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This package was debianized by Matthias Klose <doko@debian.org>
on Mon, 10 Mar 2008 05:46:40 +0000.

It was downloaded from <ftp://sourceware.org/pub/libffi/>

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

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1.6 ncurses 6.2

1.6.1 Available under license :

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Current ncurses maintainer: Thomas Dickey <dickey@invisible-island.net>

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1.7 xz 5.2.5

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1.11 mpdecimal 2.5.1

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<one line to give the program's name and a brief idea of what it does.>  
Copyright (C) 19yy <name of author>
```

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Also add information on how to contact you by electronic and paper mail.

If the program is interactive, make it output a short notice like this when it starts in an interactive mode:

```
Gnomovision version 69, Copyright (C) 19yy name of author  
Gnomovision comes with ABSOLUTELY NO WARRANTY; for details type `show w'.  
This is free software, and you are welcome to redistribute it  
under certain conditions; type `show c' for details.
```

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Yoyodyne, Inc., hereby disclaims all copyright interest in the program
'Gnomovision' (which makes passes at compilers) written by James Hacker.

<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice

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The End

1.14 zlib 1.2.11

1.14.1 Available under license :

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```
/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.11, January 15th, 2017
```

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alummi.caltech.edu

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), [rfc1951](http://tools.ietf.org/html/rfc1951) (deflate format) and [rfc1952](http://tools.ietf.org/html/rfc1952) (gzip format).

*/

1.15 zlib 1.2.11.dfsg-0ubuntu2.2

1.15.1 Available under license :

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MiniZip - Copyright (c) 1998-2010 - by Gilles Vollant - version 1.1 64 bits from Mathias Svensson

Introduction

MiniZip 1.1 is built from MiniZip 1.0 by Gilles Vollant (<http://www.winimage.com/zLibDll/minizip.html>)

When adding ZIP64 support into minizip it would result into risk of breaking compatibility with minizip 1.0. All possible work was done for compatibility.

Background

When adding ZIP64 support Mathias Svensson found that Even Rouault have added ZIP64 support for unzip.c into minizip for a open source project called gdal (<http://www.gdal.org/>)

That was used as a starting point. And after that ZIP64 support was added to zip.c some refactoring and code cleanup was also done.

Changed from MiniZip 1.0 to MiniZip 1.1

-
- * Added ZIP64 support for unzip (by Even Rouault)
 - * Added ZIP64 support for zip (by Mathias Svensson)
 - * Reverted some changed that Even Rouault did.
 - * Bunch of patches received from Gulles Vollant that he received for MiniZip from various users.

- * Added unzip patch for BZIP Compression method (patch create by Daniel Borca)
- * Added BZIP Compress method for zip
- * Did some refactoring and code cleanup

Credits

Gilles Vollant - Original MiniZip author
Even Rouault - ZIP64 unzip Support
Daniel Borca - BZip Compression method support in unzip
Mathias Svensson - ZIP64 zip support
Mathias Svensson - BZip Compression method support in zip

Resources

ZipLayout <http://result42.com/projects/ZipFileLayout>
Command line tool for Windows that shows the layout and information of the headers in a zip archive.
Used when debugging and validating the creation of zip files using MiniZip64

ZIP App Note <http://www.pkware.com/documents/casestudies/APPNOTE.TXT>
Zip File specification

Notes.

* To be able to use BZip compression method in zip64.c or unzip64.c the BZIP2 lib is needed and HAVE_BZIP2 need to be defined.

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Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/contrib/minizip/MiniZip64_info.txt

No license file was found, but licenses were detected in source scan.

/* trees.c -- output deflated data using Huffman coding

* Copyright (C) 1995-2017 Jean-loup Gailly

* detect_data_type() function provided freely by Cosmin Truta, 2006

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/trees.c

No license file was found, but licenses were detected in source scan.

/* compress.c -- compress a memory buffer

* Copyright (C) 1995-2005, 2014, 2016 Jean-loup Gailly, Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/compress.c

No license file was found, but licenses were detected in source scan.

/* deflate.h -- internal compression state

* Copyright (C) 1995-2016 Jean-loup Gailly

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*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/deflate.h

No license file was found, but licenses were detected in source scan.

/* gzappend -- command to append to a gzip file

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version 1.2, 11 Oct 2012

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Mark Adler madler@alumni.caltech.edu

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/gzappend.c

No license file was found, but licenses were detected in source scan.

/* zip.h -- IO on .zip files using zlib

Version 1.1, February 14h, 2010

part of the MiniZip project - (<http://www.winimage.com/zLibDll/minizip.html>)

Copyright (C) 1998-2010 Gilles Vollant (minizip) (<http://www.winimage.com/zLibDll/minizip.html>)

Modifications for Zip64 support

Copyright (C) 2009-2010 Mathias Svensson (<http://result42.com>)

For more info read MiniZip_info.txt

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Changes

See header of zip.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/contrib/minizip/zip.h

No license file was found, but licenses were detected in source scan.

/* gzread.c -- zlib functions for reading gzip files

* Copyright (C) 2004, 2005, 2010, 2011, 2012, 2013, 2016 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/gzread.c

No license file was found, but licenses were detected in source scan.

Frequently Asked Questions about ZLIB1.DLL

This document describes the design, the rationale, and the usage of the official DLL build of zlib, named ZLIB1.DLL. If you have general questions about zlib, you should see the file "FAQ" found in the zlib distribution, or at the following location:

http://www.gzip.org/zlib/zlib_faq.html

1. What is ZLIB1.DLL, and how can I get it?

- ZLIB1.DLL is the official build of zlib as a DLL.
(Please remark the character '1' in the name.)

Pointers to a precompiled ZLIB1.DLL can be found in the zlib web site at:

<http://www.zlib.net/>

Applications that link to ZLIB1.DLL can rely on the following specification:

* The exported symbols are exclusively defined in the source files "zlib.h" and "zlib.def", found in an official zlib source distribution.

* The symbols are exported by name, not by ordinal.

* The exported names are undecorated.

- * The calling convention of functions is "C" (CDECL).
- * The ZLIB1.DLL binary is linked to MSVCRT.DLL.

The archive in which ZLIB1.DLL is bundled contains compiled test programs that must run with a valid build of ZLIB1.DLL. It is recommended to download the prebuilt DLL from the zlib web site, instead of building it yourself, to avoid potential incompatibilities that could be introduced by your compiler and build settings. If you do build the DLL yourself, please make sure that it complies with all the above requirements, and it runs with the precompiled test programs, bundled with the original ZLIB1.DLL distribution.

If, for any reason, you need to build an incompatible DLL, please use a different file name.

2. Why did you change the name of the DLL to ZLIB1.DLL? What happened to the old ZLIB.DLL?

- The old ZLIB.DLL, built from zlib-1.1.4 or earlier, required compilation settings that were incompatible to those used by a static build. The DLL settings were supposed to be enabled by defining the macro ZLIB_DLL, before including "zlib.h". Incorrect handling of this macro was silently accepted at build time, resulting in two major problems:

- * ZLIB_DLL was missing from the old makefile. When building the DLL, not all people added it to the build options. In consequence, incompatible incarnations of ZLIB.DLL started to circulate around the net.
- * When switching from using the static library to using the DLL, applications had to define the ZLIB_DLL macro and to recompile all the sources that contained calls to zlib functions. Failure to do so resulted in creating binaries that were unable to run with the official ZLIB.DLL build.

