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src/rdxxhash.[ch] src/lz4\*.[ch]: git@github.com:lz4/lz4.git e2827775ee80d2ef985858727575df31fc60f1f3

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- [Alex Harvey](https://github.com/alexharv074)
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- [David Acacio](https://github.com/dacacioa)
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```

```
<signature of Ty Coon>, 1 April 1989
Ty Coon, President of Vice
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parts of `src/rdmurmur2.c`: `git@github.com:abandoned/murmur2.git`

MurMurHash2 Library

```
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```

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librdkafka - Apache Kafka C driver library

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## 1.6 libunistring 0.9.10-4

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- d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is

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```

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#

# The agreement for individuals can be filled out on the web.

# Names should be added to this file like so:

# Individual's name <submission email address>

# Individual's name <submission email address> <email2> <emailN>

#  
# An entry with multiple email addresses specifies that the  
# first address should be used in the submit logs and  
# that the other addresses should be recognized as the  
# same person when interacting with Gerrit.

# Please keep the list sorted.

Aamir Khan <syst3m.w0rm@gmail.com>  
Aaron Beitch <aaronb@arista.com>  
Aaron Bieber <deftly@gmail.com>  
Aaron Cannon <cannona@fireantproductions.com>  
Aaron France <aaron.l.france@gmail.com>  
Aaron Jacobs <jacobsa@google.com>  
Aaron Jensen <jensen.aaro@gmail.com>  
Aaron Kemp <kemp.aaron@gmail.com>  
Aaron Patterson <tenderlove@ruby-lang.org>  
Aaron Sheah <aaronsheah@gmail.com>  
Aaron Stein <aaronstein12@gmail.com>  
Aaron Torres <tcboox@gmail.com>  
Aaron Zinman <aaron@azinman.com>  
Aarti Parikh <aarti.parikh@gmail.com>  
Abdullah Al Maruf <mymail.maruf@gmail.com>  
Abe Haskins <abeisgreat@abeisgreat.com>  
Abhinav Gupta <abhinav.g90@gmail.com>  
Adam Azarchs <adam.azarchs@10xgenomics.com>  
Adam Bender <abender@google.com>  
Adam Eijdenberg <adam@continusec.com>  
Adam Harvey <aharvey@php.net>  
Adam Kisala <adam.kisala@gmail.com>  
Adam Langley <agl@golang.org>  
Adam Medzinski <adam.medzinski@gmail.com>  
Adam Mitha <adam.mitha@gmail.com>  
Adam Shannon <adamkshannon@gmail.com>  
Adam Shelton <aashelt90@gmail.com>  
Adam Sindelar <adamsh@google.com>  
Adam Thomason <athomason@gmail.com>  
Adam Williams <pwnfactory@gmail.com>  
Adam Woodbeck <adam@woodbeck.net>  
Adarsh Ravichandran <adarshravichandran91@gmail.com>  
Adel Rodriguez <adel.rodriguez@leftfieldlabs.com>  
Adin Scannell <ascannell@google.com>  
Aditya Harindar <aditya.harindar@gmail.com>  
Aditya Mukerjee <dev@chimeracoder.net>  
Adrian Hesketh <adrianhesketh@hushmail.com>  
Adrian Nos <nos.adrian@gmail.com>  
Adrian O'Grady <elpollouk@gmail.com>  
Adrien Bustany <adrien-xx-google@bustany.org>

