the colour palette this way.

Lesson 4: Create my own mask

You may want to apply your own mask, instead of using a pre-installed mask. Basically that is *very* easy to do. Follow these steps:

- Select the tab 'Mask' and click on the 'Mask' button as well. You will now see a couple of mask control buttons in the pop-up window.
- Make sure the radio-button is set to 'Draw'. Use your mouse to draw your mask in the big black work area. Your mouse will paint white lines on a black background. White is the area where words will appear.
- The 'Pen thickness' will change your drawing pencil in the mask. To erase parts of the mask change the radiobutton from 'Draw' to 'Erase', and a black 'pen' will be used. To fully reset the mask simply select 'Mask' 'Reset mask' via the menu bar.

When you start drawing the mask name will change to 'On-the-fly-mask' and it will become active. Now press the 'Start' button again and see your own mask in the wordlet. The picture below shows such a result.

If you have already a picture that you would like to use as a mask, it needs to be a true black and white picture. Meaning: only 100% black and 100% white pixels should be present (black = pixel value 0, white = pixel value 255). The size ratio of the mask is of importance. Ideally the ratio *"width : height"* should be *"1.4142 : 1"* (the ISO ratio for the A paper sizes). When this is not the case the application will force the correct ratio, adding black to the size that is too short to fit in the correct ratio. To add the mask, use the menu 'Mask' 'Load mask'. The mask name

must have a prefix 'm_' to be recognized by the application next time the application is started. If not, then the user mask is not loaded in the mask selector (as we use in lesson 2). Make sure you choose a name that is not already used by the 110 pre-installed masks!

Lesson 5: Changing the word orientation and density

Now the real fun part starts. The 'Density' is a measure of how tight the words are put together in the mask space: a high density will try to fit in as many words as possible, while a low density will allow for some space between each individual word. The default value is 50%, so we first change this value to 10%, and then to 100%. We also change our font to 'Julee', and uncheck the 'Bold' option to have crisp words. Then create a new wordlet for each of these settings. The result is seen in the picture below. The picture on the right clearly shows more words 'cramped' in the same mask space.
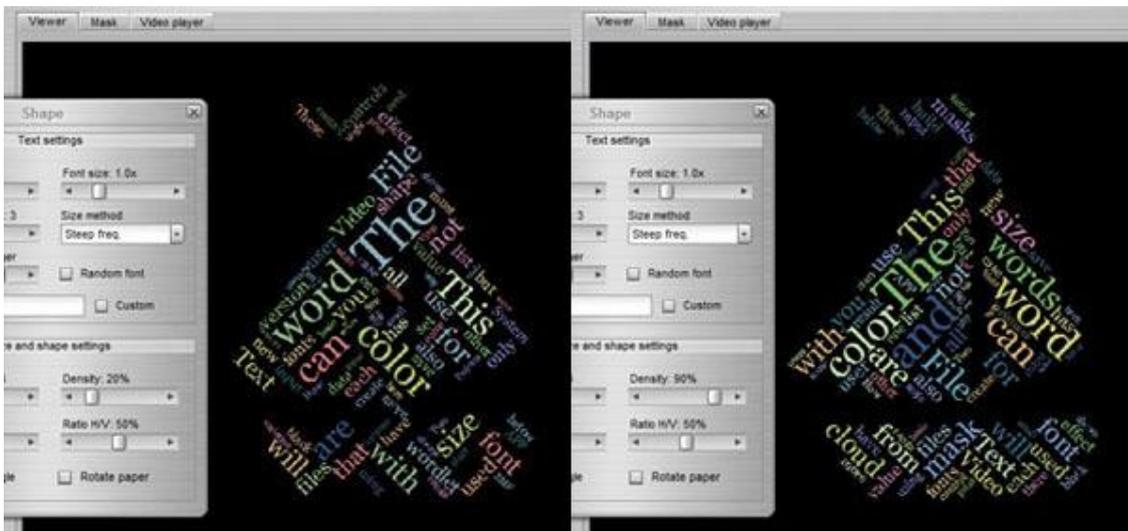
To change the orientation of the words is equally simple: change the slider value of 'Ratio H/V' to the value you want it to be. To explain this slider: when H/V is 0 then all words are placed vertically; when the value is 100, then all words are positioned horizontally. The result is seen below (also the 50% value is shown here, middle picture).

