## Tile Editor Multi Color \{low\} Graphic Version 1.1.0

## \{ 3x3 characters, full sprite, 24x21 bytes \}, lived. ch, 16.03.2024

With this little tool you can create tiles or any other graphic elements, with the size of $3 \times 3$ characters \{actually $3 \times 2 . x$ or $24 \times 21$ bytes\}, using SPRDEF. SPRDEF, part of C128 OS, itself is for definition of Sprites, but you can use it literally for everything on top of that.


Preview is showing 1 Sprite $\{3 \times 3$ characters $\}$ and then 7 copies using other sprites. This is done in assembly to speed things up. Copy progress is just way too slow in Basic. This routine is located at $\$ 1800$ and loaded with bload"tools2.bl" It will load just once and then do the copy each time you start the main program in Basic.

Sprite copy code:

| 00 | a9 | d8 |  | lda | \# \$d |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 01502 | a 0 | 00 |  | ldy | \#\$00 |
| 01504 | a2 | 00 |  | $1 d x$ | \#\$00 |
| 01506 | bd | 00 | 0e | lda | \$0e00, |
| 01509 | 9d | 40 | 0e | sta | \$0e40, |
| 0150c | 9d | 80 | 0e | sta | \$0e80, |
| 0150 f | 9d | c0 | 0e | sta | \$0ec0 |
| 01512 | 9d | 00 | $0 f$ | sta | \$0f00 |
| 01515 | 9d | 40 | 0 f | sta | \$0f40 |
| 01518 | 9d | 80 | 0 f | sta | \$0f80 |
| 0151b | 9d | c0 | $0 f$ | sta | \$0fc0 |
| 0151e | e8 |  |  | inx |  |
| 151f | e0 | 63 |  | cpx | \#\$63 |
| 01521 | d0 | e3 |  | bne | \$1506 |
| 01523 | 60 |  |  | rts |  |

\{Copies complete Sprite one \{actual tile\} over to Sprites 2 to 8\}

One tile is $24 \times 21$ bytes, starting left corner, multicolor \{activate with M \}
Which means that 1 pixel horizontally is 2 pixels wide as you can see in this screenshot from SPRDEF below. Vertical resolution is the same, meaning 8 pixels.

All counted together:
You are working with full Multi-Color Sprite $=24\{\{12\}$ pixels wide $\} \times 21$ \{pixels high\}

## 4 Colors

1. Background \{transparent, \$d021,x or dec 53281,x\}
2. Color 2 - standard color
3. Color 3 -multicolor 1
4. Color 4 - multicolor 2

SPRCOLOR is setting multi-color values for all sprites \{graphic elements in this case\}, and SPRITE command is setting regular color of each sprite \{graphic elements in this case\} See Basic program for details.


You can use these graphic elements to create backgrounds in low-res mode of C128 (Graphic 3, $x$ and Graphic 4, $x, x$ \}

In SPRDEF you are drawing with numbers 1 to 4:
1 = Transparent
2 =Standard Color
3 = Multi Color 1
4 = Multi Color 2

You can now list lines 212-, change values in line 212 and 213, then type run 212 Try it out, change the values in DC, M1C and M2C registers and see the results!


Preview in Graphic mode?
Just type sys 4864 and see the tiles in Graphic 4 mode, Split-Screen >>> Hit ENTER to Exit Preview!
Poke 4982, color \#border color $\{B C$, Color 4, x\}
poke 4987, color \#screen color $\{S C$, Color $0, x\}$
poke 4992, color \#text color \{TC, Color 5, x\}
Poke 4970, color \#\$84 \{DC\} \{blue nose in example\}
poke 4974 , color \#\$85 \{M2C\} \{white mouth\}
poke 4978, color \#\$86 \{M1C\} \{light blue $\}$
Note that " Color 0, 1" is equal to poke 53281,0 or Ida \#\$00, sta $\$ \mathbf{d 0 2 0 1 !}$
Color start value is 1 and of poke and assembly is 0 .
That's why it's poke sc-1, to match the values and have the same colors!

Tile Editor Multi Color Graphic using COLOR RAM, \$1C00, for Graphic Modes
Included is Source code \{GFXSPLIT.ASM\} for Edass 128 where you can define individual colors using byte values as described within the source code.