Adrien Delorme <adrien.delorme@icloud.com>  
Adrien Petel <peteladrien@gmail.com>  
Acio Jnior <aeciodantasjunior@gmail.com>  
Aeneas Rekkas (arekkas) <aeneas@ory.am>  
Afanasev Stanislav <phpprogger@gmail.com>  
Agis Anastasopoulos <agis.anast@gmail.com>  
Agniva De Sarker <agnivade@yahoo.co.in>  
Ahmed W. Mones <oneofone@gmail.com>  
Ahmet Aktrk <aakturk000@gmail.com>  
Ahmet Alp Balkan <ahmetb@google.com>  
Ahmet Soormally <ahmet@mangomm.co.uk>  
Ahmy Yulrizka <yulrizka@gmail.com>  
Ahsun Ahmed <ahmed.ahsun@gmail.com>  
Aidan Coyle <packrat386@gmail.com>  
Aiden Scandella <ai@uber.com>  
Ainar Garipov <gugl.zadolbal@gmail.com>  
Aishraj Dahal <aishraj@users.noreply.github.com>  
Ajanthan Balachandran <balaajanathan@gmail.com>  
Akhil Indurti <aindurti@gmail.com>  
Akihiro Suda <suda.kyoto@gmail.com>  
Akshat Kumar <seed@mail.nanosouffle.net>  
Al Cutter <al@google.com>  
Alan Braithwaite <alan@ipaddr.org>  
Alan Donovan <adonovan@google.com>  
Alan Shreve <alan@inconshreveable.com>  
Albert Nigmatzianov <albertnigma@gmail.com>  
Albert Strasheim <fullung@gmail.com>  
Albert Teoh <albert.teoh@gmail.com>  
Albert Yu <yukinying@gmail.com>  
Alberto Bertogli <albertito@blitiri.com.ar>  
Alberto Donizetti <alb.donizetti@gmail.com>  
Alberto Garca Hierro <alberto@garciahierro.com> <alberto.garcia.hierro@gmail.com>  
Alec Benzer <alec.benzer@gmail.com>  
Alejandro Garca Montoro <alejandro.garciamontoro@gmail.com>  
Aleksa Sarai <cyphar@cyphar.com>  
Aleksandar Dezelin <dezelin@gmail.com>  
Aleksandr Lukinykh <a.lukinykh@xsolla.com>  
Aleksandr Razumov <ar@cydev.ru>  
Alekseev Artem <a.artem060@gmail.com>  
Aleksei Tirman <aleksei.tirman@jetbrains.com>  
Alessandro Arzilli <alessandro.arzilli@gmail.com>  
Alessandro Baffa <alessandro.baffa@gmail.com>  
Alex A Skinner <alex@lx.lc>  
Alex Brainman <alex.brainman@gmail.com>  
Alex Bramley <abramley@google.com>  
Alex Browne <stephenalexbrowne@gmail.com>  
Alex Buchanan <buchanae@gmail.com>  
Alex Carol <alex.carol.c@gmail.com>

