

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 *rgblink(1)* and *rgbfix(1)*.

SEE ALSO

rgbasm(5), *rgbfix(1)*, *rgblink(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>.