Lesson 6: Changing the word sizes in the wordlet

In most cases the size of each individual word in the wordlet is pretty well managed. The font size of each word in the wordlet depends on how frequent that word is found in the input text

file. The most frequent words are put with a large font size, and with decreasing frequency the font size decreases. The degree of which the font size decreases with frequency can be set. This exercise shows how to play with these 'Size method' (as it is called in the application). You also need to click on the 'Shape' button again to get the controls for this exercise back in view.

But first, a lesson in math. The steepness of how the font size decreases follows a certain mathematical formula. The steepness can change *linearly* or with a *curve*. Linear means that the size of each next word that is placed, gradually decreases with the same amount of the decrease of frequency, compared with the highest frequency that was found. Difficult? We hope not. For example: the first word has a frequency of 25 times, and the font size was set to 56pt. The next word has a frequency of 20 times, so 20/25 times the font size is then used, or the second word will be put with a font size of 20/25*56 = 45. So, a *curved decrease* means that the decrease of the font size goes faster than the relative change of frequency. For instance, the curved 'Size method' would then put a smaller font, e.g. 42pt, or even lower 40pt instead of 45pt for the linear size method (called 'straight' in the application).
We have given our 'Size method' fancy names, like 'steepest', 'steep', curved', and 'straight' . Straight is the same as 'linear', as explained above. Steepest is a very steep curve, where the font is decreasing the fastest with lower word frequencies. Enough math, and lets try this at home.

In the example above we have selected (left to right): 'steepest', 'steep', 'curved' and 'straight'. Especially the 'steepest' frequency engine shows a few large words and many small words, because the size is steeply decreasing with decreasing word frequency. For the other three sailboat results differences can be seen, but is not so outspoken as the 'steepest' setting.

Alternatively a second type of size method can be selected, where not the word *count* (= frequency) is used for setting the word size, but the *rank*. The ranking is calculated using the same frequency data: the word having the highest word count is ranked 1, the wordt having the second highest word count is ranked 2, etc. The size engines then follow the relative size decrease with decreasing rank.

Lesson 7: Using different colour methods

Again press the 'colours' button. After installation only the top colour method is opened. The other can be opened by clicking on the little arrow next to the name boxes: 'colour variations' and 'colour schemes'. These are two different methods to select a colour palette for the wordlet. These two methods are fully open, meaning you can select any colour base and variation of the

base colour you want. The difference between the two colour engines is the way the colour palettes are created:

- Colour variation: a base colour is selected and a number of hue variations is determined (the hue is set by the 'colour variation' slider, ranging from 0% to 100%).
- Colour schemes: a number of theoretical colour harmonization palettes is used (the harmonization type is selected by the pull-down box).

You can vary the settings in the two alternative colour methods as you like. The final colours that are used are always shown for each method. You need to check the tick box 'Use this colour scheme' to activate that colour scheme. Otherwise the default ('colour palettes') will be used again. One little note: the setting for 'Background colour' in the 'colour variation' scheme sets the colour in both alternative schemes, but not the 'colour palettes'. Confusing perhaps, but it's useful to know. We have no examples in this tutorial, and you can play around for yourself and see the effects.

