Karithina's Guide to Making Speech Bubble Styles

(**Update:** Guide now clearer and also available on my Shrines>Creatures>Bubbles page on 4o4.au!)

This is a guide on how to make your own custom speech bubble styles for Aiko's Speech Bubbles Upgrade 1.2 (released in CCSF 2021).

Aiko's video explains more about them (YouTube).

Contents:

Folder Organisation

It helps to make a template folder arrangement first, to make later zipping (for sharing) and installing easier. I made a folder layout like this:

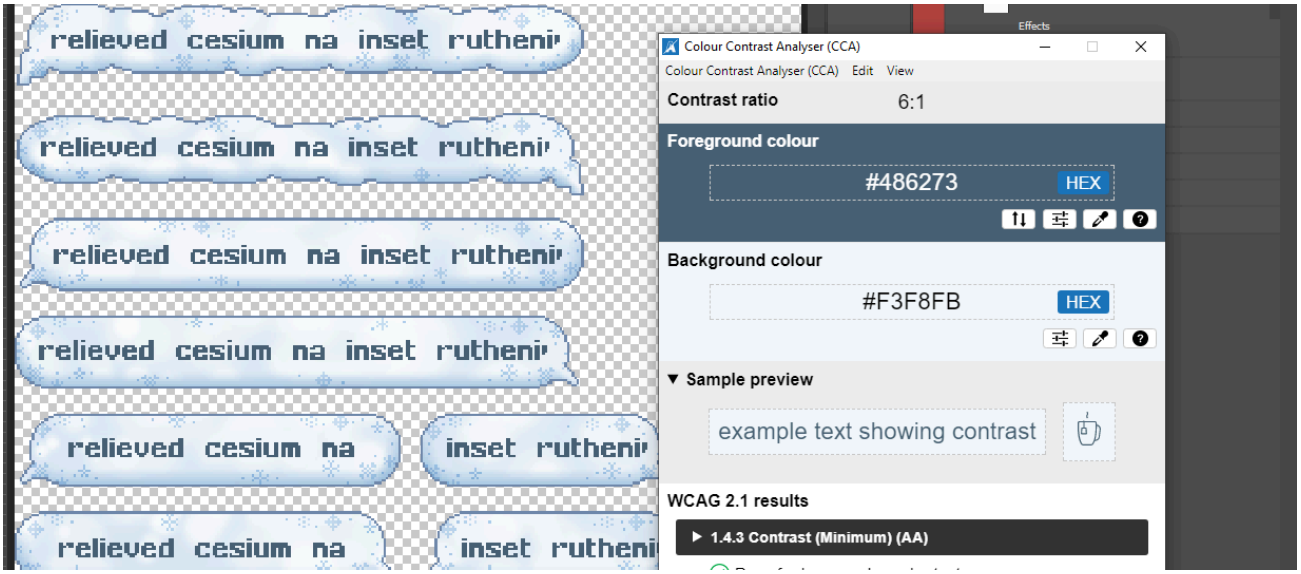
- Speech Bubbles **STYLENAME** Style folder
  - Bootstrap folder
    - 022 Speech Bubbles folder
      - speech_bubbles_style_**STYLENAME**.cos
  - Images folder
    - **YOU_HEX_STYLENAMECOLORNAME**chars.s16
    - **YOU**_speech_bubbles_**STYLENAME**.c16

I set my .cos file up with any changes I want to make across all files so that when I make additional styles I can just replace the word **STYLENAME** throughout with the name of the style, and **HEX** with the colour of the font.

Default Bubble Sprites	23/12/2021 5:40 PM	File folder	
DS Default Font	25/12/2021 12:07 AM	File folder	
Speech Bubbles Bubbly Style	24/12/2021 5:42 PM	File folder	
Speech Bubbles Galactic Style	24/12/2021 2:56 PM	File folder	
Speech Bubbles Grendly Style	24/12/2021 4:50 PM	File folder	
Speech Bubbles Halloween Style	24/12/2021 5:42 PM	File folder	
Speech Bubbles STYLENAME Style	25/12/2021 8:30 PM	File folder	
Speech Bubbles Bubbly Style.zip	25/12/2021 12:53 AM	WinRAR ZIP archive	32 KB
Speech Bubbles Galactic Style.zip	25/12/2021 12:53 AM	WinRAR ZIP archive	23 KB
Speech Bubbles Grendly Style.zip	25/12/2021 12:53 AM	WinRAR ZIP archive	34 KB
Speech Bubbles Halloween Style.zip	25/12/2021 12:53 AM	WinRAR ZIP archive	34 KB
speech_bubbles_agent_custom.cos	3/12/2021 6:51 AM	COS File	2 KB
speech_bubbles_style_custom.cos	3/12/2021 6:52 AM	COS File	3 KB

