

**NAME**

**rgbasm** — Game Boy assembler

**SYNOPSIS**

```
rgbasm [ -EhLVvw] [-b chars] [-D name[=value]] [-g chars] [-i path]
[ -M dependfile] [-o outfile] [-p pad_value] [-r recursion_depth] file
```

**DESCRIPTION**

The **rgbasm** program creates an object file from an assembly source file. The input *file* can be a file path, or **-** denoting **stdin**. Its arguments are as follows:

- b** *chars*  
Change the two characters used for binary constants. The defaults are 01.
- D** *name*[=*value*]  
Add string symbol to the compiled source code. This is equivalent to *name* **EQU** "*value*" in code. If a value is not specified, a value of 1 is given.
- E**  
Export all labels, including unreferenced and local labels.
- g** *chars*  
Change the four characters used for binary constants. The defaults are 0123.
- h**  
By default, **rgbasm** inserts a ‘nop’ instruction immediately after any ‘halt’ instruction. The **-h** option disables this behavior.
- i** *path*  
Add an include path.
- L**  
Disable the optimization that turns loads of the form **LD [\$FF00+n8],A** into the opcode **LDH [\$FF00+n8],A** in order to have full control of the result in the final ROM.
- M** *dependfile*  
Print make(1) dependencies to *dependfile*.
- o** *outfile*  
Write an object file to the given filename.
- p** *pad\_value*  
When padding an image, pad with this value. The default is 0x00.
- r** *recursion\_depth*  
Specifies the recursion depth at which RGBASM will assume being in an infinite loop.
- v**  
Print the version of the program and exit.
- v**  
Be verbose.
- w**  
Disable warning output.

**EXAMPLES**

You can assemble a source file in two ways. Straight forward way:

```
$ rgbasm -o bar.o foo.asm
```

Pipes way:

```
$ cat foo.asm | rgbasm -o bar.o -
$ rgbasm -o bar.o - < foo.asm
```

The resulting object file is not yet a usable ROM image — it must first be run through `rgbblink(1)` and `rgbfix(1)`.

**SEE ALSO**

`rgbasm(5)`, `rgbfix(1)`, `rgbblink(1)`, `rgbds(5)`, `rgbds(7)`, `gbz80(7)`

**HISTORY**

**rgbasm** was originally written by Carsten Sørensen as part of the ASMotor package, and was later packaged in RGBDS by Justin Lloyd. It is now maintained by a number of contributors at <https://github.com/rednex/rgbds>