Lesson 8: Using multiple fonts in one wordlet

In some cases you want to use more than one font. One way to do this is to use the mask feature (see here). We are using *more than two fonts*. First, open the 'Text' tab, and click on the 'text edit & font selection' header. This now show the fonts selection interface (see picture below).
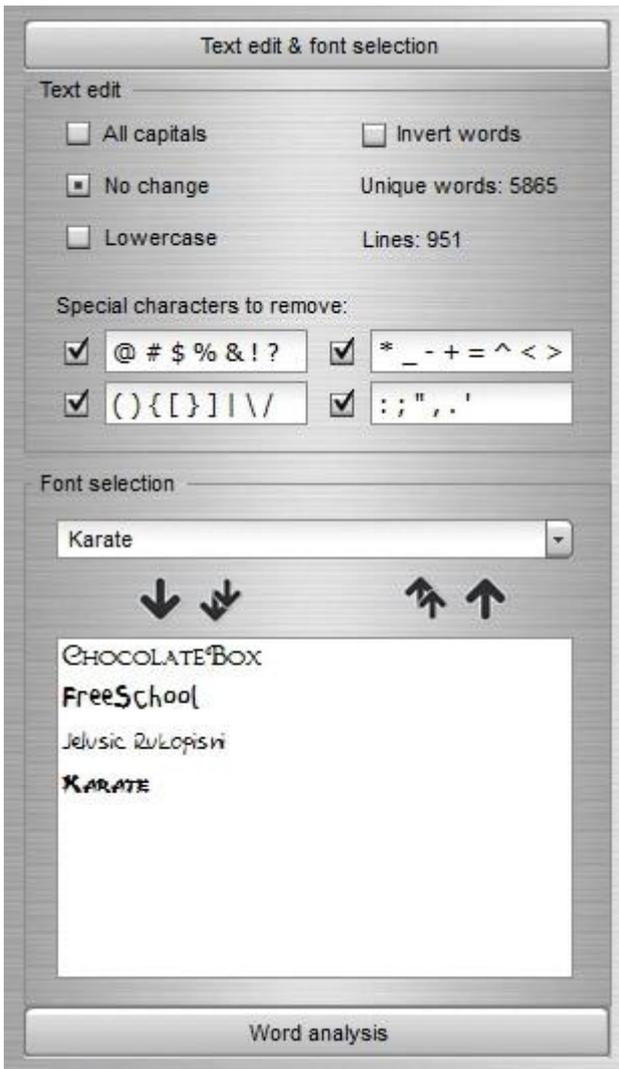
We will now select 4 fonts from the drop-down font box, and with each selection we click on the 'down arrow' button. We have selected these four fonts: Chocolate Box, Free School, Jelusic Rukopisni and Karate. All other settings can remain as they are. We have now selected 4 fonts, meaning: the 'multiple font' feature has become active. Now press the 'Start' button, and enjoy the great result (shown below).

Finally, press the 'double-down' arrow, adding all the available fonts to the font selection list. And then make a wordlet. You be surprised how quick this is made, and how very special the wordlet looks like. You can change colours just like any other wordlet (with one font), and save the result as .pdf. One word of warning: when saving as .pdf that file can become huge, because it embeds the fonts used. We did some tests, and it appears that when embedding several hundreds of fonts in the .pdf file will not always produce a perfect scalable replica of the original wordlet in Wordaizer. We couldn't find a suitable explanation on the internet, so please be aware that huge amounts of fonts in .pdf might lead to some words missing or wrongly put. Finally, it's not practical to save as .emf file since you can only use one font for an .emf file.

Lesson 9: Practitioner levels: further tweaking

In this lesson you will experiment with the text editor: the character removal list and the Notepad Editor. Let's start with the character removal list. First open the text tab: click on the tab 'Text'. On top left you see the 'Text edit' options group. The pre-installed 'list' of removed characters is conveniently separated into 4 groups: @ # $ % & ! ? and ( ) { [}] | \ / and : ; " , . ' and * _ - + = ^ < >. Although a space is put between each of these characters, it's not part of the removal list. The space is always used to separate words from each other, while the tilde (~) sign is used to keep two words together as one placement string. For that reason you won't see the ~ sign in this removal list. To activate a group of characters, sinply check its box. You can edit this list, it has no consequences for your character removal list. All the characters in these 4 boxes are added as the one and only removal list, added with the one in the 'Word analysis' block.

First, let's make a baseline wordlet. Check all the 4 boxes, and run a wordlet (left picture below). Now add the 'lowercase' vowels to the Word analysis block ('aeiuoy'), and create a wordlet (right picture below). You will clearly see differences in result.