Editing the .psd File Spritesheet

I've made a spritesheet.psd with outlines broken out easier for photoshop layers, and example text, and then I just hide the text layer and save for web as a .png file.



When I'm designing I'll check my text-to-background-colour contrast with a tool called the Colour Contrast Analyser (CCA), just because it's nice to ensure you're being accessible, and helps you avoid having hard to read bubbles.

So in short, to create the bubble (.c16 file):

1. open spritesheet.png/psd
2. edit as you wish
3. save out as a .png

Unpacking the .png File Spritesheet

"If you have a tool to unpack spritesheets, you can edit spritesheet.png and then unpack it again using the spritemap in sprites.json before converting it back to .c16. Leshy SpriteSheet Tool is a nice simple one if you are comfy with node! Otherwise, you can just edit the sprites the old fashioned way" - Aiko

Aiko's video on spritesheet work.

Bmarwane Sprite Splitter Method

To do this web method:

1. go to https://sprite-splitter.bmar1.com/
2. select ‘Import a sprite’
3. select your spritesheet.png
4. select the bubbles in order (to make file names less confusing) which is thought bubbles first then smallest to largest and with left then right at each size, so:
    a. 234x37 mouth-on-left (thought);
    b. 234x37 mouth-on-right (thought);
    c. 105x32 mouth-on-left;
    d. 105x32 mouth-on-right;
    e. 158x32 mouth-on-left;
    f. 158x32 mouth-on-right;
    g. 233x32 mouth-on-left;
    h. 233x32 mouth-on-right;
    i. 322x32 mouth-on-left;
    j. 322x32 mouth-on-right;
    k. 322x43 mouth-on-left;
    l. 322x43 mouth-on-right.

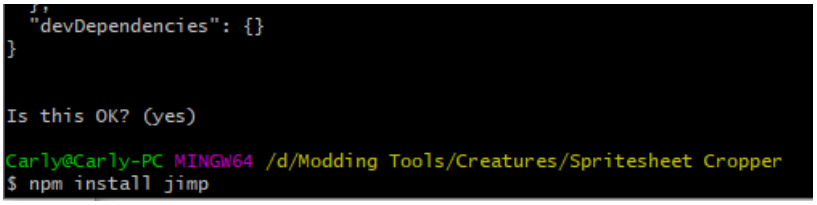
5. select ‘Download’ (you may get prompted about a multiple file download the first time because it downloads as multiple files rather than a .zip)

Leshy SpriteSheet Tool Method

I'm currently (as at Nov 2024) having issues getting Leshy SpriteSheet Tool to work because of a jimp error when I run crop.js, but just in case the instructions still work for you…

If you haven't already, there's some initial setup:

1. **download** Leshy SpriteSheet Tool and place it somewhere you might like to keep modding or tools
2. **install** Git Bash (or your preferred terminal)
3. **open** the Git Bash terminal
4. **navigate** to the folder you have Leshy SpriteSheet Tool in by typing *cd* and right click dragging the folder into Git Bash to save time and put in the file path automatically. It should show up as something similar to `cd 'd/Modding Tools/Creatures/Leshy Spritesheet Tool'`
5. the following two npm steps only need to be done the first time you use this tool to initialise it:
    a. **type** `npm init`
    b. **enter** a few times to go through the utility until it gets to 'Is this OK? (yes)'
    c. **type** `npm install jimp`



If you don't already have a sprites.json with the correct sizing for the bubbles to crop to:

1. go to https://www.leshylabs.com/apps/sstool/
2. drag your packed spritesheet into editor window
3. use automatic chunks recognition by Remap button
4. download final repacked spritesheet and put it to crop script folder. Rename it to spritesheet.png
5. select JSON config format for the sprite map.
6. select Save button and download final sprites.json config.
7. put it in your crop script folder and rename to sprites.json if needed.