The only possible solution that we could foresee was to make a binary-incompatible change in the DLL interface, in order to remove the dependency on the ZLIB_DLL macro, and to release the new DLL under a different name.

We chose the name ZLIB1.DLL, where '1' indicates the major zlib version number. We hope that we will not have to break the binary compatibility again, at least not as long as the zlib-1.x series will last.

There is still a ZLIB_DLL macro, that can trigger a more efficient build and use of the DLL, but compatibility no longer depends on it.

3. Can I build ZLIB.DLL from the new zlib sources, and replace an old ZLIB.DLL, that was built from zlib-1.1.4 or earlier?

- In principle, you can do it by assigning calling convention keywords to the macros ZEXPORT and ZEXPORTVA. In practice, it depends on what you mean by "an old ZLIB.DLL", because the old DLL exists in several mutually-incompatible versions. You have to find out first what kind of calling convention is being used in your particular ZLIB.DLL build, and to use the same one in the new build. If you don't know what this is all about, you might be better off if you would just leave the old DLL intact.

4. Can I compile my application using the new zlib interface, and link it to an old ZLIB.DLL, that was built from zlib-1.1.4 or earlier?

- The official answer is "no"; the real answer depends again on what kind of ZLIB.DLL you have. Even if you are lucky, this course of action is unreliable.

If you rebuild your application and you intend to use a newer version of zlib (post- 1.1.4), it is strongly recommended to link it to the new ZLIB1.DLL.

5. Why are the zlib symbols exported by name, and not by ordinal?

- Although exporting symbols by ordinal is a little faster, it is risky. Any single glitch in the maintenance or use of the DEF file that contains the ordinals can result in incompatible builds and frustrating crashes. Simply put, the benefits of exporting symbols by ordinal do not justify the risks.

Technically, it should be possible to maintain ordinals in the DEF file, and still export the symbols by name. Ordinals exist in every DLL, and even if the dynamic linking performed at the DLL startup is searching for names, ordinals serve as hints, for a faster name lookup. However, if the DEF file contains ordinals, the Microsoft linker automatically builds an implib that will cause the executables linked to it to use those ordinals, and not the names. It is interesting to

notice that the GNU linker for Win32 does not suffer from this problem.

It is possible to avoid the DEF file if the exported symbols are accompanied by a "`__declspec(dllexport)`" attribute in the source files. You can do this in zlib by predefining the `ZLIB_DLL` macro.

6. I see that the `ZLIB1.DLL` functions use the "C" (CDECL) calling convention. Why not use the `STDCALL` convention? `STDCALL` is the standard convention in Win32, and I need it in my Visual Basic project!

(For readability, we use `CDECL` to refer to the convention triggered by the "`__cdecl`" keyword, `STDCALL` to refer to the convention triggered by "`__stdcall`", and `FASTCALL` to refer to the convention triggered by "`__fastcall`".)

- Most of the native Windows API functions (without `varargs`) use indeed the `WINAPI` convention (which translates to `STDCALL` in Win32), but the standard C functions use `CDECL`. If a user application is intrinsically tied to the Windows API (e.g. it calls native Windows API functions such as `CreateFile()`), sometimes it makes sense to decorate its own functions with `WINAPI`. But if ANSI C or POSIX portability is a goal (e.g. it calls standard C functions such as `fopen()`), it is not a sound decision to request the inclusion of `<windows.h>`, or to use non-ANSI constructs, for the sole purpose to make the user functions `STDCALL`-able.

The functionality offered by `zlib` is not in the category of "Windows functionality", but is more like "C functionality".

Technically, `STDCALL` is not bad; in fact, it is slightly faster than `CDECL`, and it works with variable-argument functions, just like `CDECL`. It is unfortunate that, in spite of using `STDCALL` in the Windows API, it is not the default convention used by the C compilers that run under Windows. The roots of the problem reside deep inside the unsafety of the K&R-style function prototypes, where the argument types are not specified; but that is another story for another day.

The remaining fact is that `CDECL` is the default convention. Even if an explicit convention is hard-coded into the function prototypes inside C headers, problems may appear. The necessity to expose the convention in users' callbacks is one of these problems.

The calling convention issues are also important when using zlib in other programming languages. Some of them, like Ada (GNAT) and Fortran (GNU G77), have C bindings implemented initially on Unix, and relying on the C calling convention. On the other hand, the pre- .NET versions of Microsoft Visual Basic require STDCALL, while Borland Delphi prefers, although it does not require, FASTCALL.

In fairness to all possible uses of zlib outside the C programming language, we choose the default "C" convention. Anyone interested in different bindings or conventions is encouraged to maintain specialized projects. The "contrib/" directory from the zlib distribution already holds a couple of foreign bindings, such as Ada, C++, and Delphi.

7. I need a DLL for my Visual Basic project. What can I do?

- Define the ZLIB_WINAPI macro before including "zlib.h", when building both the DLL and the user application (except that you don't need to define anything when using the DLL in Visual Basic). The ZLIB_WINAPI macro will switch on the WINAPI (STDCALL) convention. The name of this DLL must be different than the official ZLIB1.DLL.

Gilles Vollant has contributed a build named ZLIBWAPI.DLL, with the ZLIB_WINAPI macro turned on, and with the minizip functionality built in. For more information, please read the notes inside "contrib/vstudio/readme.txt", found in the zlib distribution.

8. I need to use zlib in my Microsoft .NET project. What can I do?

- Henrik Ravn has contributed a .NET wrapper around zlib. Look into contrib/dotzlib/, inside the zlib distribution.

9. If my application uses ZLIB1.DLL, should I link it to MSVCRT.DLL? Why?

- It is not required, but it is recommended to link your application to MSVCRT.DLL, if it uses ZLIB1.DLL.

The executables (.EXE, .DLL, etc.) that are involved in the same process and are using the C run-time library (i.e. they

are calling standard C functions), must link to the same library. There are several libraries in the Win32 system: CRTDLL.DLL, MSVCRT.DLL, the static C libraries, etc. Since ZLIB1.DLL is linked to MSVCRT.DLL, the executables that depend on it should also be linked to MSVCRT.DLL.

10. Why are you saying that ZLIB1.DLL and my application should be linked to the same C run-time (CRT) library? I linked my application and my DLLs to different C libraries (e.g. my application to a static library, and my DLLs to MSVCRT.DLL), and everything works fine.

- If a user library invokes only pure Win32 API (accessible via <windows.h> and the related headers), its DLL build will work in any context. But if this library invokes standard C API, things get more complicated.

There is a single Win32 library in a Win32 system. Every function in this library resides in a single DLL module, that is safe to call from anywhere. On the other hand, there are multiple versions of the C library, and each of them has its own separate internal state. Standalone executables and user DLLs that call standard C functions must link to a C run-time (CRT) library, be it static or shared (DLL). Intermixing occurs when an executable (not necessarily standalone) and a DLL are linked to different CRTs, and both are running in the same process.

Intermixing multiple CRTs is possible, as long as their internal states are kept intact. The Microsoft Knowledge Base articles KB94248 "HOWTO: Use the C Run-Time" and KB140584 "HOWTO: Link with the Correct C Run-Time (CRT) Library" mention the potential problems raised by intermixing.