Next we will use the Notepad Editor this editor: right-click in the table, bottom-left of this tab. Select 'Open source file in Notepad' , this will open the Notepad Editor. Is it a true Notepad, as you are used to in Windows? Yes and no. Yes, because it looks and feels the same; and no, because it's not the Windows Notepad.

Let play around with capitals: select the 'Edit > Lowercase all words'. This effective remove all capitals from the entire text. The change is instantly, unlike the 'Word analysis' and 'Text edit' groups, where the results are only shown after a full wordlet creation. To update the changes in the Notepad Editor into the application, you first need to press 'Update to Wordaizer'and click OK. You will now see that also the words list on the left is updated with words without capitals. Running a wordlet will result in the left picture below.Keep the Notepad Editor open, and now select 'Edit > Capitalise all words', update to Wordaizer and run a wordlet: right picture below.
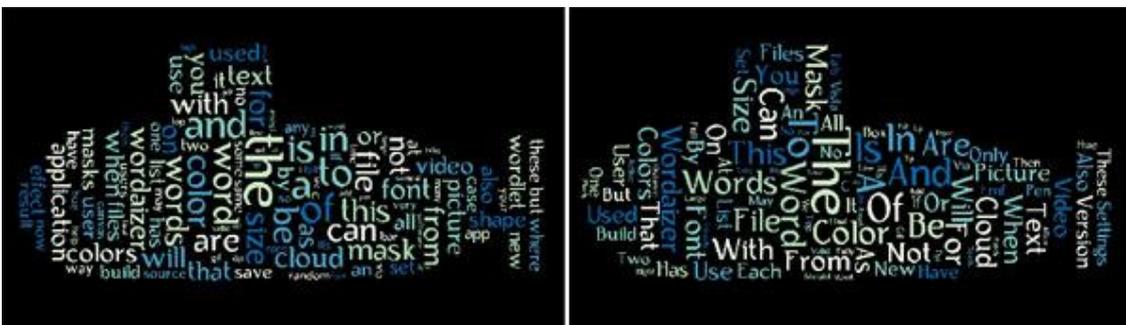
## Lesson 10: Editing a word could

Every word cloud can be post-processed: change the colour of each word, and add new words in the still available 'empty' spaced. To edit a ready word cloud you need to understand how the interface works: the use of the ALT and CTRL keys is required (and the mouse of course).
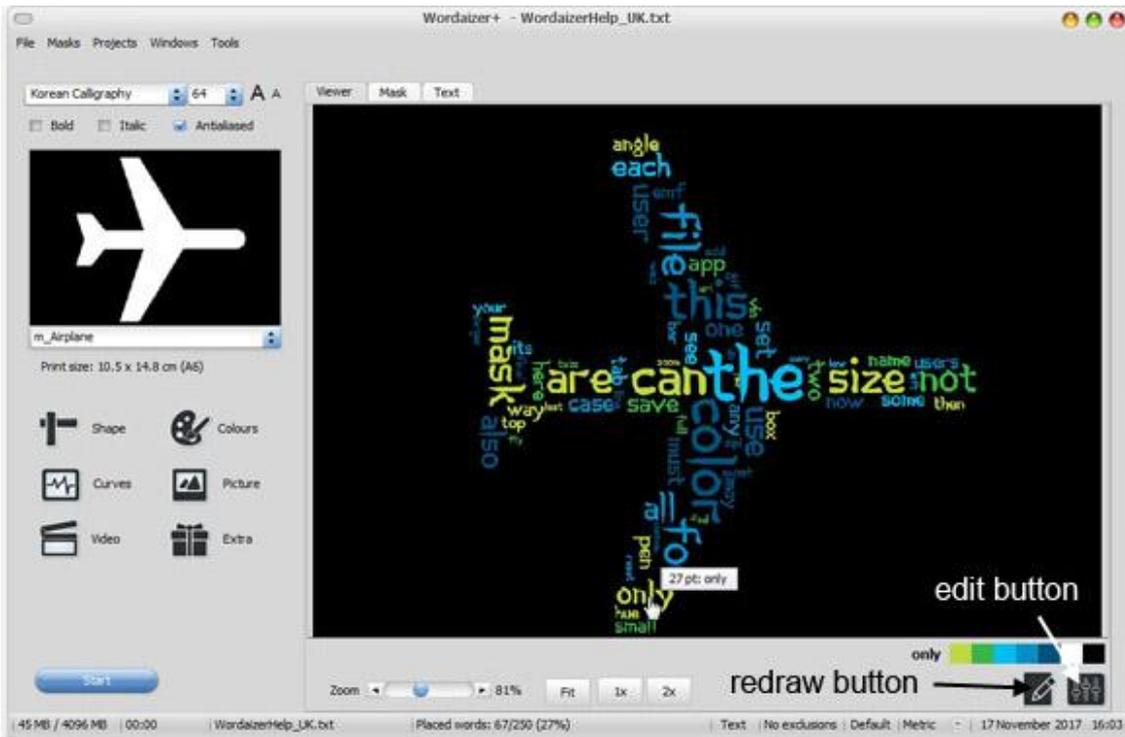
In the above screenshot you can see the hand cursor, and a little adjacently placed information box with the currently selected word and the font size ('27 pt only'). This hand cursor will appear when you press the ALT key and move the mouse pointer over a word. The information box will show '. . .' when an empty spot is detected (i.e. background colour). So, also inside a single character, empty spaces can be found, and moving your mouse pointer across a word might show empty spots for several times. To change the colour of the selected word, press the edit button, top bottom. This will show the word and the possible colours of the selected colour scheme.