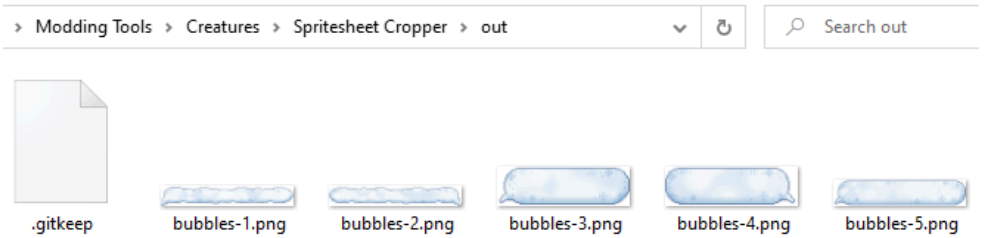
If you have already done those initial setup steps before:

1. open the Git Bash terminal
2. navigate to the folder you have the tool in by typing *cd* and right click dragging the folder into Git Bash to save time and put in the file path automatically. It should show up as something similar to `cd 'd/Modding Tools/Creatures/Leshy Spritesheet Tool'`

Now:

1. overwrite the spritesheet.png in the Spritesheet Cropper folder with your updated bubble
2. **type**: `node ./crop.js`

3. this will fill the /out folder with the cropped .png files

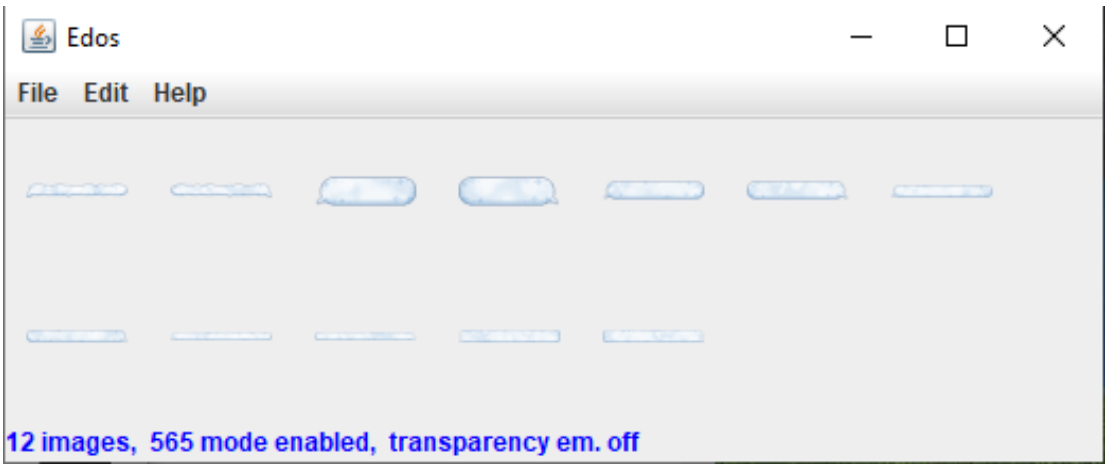


Compiling the .c16 File

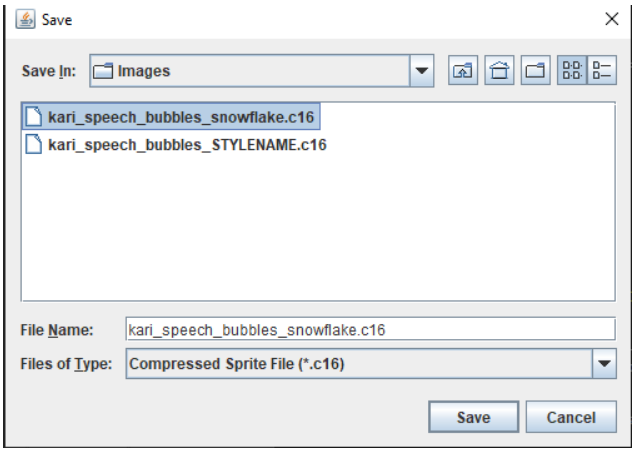
Alright, now that you have your individually cropped files you're going to stick them all together again!