If intermixing works for you, it's because your application and DLLs are avoiding the corruption of each of the CRTs' internal states, maybe by careful design, or maybe by fortune.

Also note that linking ZLIB1.DLL to non-Microsoft CRTs, such as those provided by Borland, raises similar problems.

11. Why are you linking ZLIB1.DLL to MSVCRT.DLL?

- MSVCRT.DLL exists on every Windows 95 with a new service pack installed, or with Microsoft Internet Explorer 4 or later, and on all other Windows 4.x or later (Windows 98, Windows NT 4,

or later). It is freely distributable; if not present in the system, it can be downloaded from Microsoft or from other software provider for free.

The fact that MSVCRT.DLL does not exist on a virgin Windows 95 is not so problematic. Windows 95 is scarcely found nowadays, Microsoft ended its support a long time ago, and many recent applications from various vendors, including Microsoft, do not even run on it. Furthermore, no serious user should run Windows 95 without a proper update installed.

12. Why are you not linking ZLIB1.DLL to <<my favorite C run-time library>> ?

- We considered and abandoned the following alternatives:

- * Linking ZLIB1.DLL to a static C library (LIBC.LIB, or LIBCMT.LIB) is not a good option. People are using the DLL mainly to save disk space. If you are linking your program to a static C library, you may as well consider linking zlib in statically, too.
- * Linking ZLIB1.DLL to CRTDLL.DLL looks appealing, because CRTDLL.DLL is present on every Win32 installation. Unfortunately, it has a series of problems: it does not work properly with Microsoft's C++ libraries, it does not provide support for 64-bit file offsets, (and so on...), and Microsoft discontinued its support a long time ago.
- * Linking ZLIB1.DLL to MSVCR70.DLL or MSVCR71.DLL, supplied with the Microsoft .NET platform, and Visual C++ 7.0/7.1, raises problems related to the status of ZLIB1.DLL as a system component. According to the Microsoft Knowledge Base article KB326922 "INFO: Redistribution of the Shared C Runtime Component in Visual C++ .NET", MSVCR70.DLL and MSVCR71.DLL are not supposed to function as system DLLs, because they may clash with MSVCRT.DLL. Instead, the application's installer is supposed to put these DLLs (if needed) in the application's private directory. If ZLIB1.DLL depends on a non-system runtime, it cannot function as a redistributable system component.
- * Linking ZLIB1.DLL to non-Microsoft runtimes, such as Borland's, or Cygwin's, raises problems related to the reliable presence of these runtimes on Win32 systems. It's easier to let the DLL build of zlib up to the people who distribute these runtimes, and who may proceed as

explained in the answer to Question 14.

13. If ZLIB1.DLL cannot be linked to MSVCR70.DLL or MSVCR71.DLL, how can I build/use ZLIB1.DLL in Microsoft Visual C++ 7.0 (Visual Studio .NET) or newer?

- Due to the problems explained in the Microsoft Knowledge Base article KB326922 (see the previous answer), the C runtime that comes with the VC7 environment is no longer considered a system component. That is, it should not be assumed that this runtime exists, or may be installed in a system directory. Since ZLIB1.DLL is supposed to be a system component, it may not depend on a non-system component.

In order to link ZLIB1.DLL and your application to MSVCRT.DLL in VC7, you need the library of Visual C++ 6.0 or older. If you don't have this library at hand, it's probably best not to use ZLIB1.DLL.

We are hoping that, in the future, Microsoft will provide a way to build applications linked to a proper system runtime, from the Visual C++ environment. Until then, you have a couple of alternatives, such as linking zlib in statically. If your application requires dynamic linking, you may proceed as explained in the answer to Question 14.

14. I need to link my own DLL build to a CRT different than MSVCRT.DLL. What can I do?

- Feel free to rebuild the DLL from the zlib sources, and link it the way you want. You should, however, clearly state that your build is unofficial. You should give it a different file name, and/or install it in a private directory that can be accessed by your application only, and is not visible to the others (i.e. it's neither in the PATH, nor in the SYSTEM or SYSTEM32 directories). Otherwise, your build may clash with applications that link to the official build.

For example, in Cygwin, zlib is linked to the Cygwin runtime CYGWIN1.DLL, and it is distributed under the name CYGZ.DLL.

15. May I include additional pieces of code that I find useful, link them in ZLIB1.DLL, and export them?

- No. A legitimate build of ZLIB1.DLL must not include code

that does not originate from the official zlib source code.
But you can make your own private DLL build, under a different file name, as suggested in the previous answer.

For example, zlib is a part of the VCL library, distributed with Borland Delphi and C++ Builder. The DLL build of VCL is a redistributable file, named VCLxx.DLL.

16. May I remove some functionality out of ZLIB1.DLL, by enabling macros like NO_GZCOMPRESS or NO_GZIP at compile time?

- No. A legitimate build of ZLIB1.DLL must provide the complete zlib functionality, as implemented in the official zlib source code. But you can make your own private DLL build, under a different file name, as suggested in the previous answer.

17. I made my own ZLIB1.DLL build. Can I test it for compliance?

- We prefer that you download the official DLL from the zlib web site. If you need something peculiar from this DLL, you can send your suggestion to the zlib mailing list.

However, in case you do rebuild the DLL yourself, you can run it with the test programs found in the DLL distribution.

Running these test programs is not a guarantee of compliance, but a failure can imply a detected problem.

**

This document is written and maintained by
Cosmin Truta <cosmint@cs.ubbcluj.ro>

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/win32/DLL_FAQ.txt

No license file was found, but licenses were detected in source scan.

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The origin of this software must not be misrepresented; you must not
Altered source versions must be plainly marked as such, and must not be
This notice may not be removed or altered from any source distribution.

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/zlib.3

No license file was found, but licenses were detected in source scan.

```
/* zutil.c -- target dependent utility functions for the compression library
* Copyright (C) 1995-2017 Jean-loup Gailly
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
*/opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/zutil.c
No license file was found, but licenses were detected in source scan.
```

```
/* infcover.c -- test zlib's inflate routines with full code coverage
* Copyright (C) 2011, 2016 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
*/opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/test/infcover.c
No license file was found, but licenses were detected in source scan.
```

```
/* zconf.h -- configuration of the zlib compression library
* Copyright (C) 1995-2016 Jean-loup Gailly, Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
*/opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/zconf.h.cmakein
*/opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/zconf.h.in
*/opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/zconf.h
No license file was found, but licenses were detected in source scan.
```

```
/* Adler32.c -- compute the Adler-32 checksum of a data stream
* Copyright (C) 1995-2011, 2016 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
*/opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/Adler32.c
No license file was found, but licenses were detected in source scan.
```

```
/* gun.c -- simple gunzip to give an example of the use of inflateBack()
* Copyright (C) 2003, 2005, 2008, 2010, 2012 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
Version 1.7 12 August 2012 Mark Adler */
```

Found in path(s):

```
*/opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/gun.c
No license file was found, but licenses were detected in source scan.
```

```
/* inftrees.h -- header to use inftrees.c
```

* Copyright (C) 1995-2005, 2010 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/inftrees.h
No license file was found, but licenses were detected in source scan.