To change the colour you now have to actively use the ALT and CTRL keys, while moving your pointer over the colour patches at the bottom. Below you see a few colour edits:
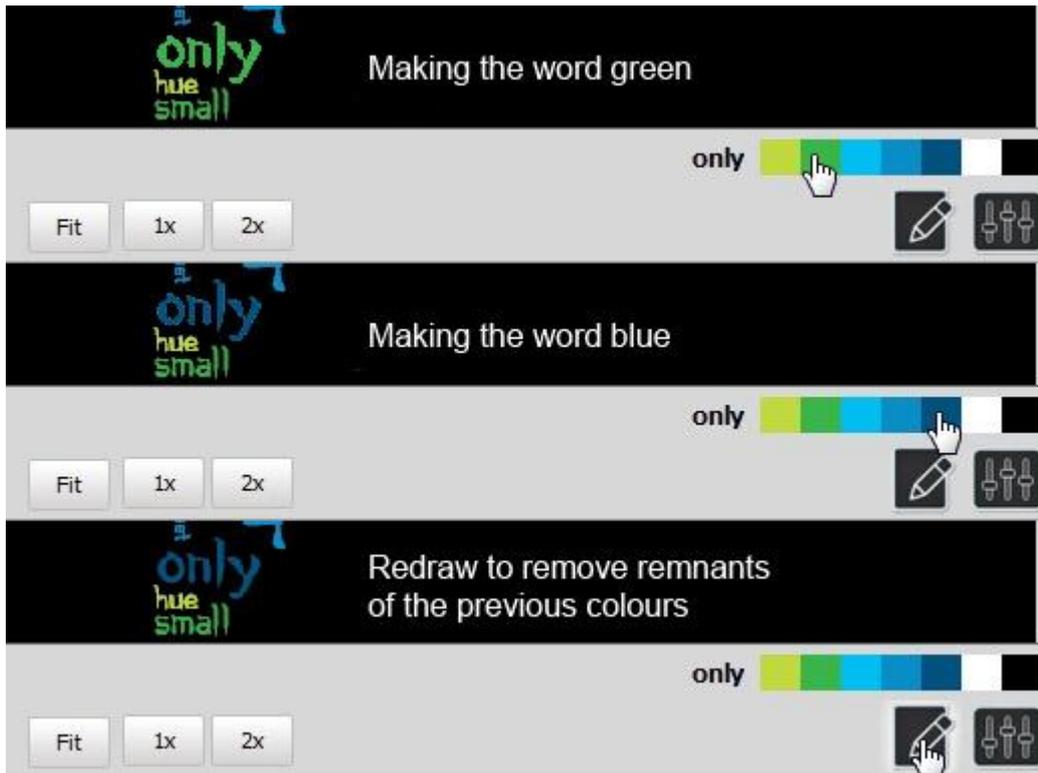
From top to bottom, we show two times a change of word colour (green -> blue) and finally apply the redraw action, to get rid of the remnants from the previous colours. This is needed because the words are drawn as transparent pixels, where the pixel towards the edge of each character becomes slightly transparent (a kind of anti-alias approach). Although the redraw is instantaneous, it still depends on the amount of words and the (bitmap) size of the word cloud. For e.g. A0 sizes this might take seconds, so please have a bit of patience when redrawing is done.