Steps:

1. open **Edos**
2. **drag** the cropped bubbles-#.png files into Edos, one by one in numerical order because if you drag them all in at once it messes up the order. If you want to just drag them all in at once, then rearrange them in Edos and ensure the order of the bubbles is thought and then smallest to largest and with left then right at each size, so:
    a. 234x37 mouth-on-left (thought);
    b. 234x37 mouth-on-right (thought);
    c. 105x32 mouth-on-left;
    d. 105x32 mouth-on-right;
    e. 158x32 mouth-on-left;
    f. 158x32 mouth-on-right;
    g. 233x32 mouth-on-left;
    h. 233x32 mouth-on-right;
    i. 322x32 mouth-on-left;
    j. 322x32 mouth-on-right;
    k. 322x43 mouth-on-left;
    l. 322x43 mouth-on-right.



3. **file > save** this as a .c16 file (I name mine like ‘YOU_speech_bubbles_STYLENAME.c16’, so ‘kari_speech_bubbles_galactic.c16’)



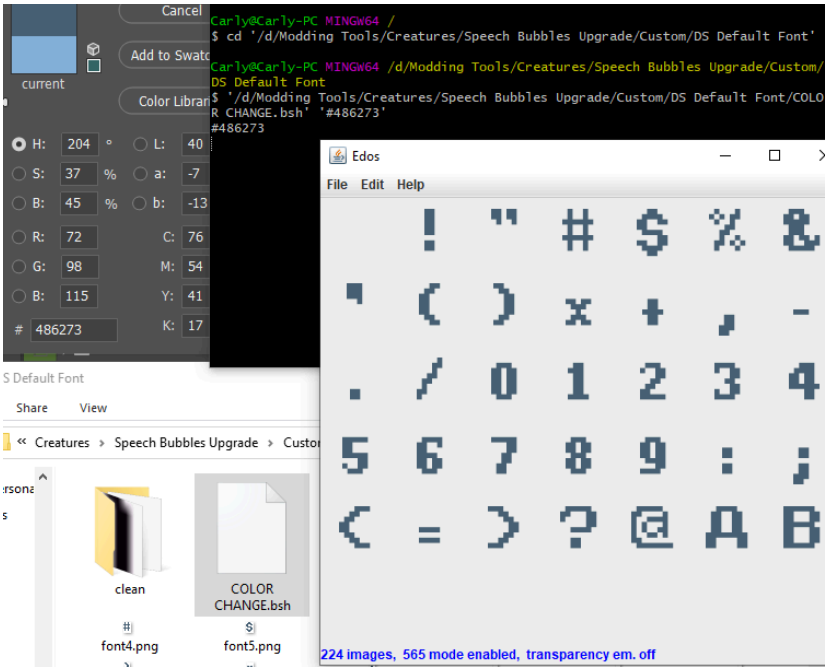
Recolouring for .s16 File Font

For your font (.s16 file), first ensure you have installed [ImageMagick] and [Java].

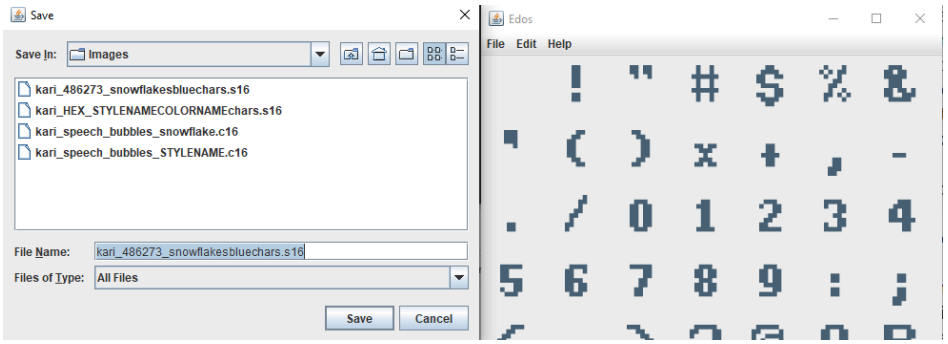
I already had Java installed and installed ‘ImageMagick-7.1.0-19-Q16-HDRI-x64-dll.exe’ with legacy options ticked in the setup, I had to run the setup as an administrator to avoid an error about not having SP1 (wasn’t sure if that was important, but just in case anyone has issues).