/* crc32.c -- compute the CRC-32 of a data stream
* Copyright (C) 1995-2006, 2010, 2011, 2012, 2016 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*
* Thanks to Rodney Brown <rbrown64@csc.com.au> for his contribution of faster
* CRC methods: exclusive-oring 32 bits of data at a time, and pre-computing
* tables for updating the shift register in one step with three exclusive-ors
* instead of four steps with four exclusive-ors. This results in about a
* factor of two increase in speed on a Power PC G4 (PPC7455) using gcc -O3.
*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/crc32.c
No license file was found, but licenses were detected in source scan.

/* unzip.c -- IO for uncompress .zip files using zlib
Version 1.1, February 14h, 2010
part of the MiniZip project - (<http://www.winimage.com/zLibDll/minizip.html>)

Copyright (C) 1998-2010 Gilles Vollant (<http://www.winimage.com/zLibDll/minizip.html>)

Modifications of Unzip for Zip64
Copyright (C) 2007-2008 Even Rouault

Modifications for Zip64 support on both zip and unzip
Copyright (C) 2009-2010 Mathias Svensson (<http://result42.com>)

For more info read MiniZip_info.txt

Decryption code comes from crypt.c by Info-ZIP but has been greatly reduced in terms of compatibility with older software. The following is from the original crypt.c.
Code woven in by Terry Thorsen 1/2003.

Copyright (c) 1990-2000 Info-ZIP. All rights reserved.

See the accompanying file LICENSE, version 2000-Apr-09 or later
(the contents of which are also included in zip.h) for terms of use.
If, for some reason, all these files are missing, the Info-ZIP license

also may be found at: <ftp://ftp.info-zip.org/pub/infozip/license.html>

crypt.c (full version) by Info-ZIP. Last revised: [see crypt.h]

The encryption/decryption parts of this source code (as opposed to the non-echoing password parts) were originally written in Europe. The whole source package can be freely distributed, including from the USA. (Prior to January 2000, re-export from the US was a violation of US law.)

This encryption code is a direct transcription of the algorithm from Roger Schlafly, described by Phil Katz in the file appnote.txt. This file (appnote.txt) is distributed with the PKZIP program (even in the version without encryption capabilities).

Changes in unzip.c

2007-2008 - Even Rouault - Addition of cpl_unzGetCurrentFileZStreamPos
2007-2008 - Even Rouault - Decoration of symbol names unz* -> cpl_unz*
2007-2008 - Even Rouault - Remove old C style function prototypes
2007-2008 - Even Rouault - Add unzip support for ZIP64

Copyright (C) 2007-2008 Even Rouault

Oct-2009 - Mathias Svensson - Removed cpl_* from symbol names (Even Rouault added them but since this is now moved to a new project (minizip64) I renamed them again).

Oct-2009 - Mathias Svensson - Fixed problem if uncompressed size was > 4G and compressed size was <4G should only read the compressed/uncompressed size from the Zip64 format if the size from normal header was 0xFFFFFFFF

Oct-2009 - Mathias Svensson - Applied some bug fixes from patches received from Gilles Vollant

Oct-2009 - Mathias Svensson - Applied support to unzip files with compression method BZIP2 (bzip2 lib is required)

Patch created by Daniel Borca

Jan-2010 - back to unzip and minizip 1.0 name scheme, with compatibility layer

Copyright (C) 1998 - 2010 Gilles Vollant, Even Rouault, Mathias Svensson

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/contrib/minizip/unzip.c

No license file was found, but licenses were detected in source scan.

/* inffast.h -- header to use inffast.c

* Copyright (C) 1995-2003, 2010 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/inffast.h

No license file was found, but licenses were detected in source scan.

/* inftrees.c -- generate Huffman trees for efficient decoding
* Copyright (C) 1995-2017 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/inftrees.c

No license file was found, but licenses were detected in source scan.

/* zutil.h -- internal interface and configuration of the compression library
* Copyright (C) 1995-2016 Jean-loup Gailly, Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/zutil.h

No license file was found, but licenses were detected in source scan.

/*
Additional tools for Minizip
Code: Xavier Roche '2004
License: Same as ZLIB (www.gzip.org)
*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/contrib/minizip/mztools.h

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/contrib/minizip/mztools.c

No license file was found, but licenses were detected in source scan.

/* gzclose.c -- zlib gzclose() function
* Copyright (C) 2004, 2010 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/gzclose.c

No license file was found, but licenses were detected in source scan.

```
/* deflate.c -- compress data using the deflation algorithm
* Copyright (C) 1995-2017 Jean-loup Gailly and Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/deflate.c
No license file was found, but licenses were detected in source scan.
```

```
# For conditions of distribution and use, see copyright notice in zlib.h
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/msdos/Makefile.dj2
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/msdos/Makefile.emx
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/win32/Makefile.gcc
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/old/Makefile.emx
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/old/os2/Makefile.os2
No license file was found, but licenses were detected in source scan.
```

```
/* gzlib.c -- zlib functions common to reading and writing gzip files
* Copyright (C) 2004-2017 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/gzlib.c
No license file was found, but licenses were detected in source scan.
```

```
/* zlib.h -- interface of the 'zlib' general purpose compression library
version 1.2.11, January 15th, 2017
```

Copyright (C) 1995-2017 Jean-loup Gailly and Mark Adler

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), rfc1951 (deflate format) and rfc1952 (gzip format).

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/zlib.h

No license file was found, but licenses were detected in source scan.

/* example.c -- usage example of the zlib compression library

* Copyright (C) 1995-2006, 2011, 2016 Jean-loup Gailly

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/test/example.c

No license file was found, but licenses were detected in source scan.

/* zpipe.c: example of proper use of zlib's inflate() and deflate()

Not copyrighted -- provided to the public domain

Version 1.4 11 December 2005 Mark Adler */

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/zpipe.c

No license file was found, but licenses were detected in source scan.

/* gzjoin -- command to join gzip files into one gzip file

Copyright (C) 2004, 2005, 2012 Mark Adler, all rights reserved
version 1.2, 14 Aug 2012

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3. This notice may not be removed or altered from any source distribution.

Mark Adler madler@alumni.caltech.edu

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/gzjoin.c

No license file was found, but licenses were detected in source scan.

Frequently Asked Questions about zlib

If your question is not there, please check the zlib home page

<http://zlib.net/> which may have more recent information.

The latest zlib FAQ is at http://zlib.net/zlib_faq.html

1. Is zlib Y2K-compliant?

Yes. zlib doesn't handle dates.

2. Where can I get a Windows DLL version?

The zlib sources can be compiled without change to produce a DLL. See the file win32/DLL_FAQ.txt in the zlib distribution. Pointers to the precompiled DLL are found in the zlib web site at <http://zlib.net/>.

3. Where can I get a Visual Basic interface to zlib?

See

* <http://marknelson.us/1997/01/01/zlib-engine/>

* win32/DLL_FAQ.txt in the zlib distribution

4. compress() returns Z_BUF_ERROR.

Make sure that before the call of compress(), the length of the compressed buffer is equal to the available size of the compressed buffer and not zero. For Visual Basic, check that this parameter is passed by reference ("as any"), not by value ("as long").

