NAME

  rgbfix — Game Boy checksum fixer

SYNOPSIS

  rgbfix [**-CcjsVv**] [**-f** *fix_spec*] [**-i** *game_id*] [**-k** *licensee_str*]
      [**-l** *licensee_id*] [**-m** *mbc_type*] [**-n** *rom_version*] [**-p** *pad_value*]
      [**-r** *ram_size*] [**-t** *title_str*] *file*

DESCRIPTION

  The **rgbfix** program changes headers of Game Boy ROM images. It also performs other filetype operations, such as truncation. The arguments are as follows:

  -C   Set the Game Boy Color–only flag: *0x143* = 0xC0. If both this and the **-c** flag are set, this takes precedence.

  -c   Set the Game Boy Color–compatible flag: *0x143* = 0x80. If both this and the **-C** flag are set, **-C** takes precedence.

  -f *fix_spec*
      Fix certain header values that the Game Boy checks for correctness. Alternatively, intentionally trash these values by writing their binary inverse instead. *fix_spec* is a string containing any combination of the following characters:

      l   Fix the Nintendo logo (*0x104–0x133*).
      L   Trash the Nintendo logo.
      h   Fix the header checksum (*0x14D*).
      H   Trash the header checksum.
      g   Fix the global checksum (*0x14E–0x14F*).
      G   Trash the global checksum.

  -i *game_id*
      Set the game ID string (*0x13F–0x142*) to a given string of exactly 4 characters. If both this and the title are set, the game ID will overwrite the overlapping portion of the title.

  -j   Set the non-Japanese region flag: *0x14A* = 1.

  -k *licensee_str*
      Set the new licensee string (*0x144–0x145*) to a given string, truncated to at most two characters.

  -l *licensee_id*
      Set the old licensee code, *0x14B*, to a given value from 0 to 0xFF. This value is deprecated and should be set to 0x33 in all new software.

  -m *mbc_type*
      Set the MBC type, *0x147*, to a given value from 0 to 0xFF.

  -n *rom_version*
      Set the ROM version, *0x14C*, to a given value from 0 to 0xFF.

  -p *pad_value*
      Pad the image to a valid size with a given pad value from 0 to 0xFF. **rgbfix** will automatically pick a size from 32KiB, 64KiB, 128KiB, ..., 8192KiB and give a warning thereafter. The cartridge size byte (*0x148*) will be changed to reflect this new size.

  -r *ram_size*
      Set the RAM size, *0x149*, to a given value from 0 to 0xFF.

-s   Set the SGB flag: *0x146* = 3.

-t *title*
        Set the title string (*0x134–0x143*) to a given string, truncated to at most 16 characters. It is recommended to use 15 characters instead, to avoid clashing with the CGB flag (**-c** or **-C**). If both this and the game ID are set, the game ID will overwrite the overlapping portion of the title.

-V   Print the version of the program and exit.

-v   Equivalent to **-f lhg**.

EXAMPLES

Most values in the ROM header are only cosmetic. The bare minimum requirements for a workable image are checksums, the Nintendo logo, and (if needed) the CGB/SGB flags. It is a good idea to pad the image to a valid size as well ("valid" meaning a multiple of 32KiB).

The following will make a plain, no-color Game Boy game without checking for a valid size:

        $ rgbfix -v foo.gb

The following will make a SGB-enabled, color-enabled game with a title of "foobar", and pad it to a multiple of 32KiB. (The Game Boy itself does not use the title, but some emulators or ROM managers might.)

        $ rgbfix -vcs -l 0x33 -p 0 -t foobar baz.gb

The following will duplicate the header (sans global checksum) of the game "Survival Kids":

        $ rgbfix -cjsv -k A4 -l 0x33 -m 0x1B -p 0xFF -r 3 -t SURVIVALKIDAVKE SurvivalKids.gbc

SEE ALSO

rgbasm(1), rgblink(1), rgbds(7)

HISTORY

rgbfix was originally released by Carsten Sørensen as a standalone program called gbfix, and was later packaged in RGBDS by Justin Lloyd. It is now maintained by a number of contributors at **https://github.com/rednex/rgbds**