Steps:

1. **navigate** to the folder you have the DS Default Font in with `cd 'LOCATION/DS Default Font'`
2. **run** the COLOR CHANGE.bsh script with `'LOCATION/DS Default Font/COLOR CHANGE.bsh' '#HEXCOLOR'`
3. you’ll know you’ve typed it correctly when the terminal follows up with a #HEXCOLOR, and then Edos will open with the recoloured font all neatly there for you.



4. **File > Save** this as a .s16 file, I name mine like ‘YOU_HEX_STYLENAMEchars.s16’, so ‘kari_8f8fca_galacticpurplechars.s16’ for example.



5. If you’re not making any more styles, you can now close out of your terminal and move onto the .cos file editing!

Some existing colours I’ve already made in case it saves you some editing:

- kari_2f638b_bubblybluechars.s16
- kari_8ee567_grendlylimechars.s16
- kari_8f8fca_galacticpurplechars.s16
- kari_833b03_goldbrownchars.s16
- kari_486273_snowflakesbluechars.s16
- kari_c0e09b_leafygreenchars.s16
- kari_FF8D3B_magmaredchars.s16
- kari_ffb055_halloweenorangechars.s16
- kari_eaff00_neonyellowchars.s16

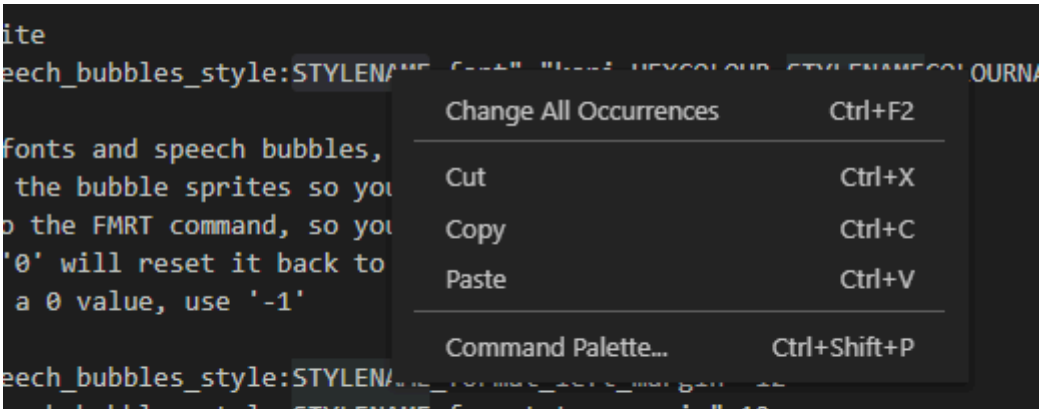
There is a default black and white:

- BlackOnTransparentChars.s16
- WhiteOnTransparentChars.s16

Configuring the .cos File

Steps:

1. **open** the .cos file in your favourite code editor (Notepad, Notepad+, Visual Studio Code, etc).
2. **replace STYLENAME** throughout with your style name, and check all file name mentions match your files.




```
* This is the most important! It must be set to 1 (or greater) in order to show up in the
* styles menu and be useable.
setv game "speech_bubbles_style:snowflakes" 1

* custom speech bubble sprite
sets game "speech_bubbles_style:snowflakes_sprite" "kari_speech_bubbles_snowflakes"

* this is the ID of your SECOND-TO-LAST. frame in your sprite, the first image
* of your largest pair of bubbles, two less than your total number of frames.
setv game "speech_bubbles_style:snowflakes_sprite_frames" 10

*the font sprite
sets game "speech_bubbles_style:snowflakes_font" "kari_486272_snowflakesbluechars"

*with custom fonts and speech bubbles, sometimes the words don't line up
* nicely with the bubble sprites so you can adjust that here.
* These map to the FMRT command, so you can reference that.
* a value of '0' will reset it back to the default (12 12 12 5)
* If you want a 0 value, use '-1'

setv game "speech_bubbles_style:snowflakes_format_left_margin" 12
setv game "speech_bubbles_style:snowflakes_format_top_margin" 12
setv game "speech_bubbles_style:snowflakes_format_right_margin" 12
setv game "speech_bubbles_style:snowflakes_format_bottom_margin" 5
setv game "speech_bubbles_style:snowflakes_format_line_spacing" -1
setv game "speech_bubbles_style:snowflakes_format_character_spacing" -1
setv game "speech_bubbles_style:snowflakes_format_justification" -1
```