The changes are saved, so when you save the result in a project file, all the current visible words and colours are saved as well. The colour changes cannot be undone (e.g. using the CTRL+Z key). To set the colours back you need to manually change the colour back again.

Lesson 11: Expert levels: tweaking to the max

With the first 9 lessons you should be able to make a great wordlet. There are a few tweaking options that should be used when you want to quickly tune, alter and experiment with a wordlet. These are the controls you should try to master:

- 'Font size' (in the 'Text settings' box in the 'Shape' window): this slider will quickly increase or decrease the selected font size. It's an alternative way to set the font size (as in lesson 2). The effect can be quite drastic because it simply magnifies the selected font size with the indicated value. A value of 3x will set the font size of 56pt to 3x56 = 168pt.
- 'Min word length': some words in the input text are very common, like 'the', 'a' or 'and'. To filter out these words in a quick way you can set the minimum word length to a value of e.g. 4. This way also important words might be left out... but that's a risk you need to take. Setting this value too high (e.g. 8) may lead to incomplete wordlets because too many words are filtered out. An alternative way to filter words is to offer an exclusion list to the application ('File' 'New exclusion list', but is only available for licensed users).
- 'Size range': this sets the range of the word size. Remember lesson 6 where the range 'steepness' is set? Here also the actual range can be set. The size range is determined by

the font size as indicated in the application (e.g. 60pt) and the lowest font size. The setting of 'Smallest' will set the lowest font size 1/5th of the selected font size (so: 60/5= 16pt). The value of 'Biggest' will set the range to 60/9 = 7pt. And a 7pt font is very hard to print in a readable way, so be careful.

- 'Word angle' sets the general angle of each word. With Wordaizer 3.0 the new placement engine is as fast as a normal word placement. You could also try the word bending options (but only for licensed users).

Epilogue: What else is there to do?

Wordaizer has many more features. All features are explained in the other chapters. To mention a few:

- Page size. The default is A6 ISO, very small but perfect for creating pictures in documents, presentations etc. The maximum size is A4 for free users, and A2 for licensed users.
- Custom word. If you want to only use one word, type that word in the box, activate the 'Custom word' option and see what happens.
- Manual override of the font size. This can be done in the 'Text' window (press the 'Text' button). Don't forget to check the tick box 'Use edited values'.
- Video. Please read the video help. It's pretty accurately described with lots of examples and pictures.
- Add more words. Please read the chapter on word cloud editing how to do this.
- Use input file with predefined word size. Below you see an example of a file format that contain single words and it frequency (or size, or whatever size engine you have selected). Please make sure you use the ':' to indicate the frequency number, and use the '~' sign to keep words together (the '~' sign will be replaced with a space in the wordlet).

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Alpha: 1
Bravo: 2
Charlie~Brown: 3
Delta: 4
Echo~Echo~Echo: 5
Foxtrot: 6
Golf~Course: 7
Hotel: 8
India: 9
Juliet: 10
Kilo: 11
Lima: 12
Mike~Molly: 13
November~Rain: 14
Oscar: 15
Papa~Mama: 16
Quebec: 17
Romeo~Juliet: 18
Sierra~Ñevada: 19
Tango: 20
Uniform: 21
Victor: 22
Whiskey~Malt: 23
Xray: 24
Yankee~Doodle: 25
Zulu: 26
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