

Link : <https://oblerion.itch.io/gba-engine> ver a0.1-2 2024

# Engine GBA

The gameboy advance like engine  
by Magnus Oblerion



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## Describe :

2d game engine made with C, raylib.h and lua.h .

egba = Tic80 api + 32bits upgrade + modern GPU optimization.

It's the synthesis of 7 years of game and framework creation,  
which is why (exceptionally) the sources are closed.

## Features:

- create cartbridge .egba
- load palette/sprite/script to cartbridge
- save cartbridge
- run script .lua outside cartbridge (same name)
- run cartbridge .egba
- load spritesheet .png 256x257
- export spritesheet (ctrl+E) -> sprite section
- export cartbridge to standalone game.exe (Ctrl+B) -> script section

## Spec:

- 5 palette color : 32 colors + alpha
- 256 sprite : 16x16
- lua script : 64000 char

## Fast start :

### setup cartbridge .egba

- Download palette image .png <= 32 color [lospec.com](https://oblerion.itch.io/gba-engine)
- launch egba.exe
- drag and drop image to window
- btn save create save.egba next to egba.exe, rename it with your project name

### load .egba

- launch egba.exe
- drag and drop it to editor

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## lua script

- create .lua next your .egba with same name.
- edit it with it

```
-- hello world example
function EGBA()
    print("hello world", 50, 50, 1, 20)
end
```

[full api](#)

## launch external script

- open cmd, tape it

egba.exe project.lua

it use .egba for load color and sprite

## load script to cartbridge

- launch egba.exe -> script section
- drag and drop it to editor

## export spritesheet

- goto sprite section
- ctrl + E

## load spritesheet

- drag and drop it to editor

## launch cartbridge with intern script

- open cmd, tape it

egba.exe project.egba

## build standalone game.exe

- launch egba.exe
- load cartbridge ,goto script section
- right ctrl+B -> project.exe

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## Lua api :

### Main

#### loop function

```
function EGBA()  
-- your code run 60/seconds  
end
```

#### log

```
trace("hi")  
-- print hi in console
```

### Graphics

#### clear screen

```
cls(0)  
-- clear screen with color 0 of first palette
```

#### print text

```
print("hello world",23,23,0,16)  
-- x 23, y 23, id color 0,font size 16
```

#### draw rectangle

```
rect(23,23,50,50,2)  
-- draw fill rectangle in x 23, y 23, width 50, height 50, id color 2  
rectb(23,23,50,50,2)  
-- draw line rectangle in x 23, y 23, width 50, height 50, id color 2
```

#### draw sprite

```
spr(1,23,23,2)  
-- draw sprite id 1,x 23,y 23,scale 2
```

# Input

## keyboard

```
if btn(0) then
-- if key down is down
elseif btn(1) then
-- if key up is down
end
if btnp(2) then
-- if key left is pressed
elseif btnp(3) then
-- if key right is pressed
end
-- id 0 : down, 1 : up, 2 : left, 3 : right
-- btn -> btn is down
-- btnp -> btn is pressed
```

## mouse

```
local x,y,btnl,btnm,btnr = mouse()
-- x = x mouse
-- y = y mouse
-- btnl = true/false mouse left button
-- btnm = true/false mouse mid button
-- btnr = true/false mouse right button
```

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