5. deflate() or inflate() returns Z_BUF_ERROR.

Before making the call, make sure that avail_in and avail_out are not zero. When setting the parameter flush equal to Z_FINISH, also make sure that avail_out is big enough to allow processing all pending input. Note that a Z_BUF_ERROR is not fatal--another call to deflate() or inflate() can be made with more input or output space. A Z_BUF_ERROR may in fact be unavoidable depending on how the functions are used, since it is not possible to tell whether or not there is more output pending when strm.avail_out returns with zero. See http://zlib.net/zlib_how.html for a heavily annotated example.

6. Where's the zlib documentation (man pages, etc.)?

It's in zlib.h . Examples of zlib usage are in the files test/example.c and test/minigzip.c, with more in examples/ .

7. Why don't you use GNU autoconf or libtool or ...?

Because we would like to keep zlib as a very small and simple package. zlib is rather portable and doesn't need much configuration.

8. I found a bug in zlib.

Most of the time, such problems are due to an incorrect usage of zlib. Please try to reproduce the problem with a small program and send the corresponding source to us at zlib@gzip.org . Do not send multi-megabyte data files without prior agreement.

9. Why do I get "undefined reference to gzputc"?

If "make test" produces something like

```
example.o(.text+0x154): undefined reference to `gzputc'
```

check that you don't have old files libz.* in /usr/lib, /usr/local/lib or /usr/X11R6/lib. Remove any old versions, then do "make install".

10. I need a Delphi interface to zlib.

See the contrib/delphi directory in the zlib distribution.

11. Can zlib handle .zip archives?

Not by itself, no. See the directory contrib/minizip in the zlib distribution.

12. Can zlib handle .Z files?

No, sorry. You have to spawn an uncompress or gunzip subprocess, or adapt the code of uncompress on your own.

13. How can I make a Unix shared library?

By default a shared (and a static) library is built for Unix. So:

```
make distclean
./configure
make
```

14. How do I install a shared zlib library on Unix?

After the above, then:

```
make install
```

However, many flavors of Unix come with a shared zlib already installed. Before going to the trouble of compiling a shared version of zlib and trying to install it, you may want to check if it's already there! If you can `#include <zlib.h>`, it's there. The `-lz` option will probably link to it. You can check the version at the top of `zlib.h` or with the `ZLIB_VERSION` symbol defined in `zlib.h`.

15. I have a question about OttoPDF.

We are not the authors of OttoPDF. The real author is on the OttoPDF web site: Joel Hainley, jhainley@myndkryme.com.

16. Can zlib decode Flate data in an Adobe PDF file?

Yes. See <http://www.pdflib.com/>. To modify PDF forms, see <http://sourceforge.net/projects/acroformtool/>.

17. Why am I getting this "register_frame_info not found" error on Solaris?

After installing zlib 1.1.4 on Solaris 2.6, running applications using zlib generates an error such as:

```
ld.so.1: rpm: fatal: relocation error: file /usr/local/lib/libz.so:
symbol __register_frame_info: referenced symbol not found
```

The symbol `__register_frame_info` is not part of zlib, it is generated by the C compiler (cc or gcc). You must recompile applications using zlib which have this problem. This problem is specific to Solaris. See <http://www.sunfreeware.com> for Solaris versions of zlib and applications

using zlib.

18. Why does gzip give an error on a file I make with compress/deflate?

The compress and deflate functions produce data in the zlib format, which is different and incompatible with the gzip format. The gz* functions in zlib on the other hand use the gzip format. Both the zlib and gzip formats use the same compressed data format internally, but have different headers and trailers around the compressed data.

19. Ok, so why are there two different formats?

The gzip format was designed to retain the directory information about a single file, such as the name and last modification date. The zlib format on the other hand was designed for in-memory and communication channel applications, and has a much more compact header and trailer and uses a faster integrity check than gzip.

20. Well that's nice, but how do I make a gzip file in memory?

You can request that deflate write the gzip format instead of the zlib format using deflateInit2(). You can also request that inflate decode the gzip format using inflateInit2(). Read zlib.h for more details.

21. Is zlib thread-safe?

Yes. However any library routines that zlib uses and any application-provided memory allocation routines must also be thread-safe. zlib's gz* functions use stdio library routines, and most of zlib's functions use the library memory allocation routines by default. zlib's *Init* functions allow for the application to provide custom memory allocation routines.

Of course, you should only operate on any given zlib or gzip stream from a single thread at a time.

22. Can I use zlib in my commercial application?

Yes. Please read the license in zlib.h.

23. Is zlib under the GNU license?

No. Please read the license in zlib.h.

24. The license says that altered source versions must be "plainly marked". So what exactly do I need to do to meet that requirement?

You need to change the ZLIB_VERSION and ZLIB_VERNUM #defines in zlib.h. In particular, the final version number needs to be changed to "f", and an

identification string should be appended to ZLIB_VERSION. Version numbers x.x.x.f are reserved for modifications to zlib by others than the zlib maintainers. For example, if the version of the base zlib you are altering is "1.2.3.4", then in zlib.h you should change ZLIB_VERNUM to 0x123f, and ZLIB_VERSION to something like "1.2.3.f-zachary-mods-v3". You can also update the version strings in deflate.c and infrees.c.

For altered source distributions, you should also note the origin and nature of the changes in zlib.h, as well as in ChangeLog and README, along with the dates of the alterations. The origin should include at least your name (or your company's name), and an email address to contact for help or issues with the library.

Note that distributing a compiled zlib library along with zlib.h and zconf.h is also a source distribution, and so you should change ZLIB_VERSION and ZLIB_VERNUM and note the origin and nature of the changes in zlib.h as you would for a full source distribution.

25. Will zlib work on a big-endian or little-endian architecture, and can I exchange compressed data between them?

Yes and yes.

26. Will zlib work on a 64-bit machine?

Yes. It has been tested on 64-bit machines, and has no dependence on any data types being limited to 32-bits in length. If you have any difficulties, please provide a complete problem report to zlib@gzip.org

27. Will zlib decompress data from the PKWare Data Compression Library?

No. The PKWare DCL uses a completely different compressed data format than does PKZIP and zlib. However, you can look in zlib's contrib/blast directory for a possible solution to your problem.

28. Can I access data randomly in a compressed stream?

No, not without some preparation. If when compressing you periodically use Z_FULL_FLUSH, carefully write all the pending data at those points, and keep an index of those locations, then you can start decompression at those points. You have to be careful to not use Z_FULL_FLUSH too often, since it can significantly degrade compression. Alternatively, you can scan a deflate stream once to generate an index, and then use that index for random access. See examples/zran.c .

29. Does zlib work on MVS, OS/390, CICS, etc.?

It has in the past, but we have not heard of any recent evidence. There

were working ports of zlib 1.1.4 to MVS, but those links no longer work. If you know of recent, successful applications of zlib on these operating systems, please let us know. Thanks.

30. Is there some simpler, easier to read version of inflate I can look at to understand the deflate format?

First off, you should read RFC 1951. Second, yes. Look in zlib's contrib/puff directory.