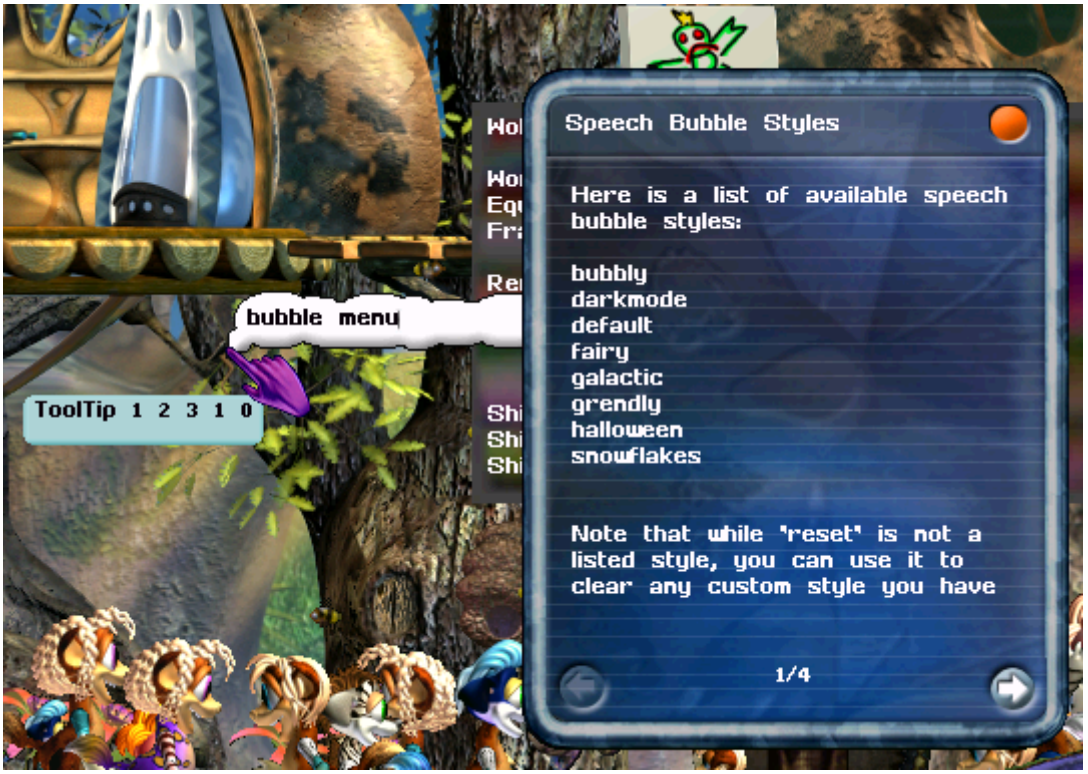
Installing the Speech Bubbles

If you set up your folders correctly, you should be able to zip up your style at this point to share wherever!

Test as follows:

1. if set up correctly you should be able to just copy in and file merge into the right location. **copy** the .cos, .s16 and .c16 into your relevant folders:
    - Bootstrap
        - 022 Speech Bubbles
            - speech_bubbles_style_**STYLENAME**.cos
    - Images
        - **YOU_HEX_STYLENAMECOLORNAME**chars.s16
        - **YOU**_speech_bubbles_**STYLENAME**.c16
2. **start a new world** to have it load the .cos.
3. Ensuring you have Magic Words Core installed, then **type ‘bubble menu’** to check that your bubble style shows up in the list (as talking not as CAOS), and ‘bubble STYLENAME global’

to see how it looks on all creatures (or whichever bubble command you'd like to use to test).



Enjoy making custom bubbles!