

stb single-file public domain libraries for C/C++

686commits3branches0releases35contributors

Branch: masterstb / +

update readme version numbers

nothings

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data	added stb_easy_font.h	Feb 1, 2015
deprecated	Merge branch 'headerify'	Jun 3, 2014
docs	Update why_public_domain.md	Apr 14, 2015
tests	Merge branch 'master' into working	Aug 1, 2015
tools	note that README is auto-generated so submitters don't need to change it	Apr 15, 2015
README.md	update readme version numbers	Aug 1, 2015
stb.h	Fix relative path check for non-Windows platforms in stb_fullpath.	Jun 9, 2015
stb_c_lexer.h	fix bug in string parsing that was ignoring next character after the ...	Jun 19, 2014
stb_divide.h	stb_divide.h	May 25, 2014
stb_dxt.h	added stb_dxt.h	May 25, 2014
stb_easy_font.h	delete game.h	Feb 22, 2015
stb_herringbone_wang_tile.h	fix broken map generation	Aug 17, 2014
stb_image.h	stb_image.h: fix *comp value when loading PSDs	May 28, 2015
stb_image_resize.h	Removing bitpacking warning for srgb conversion	Sep 18, 2014
stb_image_write.h	switch memcpy to memmove for simplicity;	Apr 13, 2015
stb_leakcheck.h	make sure all libs compile as C++	Apr 14, 2015
stb_perlin.h	generate README.md in part by parsing libraries so that version numbe...	May 30, 2014
stb_rect_pack.h	rename to STBRP_SORT for STBRP_ASSERT consistency;	Apr 15, 2015
stb_textedit.h	STB_TEXTEDIT_memmove	Apr 15, 2015
stb_tilemap_editor.h	tweak credits	Apr 15, 2015
stb_truetype.h	fix assert() to be STBTT_assert()	Aug 1, 2015
stb_vorbis.c	add some minor comments	Aug 1, 2015
stb_voxel_render.h	stb_voxel_render.h version 0.82	Aug 1, 2015
stretchy_buffer.h	make sure all libs compile as C++	Apr 14, 2015

README.md

# stb

single-file public domain libraries for C/C++

library	lastest version	category	LoC	description
stb_vorbis.c	1.05	audio	5459	decode ogg vorbis files from file/memory to float/16-bit signed output
stb_image.h	2.06	graphics	6437	image loading/decoding from file/memory: JPG, PNG, TGA, BMP, PSD, GIF, HDR, PIC
stb_truetype.h	1.07	graphics	3220	parse, decode, and rasterize characters from truetype fonts
stb_image_write.h	0.98	graphics	730	image writing to disk: PNG, TGA, BMP
stb_image_resize.h	0.90	graphics	2585	resize images larger/smaller with good quality
stb_rect_pack.h	0.06	graphics	560	simple 2D rectangle packer with decent quality
stretchy_buffer.h	1.02	utility	210	typesafe dynamic array for C (i.e. approximation to vector<>), doesn't compile as C++
stb_textedit.h	1.6	UI	1290	guts of a text editor for games etc implementing them from scratch
stb_voxel_render.h	0.82	3D graphics	3739	Minecraft-esque voxel rendering "engine" with many more features
stb_dxt.h	1.04	3D graphics	624	Fabian "ryg" Giesen's real-time DXT compressor
stb_perlin.h	0.2	3D graphics	175	revised Perlin noise (3D input, 1D output)
stb_easy_font.h	0.5	3D graphics	220	quick-and-dirty easy-to-deploy bitmap font for printing frame rate, etc
stb_tilemap_editor.h	0.35	game dev	4120	embeddable tilemap editor
stb_herringbone_wa...	0.6	game dev	1217	herringbone Wang tile map generator
stb_c_lexer.h	0.06	parsing	809	simplify writing parsers for C-like languages
stb_divide.h	0.91	math	373	more useful 32-bit modulus e.g. "euclidean divide"
stb.h	2.24	misc	14086	helper functions for C, mostly redundant in C++; basically author's personal stuff
stb_leakcheck.h	0.2	misc	117	quick-and-dirty malloc/free leak-checking

Total libraries: 18  
Total lines of C code: 45971

## FAQ

### What's the license?

These libraries are in the public domain (or the equivalent where that is not possible). You can do anything you want with them. You have no legal obligation to do anything else, although I appreciate attribution.

### If I wrap an stb library in a new library, does the new library have to be public domain?

No.

### A lot of these libraries seem redundant to existing open source libraries. Are they better somehow?

Generally they're only better in that they're easier to integrate, easier to use, and easier to release (single file; good API; no attribution requirement). They may be less featureful, slower, and/or use more memory. If you're already using an equivalent library, there's probably no good reason to switch.

### Why do you list "lines of code"? It's a terrible metric.

Just to give you some idea of the internal complexity of the library, to help you manage your expectations, or to let you know what you're getting into. While not all the libraries are written in the same style, they're certainly similar styles, and so comparisons between the libraries are probably still meaningful.

Note though that the lines do include both the implementation, the part that corresponds to a header file, and the documentation.

### Why single-file headers?

<>Code

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Windows doesn't have standard directories where libraries live. That makes deploying libraries in Windows a lot more painful than open source developers on Unix-derivates generally realize. (It also makes library dependencies a lot worse in Windows.)

There's also a common problem in Windows where a library was built against a different version of the runtime library, which causes link conflicts and confusion. Shipping the libs as headers means you normally just compile them straight into your project without making libraries, thus sidestepping that problem.

Making them a single file makes it very easy to just drop them into a project that needs them. (Of course you can still put them in a proper shared library tree if you want.)

Why not two files, one a header and one an implementation? The difference between 10 files and 9 files is not a big deal, but the difference between 2 files and 1 file is a big deal. You don't need to zip or tar the files up, you don't have to remember to attach *two* files, etc.

### Why "stb"? Is this something to do with Set-Top Boxes?

No, they are just the initials for my name, Sean T. Barrett. This was not chosen out of egomania, but as a semi-robust way of namespacing the filenames and source function names.

### Will you add more image types to stb\_image.c?

If people submit them, I generally add them, but the goal of stb\_image is less for applications like image viewer apps (which need to support every type of image under the sun) and more for things like games which can choose what images to use, so I may decline to add them if they're too rare or if the size of implementation vs. apparent benefit is too low.

### Are there other single-file public-domain libraries out there?

Yes. I'll put a list here when people remind me what they are.

### Do you have any advice on how to create my own single-file library?

Yes. [https://github.com/nothings/stb/blob/master/docs/stb\\_howto.txt](https://github.com/nothings/stb/blob/master/docs/stb_howto.txt)

### Why public domain?

I prefer it over GPL, LGPL, BSD, zlib, etc. for many reasons. Some of them are listed here:

[https://github.com/nothings/stb/blob/master/docs/why\\_public\\_domain.md](https://github.com/nothings/stb/blob/master/docs/why_public_domain.md)

### Why C?

Primarily, because I use C, not C++. But it does also make it easier for other people to use them from other languages.

### Why not C99? stdint.h, declare-anywhere, etc.

I still use MSVC 6 (1998) as my IDE because it has better human factors for me than later versions of MSVC.