31. Does zlib infringe on any patents?

As far as we know, no. In fact, that was originally the whole point behind zlib. Look here for some more information:

<http://www.gzip.org/#faq11>

32. Can zlib work with greater than 4 GB of data?

Yes. inflate() and deflate() will process any amount of data correctly. Each call of inflate() or deflate() is limited to input and output chunks of the maximum value that can be stored in the compiler's "unsigned int" type, but there is no limit to the number of chunks. Note however that the strm.total_in and strm_total_out counters may be limited to 4 GB. These counters are provided as a convenience and are not used internally by inflate() or deflate(). The application can easily set up its own counters updated after each call of inflate() or deflate() to count beyond 4 GB. compress() and uncompress() may be limited to 4 GB, since they operate in a single call. gzseek() and gztell() may be limited to 4 GB depending on how zlib is compiled. See the zlibCompileFlags() function in zlib.h.

The word "may" appears several times above since there is a 4 GB limit only if the compiler's "long" type is 32 bits. If the compiler's "long" type is 64 bits, then the limit is 16 exabytes.

33. Does zlib have any security vulnerabilities?

The only one that we are aware of is potentially in gzprintf(). If zlib is compiled to use sprintf() or vsprintf(), then there is no protection against a buffer overflow of an 8K string space (or other value as set by gzbuffer()), other than the caller of gzprintf() assuring that the output will not exceed 8K. On the other hand, if zlib is compiled to use snprintf() or vsnprintf(), which should normally be the case, then there is no vulnerability. The ./configure script will display warnings if an insecure variation of sprintf() will be used by gzprintf(). Also the zlibCompileFlags() function will return information on what variant of sprintf() is used by gzprintf().

If you don't have `snprintf()` or `vsprintf()` and would like one, you can find a portable implementation here:

<http://www.ijs.si/software/snprintf/>

Note that you should be using the most recent version of zlib. Versions 1.1.3 and before were subject to a double-free vulnerability, and versions 1.2.1 and 1.2.2 were subject to an access exception when decompressing invalid compressed data.

34. Is there a Java version of zlib?

Probably what you want is to use zlib in Java. zlib is already included as part of the Java SDK in the `java.util.zip` package. If you really want a version of zlib written in the Java language, look on the zlib home page for links: <http://zlib.net/> .

35. I get this or that compiler or source-code scanner warning when I crank it up to maximally-pedantic. Can't you guys write proper code?

Many years ago, we gave up attempting to avoid warnings on every compiler in the universe. It just got to be a waste of time, and some compilers were downright silly as well as contradicted each other. So now, we simply make sure that the code always works.

36. Valgrind (or some similar memory access checker) says that deflate is performing a conditional jump that depends on an uninitialized value. Isn't that a bug?

No. That is intentional for performance reasons, and the output of deflate is not affected. This only started showing up recently since zlib 1.2.x uses `malloc()` by default for allocations, whereas earlier versions used `calloc()`, which zeros out the allocated memory. Even though the code was correct, versions 1.2.4 and later was changed to not stimulate these checkers.

37. Will zlib read the (insert any ancient or arcane format here) compressed data format?

Probably not. Look in the `comp.compression` FAQ for pointers to various formats and associated software.

38. How can I encrypt/decrypt zip files with zlib?

zlib doesn't support encryption. The original PKZIP encryption is very weak and can be broken with freely available programs. To get strong encryption, use GnuPG, <http://www.gnupg.org/> , which already includes zlib compression. For PKZIP compatible "encryption", look at

<http://www.info-zip.org/>

39. What's the difference between the "gzip" and "deflate" HTTP 1.1 encodings?

"gzip" is the gzip format, and "deflate" is the zlib format. They should probably have called the second one "zlib" instead to avoid confusion with the raw deflate compressed data format. While the HTTP 1.1 RFC 2616 correctly points to the zlib specification in RFC 1950 for the "deflate" transfer encoding, there have been reports of servers and browsers that incorrectly produce or expect raw deflate data per the deflate specification in RFC 1951, most notably Microsoft. So even though the "deflate" transfer encoding using the zlib format would be the more efficient approach (and in fact exactly what the zlib format was designed for), using the "gzip" transfer encoding is probably more reliable due to an unfortunate choice of name on the part of the HTTP 1.1 authors.

Bottom line: use the gzip format for HTTP 1.1 encoding.

40. Does zlib support the new "Deflate64" format introduced by PKWare?

No. PKWare has apparently decided to keep that format proprietary, since they have not documented it as they have previous compression formats. In any case, the compression improvements are so modest compared to other more modern approaches, that it's not worth the effort to implement.

41. I'm having a problem with the zip functions in zlib, can you help?

There are no zip functions in zlib. You are probably using minizip by Giles Vollant, which is found in the contrib directory of zlib. It is not part of zlib. In fact none of the stuff in contrib is part of zlib. The files in there are not supported by the zlib authors. You need to contact the authors of the respective contribution for help.

42. The match.asm code in contrib is under the GNU General Public License. Since it's part of zlib, doesn't that mean that all of zlib falls under the GNU GPL?

No. The files in contrib are not part of zlib. They were contributed by other authors and are provided as a convenience to the user within the zlib distribution. Each item in contrib has its own license.

43. Is zlib subject to export controls? What is its ECCN?

zlib is not subject to export controls, and so is classified as EAR99.

44. Can you please sign these lengthy legal documents and fax them back to us so that we can use your software in our product?

No. Go away. Shoo.

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/FAQ

No license file was found, but licenses were detected in source scan.

/* zran.c -- example of zlib/gzip stream indexing and random access

* Copyright (C) 2005, 2012 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

Version 1.1 29 Sep 2012 Mark Adler */

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/zran.c

No license file was found, but licenses were detected in source scan.

/* infback.c -- inflate using a call-back interface

* Copyright (C) 1995-2016 Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/infback.c

No license file was found, but licenses were detected in source scan.

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Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/zlib_how.html

No license file was found, but licenses were detected in source scan.

/* minigzip.c -- simulate gzip using the zlib compression library

* Copyright (C) 1995-2006, 2010, 2011, 2016 Jean-loup Gailly

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/test/minigzip.c

No license file was found, but licenses were detected in source scan.

/* uncompr.c -- decompress a memory buffer

* Copyright (C) 1995-2003, 2010, 2014, 2016 Jean-loup Gailly, Mark Adler

* For conditions of distribution and use, see copyright notice in zlib.h

*/

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/uncompr.c

No license file was found, but licenses were detected in source scan.

```
/* unzip.h -- IO for uncompress .zip files using zlib
Version 1.1, February 14h, 2010
part of the MiniZip project - ( http://www.winimage.com/zLibDll/minizip.html )
```

Copyright (C) 1998-2010 Gilles Vollant ([minizip](http://www.winimage.com/zLibDll/minizip.html)) (<http://www.winimage.com/zLibDll/minizip.html>)

Modifications of Unzip for Zip64
Copyright (C) 2007-2008 Even Rouault

Modifications for Zip64 support on both zip and unzip
Copyright (C) 2009-2010 Mathias Svensson (<http://result42.com>)

For more info read MiniZip_info.txt

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3. This notice may not be removed or altered from any source distribution.

Changes

See header of unzip64.c

*/

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/contrib/minizip/unzip.h
```

No license file was found, but licenses were detected in source scan.

```
/* inflate.h -- internal inflate state definition
* Copyright (C) 1995-2016 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/inflate.h
```

No license file was found, but licenses were detected in source scan.

