

# Contents

<b>Ditheridoo</b>	<b>2</b>
<b>Getting Started</b>	<b>2</b>
Standalone executable . . . . .	2
Python3 script prerequisites . . . . .	2
<b>Usage</b>	<b>2</b>
<b>File Format</b>	<b>2</b>
<b>Authors</b>	<b>3</b>
<b>License</b>	<b>3</b>
<b>Ditheridoo Cheatsheet</b>	<b>4</b>
GUI controls . . . . .	4
mouse control . . . . .	4
editing . . . . .	4
editor visuals . . . . .	4
left mouse-button color . . . . .	5
right mouse-button color . . . . .	5
color to replace (only when in draw mode ‘select’): . . . . .	5
notes: draw-modes . . . . .	5
<b>Changelog</b>	<b>7</b>
Future plans . . . . .	7
Changes in 1.0 . . . . .	7

# Ditheridoo

## Pixel By Pixel

Ditheridoo is a multicolor bitmap editor for Commodore 64. It runs on 64 bit versions of Linux, MacOS and Windows.

## Getting Started

Ditheridoo comes in two flavours:

- standalone executable for 64-bit systems Linux, MacOS/Darwin and Windows
- Python3 script

### Standalone executable

Just download your bundle and enjoy. Keep in mind that only 64bit systems are supported as I could not find a 32bit system to generate the bundle.

Note on Windows users: If some antivirus scanner puts Ditheridoo into quarantine because it suspects a trojan or virus, simply put it out there again. It isn't harmful, I used PyInstaller to bundle the standalone executable for you. Unfortunately, the PyInstaller bootloader triggers a false alarm on some systems. I even tried my best and re-compiled the PyInstaller bootloader so that this should not happen anymore. Keep your fingers crossed ;)

### Python3 script prerequisites

At least this is needed to run the script directly:

- python 3
- python tkinter module
- python “The Python Imaging Library” (PIL)

On my Debian GNU/Linux machine I use apt-get to install everything needed:

```
apt-get update
apt-get install python3 python3-tk python3-pil
```

## Usage

For a list of quick keyboard shortcuts and other information see file cheatsheet.

## File Format

The multicolor bitmap is stored in the widely-spread KoalaPainter (C64) format:

- 2 bytes load address
- 8000 bytes raw bitmap data
- 1000 bytes raw “Video Matrix” (screen) data
- 1000 bytes raw “Color RAM” data
- 1 byte background data

## Authors

- fieserWoLF/Abyss-Connection - *Initial work* - fieserWoLF on github fieserWoLF on CSDB
- Pararaum/The 7th Division - *example image* - Pararaum on CSDB
- Mirage/Booze Design - *example image* - Mirage on CSDB

## License

Ditheridoo multicolor bitmap editor for Commodore 64.

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For further questions, please contact me at <http://csdb.dk/scener/?id=3623> or [wolf@abyss-connection.de](mailto:wolf@abyss-connection.de)

For Python3, The Python Imaging Library (PIL), Tcl/Tk and other used source licenses see file LICENSE\_OTHERS.

# Ditheridoo Cheatsheet

## GUI controls

key	function
Alt+q	quit
Alt+o	open file
Alt+s	save file
Alt+c	configure
Alt+p	show preview window
Alt+h	this help

## mouse control

mouse action	function
right mouse button	set color
left mouse button	set other color
middle mouse button	scroll image
mouse wheel	zoom in and out

## editing

key	function
Ctrl+z	undo (single pixel editing only, not for block-commands like cut or paste)
Ctrl+x	cut
Ctrl+c	copy
Ctrl+p	paste
m	set marker
Alt+n	normal pencil
Alt+b	checkerboard dither pencil
Alt+x	x-line dither pencil
Alt+y	y-line dither pencil
Alt+l	light dither pencil

## editor visuals

key	function
plus/ minus	zoom in and out
cursor keys	scroll image

### left mouse-button color

key	function
0-9...a-f	select color
F1	screen-color-1 of block
F2	screen-color-2 of block
F3	colorram of block
F4	background

### right mouse-button color

key	function
Shift+ 0-9...a-f	select color
Shift+F1	screen-color-1 of block
Shift+F2	screen-color-2 of block
Shift+F3	colorram of block
Shift+F4	background

### color to replace (only when in draw mode ‘select’):

key	function
F5	screen-color-1 of block
F6	screen-color-2 of block
F7	colorram of block
F8	background
Space	no overwriting

### notes: draw-modes

Can be set in settings window. Behaviour if too many colors are used (color-clash):

mode	description
keep color	keep color if too many colors are used
replace color	replace color if too many colors are used
select color	overwrite selected data: screen-color1, screen-color2, colorram or background

mode	description
dye	do not touch bitmap, only overwrite color

# Changelog

## Future plans

- include new logo graphic (png with real transparency)
- new name: icon, small\_icon, logo, about\_picture : Pixel me like one of your French girls, DitherKing, pixeltron 3000
- resources in seperata files: icon, small\_icon, logo, about\_picture, config file with version
- adjust help and about text according to window size
- implement sanity check: accept only standard koala format files
- implement real undo for all functions
- implement hires drawing mode
- implement different pencil sizes

Any help and support in any form is highly appreciated. If you have a feature request, a bug report or if you want to offer help, please contact me:

<http://csdb.dk/scener/?id=3623> or [wolf@abyss-connection.de](mailto:wolf@abyss-connection.de)

## Changes in 1.0

initial release