```
/* gzlog.h
Copyright (C) 2004, 2008, 2012 Mark Adler, all rights reserved
version 2.2, 14 Aug 2012
```

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Mark Adler madler@alumni.caltech.edu

```
*/
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/gzlog.h
```

No license file was found, but licenses were detected in source scan.

```
/* gzwrite.c -- zlib functions for writing gzip files
* Copyright (C) 2004-2017 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/gzwrite.c
```

No license file was found, but licenses were detected in source scan.

```
/* inflate.c -- zlib decompression
* Copyright (C) 1995-2016 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/inflate.c
No license file was found, but licenses were detected in source scan.
```

```
/* inffast.c -- fast decoding
* Copyright (C) 1995-2017 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/inffast.c
No license file was found, but licenses were detected in source scan.
```

ZLIB DATA COMPRESSION LIBRARY

zlib 1.2.11 is a general purpose data compression library. All the code is thread safe. The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://tools.ietf.org/html/rfc1950> (zlib format), [rfc1951](http://tools.ietf.org/html/rfc1951) (deflate format) and [rfc1952](http://tools.ietf.org/html/rfc1952) (gzip format).

All functions of the compression library are documented in the file `zlib.h` (volunteer to write man pages welcome, contact zlib@gzip.org). A usage example of the library is given in the file `test/example.c` which also tests that the library is working correctly. Another example is given in the file `test/minigzip.c`. The compression library itself is composed of all source files in the root directory.

To compile all files and run the test program, follow the instructions given at the top of `Makefile.in`. In short `./configure; make test`, and if that goes well, `make install` should work for most flavors of Unix. For Windows, use one of the special makefiles in `win32/` or `contrib/vstudio/`. For VMS, use `make_vms.com`.

Questions about zlib should be sent to [<zlib@gzip.org>](mailto:zlib@gzip.org), or to Gilles Vollant [<info@winimage.com>](mailto:info@winimage.com) for the Windows DLL version. The zlib home page is <http://zlib.net/>. Before reporting a problem, please check this site to verify that you have the latest version of zlib; otherwise get the latest version and check whether the problem still exists or not.

PLEASE read the zlib FAQ http://zlib.net/zlib_faq.html before asking for help.

Mark Nelson [<markn@ieee.org>](mailto:markn@ieee.org) wrote an article about zlib for the Jan. 1997

issue of Dr. Dobb's Journal; a copy of the article is available at <http://marknelson.us/1997/01/01/zlib-engine/> .

The changes made in version 1.2.11 are documented in the file ChangeLog.

Unsupported third party contributions are provided in directory contrib/ .

zlib is available in Java using the java.util.zip package, documented at <http://java.sun.com/developer/technicalArticles/Programming/compression/> .

A Perl interface to zlib written by Paul Marquess <pmqs@cpan.org> is available at CPAN (Comprehensive Perl Archive Network) sites, including <http://search.cpan.org/~pmqs/IO-Compress-Zlib/> .

A Python interface to zlib written by A.M. Kuchling <amk@amk.ca> is available in Python 1.5 and later versions, see <http://docs.python.org/library/zlib.html> .

zlib is built into tcl: <http://wiki.tcl.tk/4610> .

An experimental package to read and write files in .zip format, written on top of zlib by Gilles Vollant <info@winimage.com>, is available in the contrib/minizip directory of zlib.

Notes for some targets:

- For Windows DLL versions, please see win32/DLL_FAQ.txt
- For 64-bit Irix, deflate.c must be compiled without any optimization. With -O, one libpng test fails. The test works in 32 bit mode (with the -n32 compiler flag). The compiler bug has been reported to SGI.
- zlib doesn't work with gcc 2.6.3 on a DEC 3000/300LX under OSF/1 2.1 it works when compiled with cc.
- On Digital Unix 4.0D (formely OSF/1) on AlphaServer, the cc option -std1 is necessary to get gzprintf working correctly. This is done by configure.
- zlib doesn't work on HP-UX 9.05 with some versions of /bin/cc. It works with other compilers. Use "make test" to check your compiler.
- gzdopen is not supported on RISCOS or BEOS.
- For PalmOs, see <http://palmzlib.sourceforge.net/>

Acknowledgments:

The deflate format used by zlib was defined by Phil Katz. The deflate and zlib specifications were written by L. Peter Deutsch. Thanks to all the people who reported problems and suggested various improvements in zlib; they are too numerous to cite here.

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Jean-loup Gailly Mark Adler
jloup@gzip.org madler@alumni.caltech.edu

If you use the zlib library in a product, we would appreciate *not* receiving lengthy legal documents to sign. The sources are provided for free but without warranty of any kind. The library has been entirely written by Jean-loup Gailly and Mark Adler; it does not include third-party code.

If you redistribute modified sources, we would appreciate that you include in the file ChangeLog history information documenting your changes. Please read the FAQ for more information on the distribution of modified source versions.

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/README
No license file was found, but licenses were detected in source scan.
```

```
/* gzguts.h -- zlib internal header definitions for gz* operations
* Copyright (C) 2004, 2005, 2010, 2011, 2012, 2013, 2016 Mark Adler
* For conditions of distribution and use, see copyright notice in zlib.h
*/
```

Found in path(s):

* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/gzguts.h
No license file was found, but licenses were detected in source scan.

ZLIB DATA COMPRESSION LIBRARY

zlib 1.2.11 is a general purpose data compression library. All the code is thread safe. The data format used by the zlib library is described by RFCs (Request for Comments) 1950 to 1952 in the files <http://www.ietf.org/rfc/rfc1950.txt> (zlib format), [rfc1951.txt](http://www.ietf.org/rfc/rfc1951.txt) (deflate format) and [rfc1952.txt](http://www.ietf.org/rfc/rfc1952.txt) (gzip format).

All functions of the compression library are documented in the file `zlib.h` (volunteer to write man pages welcome, contact zlib@gzip.org). Two compiled examples are distributed in this package, `example` and `minigzip`. The `example_d` and `minigzip_d` flavors validate that the `zlib1.dll` file is working correctly.

Questions about zlib should be sent to [<zlib@gzip.org>](mailto:zlib@gzip.org). The zlib home page is <http://zlib.net/>. Before reporting a problem, please check this site to verify that you have the latest version of zlib; otherwise get the latest version and check whether the problem still exists or not.

PLEASE read `DLL_FAQ.txt`, and the the zlib FAQ http://zlib.net/zlib_faq.html before asking for help.

Manifest:

The package `zlib-1.2.11-win32-x86.zip` will contain the following files:

<code>README-WIN32.txt</code>	This document
<code>ChangeLog</code>	Changes since previous zlib packages
<code>DLL_FAQ.txt</code>	Frequently asked questions about <code>zlib1.dll</code>
<code>zlib.3.pdf</code>	Documentation of this library in Adobe Acrobat format
<code>example.exe</code>	A statically-bound example (using <code>zlib.lib</code> , not the dll)
<code>example.pdb</code>	Symbolic information for debugging <code>example.exe</code>
<code>example_d.exe</code>	A <code>zlib1.dll</code> bound example (using <code>zdll.lib</code>)
<code>example_d.pdb</code>	Symbolic information for debugging <code>example_d.exe</code>
<code>minigzip.exe</code>	A statically-bound test program (using <code>zlib.lib</code> , not the dll)
<code>minigzip.pdb</code>	Symbolic information for debugging <code>minigzip.exe</code>
<code>minigzip_d.exe</code>	A <code>zlib1.dll</code> bound test program (using <code>zdll.lib</code>)
<code>minigzip_d.pdb</code>	Symbolic information for debugging <code>minigzip_d.exe</code>
<code>zlib.h</code>	Install these files into the compilers' INCLUDE path to
<code>zconf.h</code>	compile programs which use <code>zlib.lib</code> or <code>zdll.lib</code>

zdll.lib Install these files into the compilers' LIB path if linking
zdll.exp a compiled program to the zlib1.dll binary

zlib.lib Install these files into the compilers' LIB path to link zlib
zlib.pdb into compiled programs, without zlib1.dll runtime dependency
 (zlib.pdb provides debugging info to the compile time linker)

zlib1.dll Install this binary shared library into the system PATH, or
 the program's runtime directory (where the .exe resides)

zlib1.pdb Install in the same directory as zlib1.dll, in order to debug
 an application crash using WinDbg or similar tools.

All .pdb files above are entirely optional, but are very useful to a developer attempting to diagnose program misbehavior or a crash. Many additional important files for developers can be found in the zlib127.zip source package available from <http://zlib.net/> - review that package's README file for details.

Acknowledgments:

The deflate format used by zlib was defined by Phil Katz. The deflate and zlib specifications were written by L. Peter Deutsch. Thanks to all the people who reported problems and suggested various improvements in zlib; they are too numerous to cite here.

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Jean-loup Gailly Mark Adler

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Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/win32/README-WIN32.txt
```

No license file was found, but licenses were detected in source scan.

```
/* fitblk.c: example of fitting compressed output to a specified size
   Not copyrighted -- provided to the public domain
   Version 1.1 25 November 2004 Mark Adler */
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/fitblk.c
```

No license file was found, but licenses were detected in source scan.

```
/*
 * gzlog.c
 * Copyright (C) 2004, 2008, 2012, 2016 Mark Adler, all rights reserved
 * For conditions of distribution and use, see copyright notice in gzlog.h
 * version 2.2, 14 Aug 2012
 */
```

Found in path(s):

```
* /opt/cola/permits/1394173797_1660873286.0583425/0/zlib-1-2-11-dfsg-orig-2-tar-xz/zlib-1.2.11/examples/gzlog.c
```

1.16 python-setuptools 65.5.0

1.16.1 Available under license :

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1.17 zlib 1.2.13

1.17.1 Available under license :

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1.18 expat 2.5.0

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1.19 python 3.11.1

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A. HISTORY OF THE SOFTWARE

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <https://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <https://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization

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Release	Derived from	Year	Owner	GPL-compatible? (1)
0.9.0 thru 1.2		1991-1995	CWI	yes
1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
2.1	2.0+1.6.1	2001	PSF	no
2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
2.1.3	2.1.2	2002	PSF	yes
2.2 and above	2.1.1	2001-now	PSF	yes

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1.21 zlib 1.2.7-21.el7_9

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1.22 bzip2 1.0.6-13.el7

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Julian Seward, jseward@bzip.org
bzip2/libbzip2 version 1.0.6 of 6 September 2010

1.23 wheel 0.40.0

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1.24 attrs 23.1.0

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Both were inspired by Twisted's

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1.25 openssl 1.1.1u

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```
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under certain conditions; type `show c' for details.
```

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```
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```

```
<signature of Ty Coon>, 1 April 1989  
Ty Coon, President of Vice
```

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The End

1.26 python 3.11.4

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Python was created in the early 1990s by Guido van Rossum at Stichting Mathematisch Centrum (CWI, see <https://www.cwi.nl>) in the Netherlands as a successor of a language called ABC. Guido remains Python's principal author, although it includes many contributions from others.

In 1995, Guido continued his work on Python at the Corporation for National Research Initiatives (CNRI, see <https://www.cnri.reston.va.us>) in Reston, Virginia where he released several versions of the software.

In May 2000, Guido and the Python core development team moved to BeOpen.com to form the BeOpen PythonLabs team. In October of the same year, the PythonLabs team moved to Digital Creations, which became Zope Corporation. In 2001, the Python Software Foundation (PSF, see <https://www.python.org/psf/>) was formed, a non-profit organization created specifically to own Python-related Intellectual Property.

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1.3 thru 1.5.2	1.2	1995-1999	CNRI	yes
1.6	1.5.2	2000	CNRI	no
2.0	1.6	2000	BeOpen.com	no
1.6.1	1.6	2001	CNRI	yes (2)
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2.0.1	2.0+1.6.1	2001	PSF	yes
2.1.1	2.1+2.0.1	2001	PSF	yes
2.1.2	2.1.1	2002	PSF	yes
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1.27 jsonschema 4.18.3

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1.28 pyyaml 6.0.1

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1.29 cryptography 41.0.3

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1.30 openssl 3.1.2

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```

```
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Ty Coon, President of Vice
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1.35 util-linux 2.37.4-1.fc35

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```
NR START  END SECTORS SIZE NAME UUID
1  32 7679  7648 3.7M   8f8378c0-01
2 7680 16383  8704 4.3M   8f8378c0-02
5 7936 12799  4864 2.4M
6 12544 16127  3584 1.8M
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```
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# generate an MD5 that is not unique and can be matched against a known MIT MD5 sum.
set -e

calculate_md5_sum() {
  local FILE="$1"

  # Read the contents of the file into a variable
  local raw_license_text=$(<"$FILE")

  # Convert to lowercase
  local lowercase_license_text="${raw_license_text,,}"

  # Remove anything before the beginning of the license
  local stripped_license_text=$(awk '/permission is hereby granted,/{p=1} p' <<< "$lowercase_license_text")

  # Replace line breaks (Windows or Linux) with a single space
  local replaced_linebreaks=$(tr "\r\n" ' ' <<< "$stripped_license_text")

  # Replace multiple spaces with a single space
  local normalized_license_text=$(tr -s ' ' <<< "$replaced_linebreaks")

  # Strip away any non-printable, non-whitespace characters
  local clean_unprintable_license_text=$(tr -cd '[:print:][:space:]' <<< "$normalized_license_text")
```

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# Remove punctuation and special characters
local clean_license_text=$(echo "$clean_unprintable_license_text" | sed 's/[^a-zA-Z ]//g')

# Calculate the MD5 sum of the cleaned license text
local MD5SUM=$(echo -n "$clean_license_text" | md5sum | awk '{print $1}')

# Output the MD5 sum
echo "$MD5SUM"
}

# Check if the FILE argument is provided
if [ -z "$1" ]; then
    echo "Please provide a FILE as an argument."
    exit 1
fi

# Invoke the function with the provided FILE argument
calculate_md5_sum "$1"
WEV @@ WEV[B "1
x ?"U@,5 @mISmIN<GimCN7g1u|E
43mI,5WEV @@ WEV @mImImIAmImImI0mImImI*mImI
A0mImImI...
lost+found...

;9GimCN7g

!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~

!"#$%&'()*+,-
./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~WEV @@
WEV[B "1
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```

version.

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