Alex Gaynor <alex@alloy.us>  
Alex Harford <alex.harford@saucelabs.com>  
Alex Hays <alex.hays@leftfieldlabs.com>  
Alex Jin <toalexjin@gmail.com>  
Alex Kohler <alexjohnkohler@gmail.com>  
Alex Myasoedov <msoedov@gmail.com>  
Alex Opie <amtopie@gmail.com>  
Alex Plugaru <alex@plugaru.org> <alexandru.plugaru@gmail.com>  
Alex Schade <39062967+aschade92@users.noreply.github.com>  
Alex Schroeder <alex@gnu.org>  
Alex Sergeev <abc@alexsergeev.com>  
Alex Tokarev <aleksator@gmail.com>  
Alex Vaghin <crhyme@google.com>  
Alex Zhirov <azhirov@google.com>  
Alexander Demakin <alexander.demakin@gmail.com>  
Alexander Dring <email@alex.d.ch>  
Alexander F Rdseth <alexander.rodseth@appeartv.com>  
Alexander Greim <alexxx@iltempo.de>  
Alexander Guz <kalimatas@gmail.com>  
Alexander Kauer <alexander@affine.space>  
Alexander Klauer <Alexander.Klauer@googlemail.com>  
Alexander Kucherenko <alxkchr@gmail.com>  
Alexander Larsson <alexander.larsson@gmail.com>  
Alexander Lourier <aml@rulezz.ru>  
Alexander Melentyev <alexander@melentyev.org>  
Alexander Menzhinsky <amenzhinsky@gmail.com>  
Alexander Morozov <lk4d4math@gmail.com>  
Alexander Neumann <alexander@bumpen.de>  
Alexander Nohe <alex.nohe427@gmail.com>  
Alexander Orlov <alexander.orlov@loxal.net>  
Alexander Pantyukhin <apantykhin@gmail.com>  
Alexander Polcyn <apolcyn@google.com>  
Alexander Rakoczy <alex@golang.org>  
Alexander Reece <awreece@gmail.com>  
Alexander Surma <surma@surmair.de>  
Alexander Yastrebov <yastrebov.alex@gmail.com>  
Alexander Zhavnerchik <alex.vizor@gmail.com>  
Alexander Zillion <alex@alexzillion.com>  
Alexander Zolotov <goldifit@gmail.com>  
Alexandr Mayorskiy <a.mayorskiy@corp.mail.ru>  
Alexandre Cesaro <alexandre.cesaro@gmail.com>  
Alexandre Fiori <fiorix@gmail.com>  
Alexandre Maari <draeron@gmail.com>  
Alexandre Normand <alexandre.normand@gmail.com>  
Alexandre Parentea <aubonbeurre@gmail.com>  
Alexandre Viau <alexandre@alexandreviau.net>  
Alexandru Mooi <brtznr@gmail.com>  
Alexei Sholik <alcosholik@gmail.com>

Alexey Alexandrov <aalexand@google.com>  
Alexey Borzenkov <snaury@gmail.com>  
Alexey Naidonov <alexey.naidyonov@gmail.com>  
Alexey Neganov <neganovalexey@gmail.com>  
Alexey Palazhchenko <alexey.palazhchenko@gmail.com>  
Alexey Semenyuk <alexsemenyuk88@gmail.com>  
Alexey Vilenskiy <bynovhack@gmail.com>  
Alexis Hildebrandt <surryhill@gmail.com>  
Alexis Hunt <lexer@google.com>  
Alexis Imperial-Legrand <ail@google.com>  
Ali Farooq <ali.farooq0@pm.me>  
Ali Rizvi-Santiago <arizvisa@gmail.com>  
Aliaksandr Valialkin <valyala@gmail.com>  
Alice Merrick <amerrick@google.com>  
Alif Rachmawadi <subosito@gmail.com>  
Allan Guwatudde <guwats10@gmail.com>  
Allan Simon <allan.simon@supinfo.com>  
Allen Li <ayatane@google.com>  
Alok Menghrajani <alok.menghrajani@gmail.com>  
Alwin Doss <alwindoss84@gmail.com>  
Aman Gupta <aman@tmm1.net>  
Amarjeet Anand <amarjeetanandsingh@gmail.com>  
Amelia Downs <adowns@vmware.com>  
Amir Mohammad Saied <amir@gluegadget.com>  
Amit Kumar <mittalmailbox@gmail.com>  
Amr Mohammed <merodiro@gmail.com>  
Amrut Joshi <amrut.joshi@gmail.com>  
An Long <aisk1988@gmail.com>  
An Xiao <hac@zju.edu.cn>  
Anand K. Mistry <anand@mistry.ninja>  
Ananya Saxena <ananyasaxena1@gmail.com>  
Anatol Pomozov <anatol.pomozov@gmail.com>  
Anders Pearson <anders@columbia.edu>  
Anderson Queiroz <contato@andersonq.eti.br>  
Andr Carvalho <asantostc@gmail.com>  
Andre Marianiello <andremarianiello@users.noreply.github.com>  
Andr Martins <aanm90@gmail.com>  
Andre Nathan <andrenth@gmail.com>  
Andrea Nodari <andrea.nodari91@gmail.com>  
Andrea Simonini <andrea.simonini@gmail.com>  
Andrea Spadaccini <spadaccio@google.com>  
Andreas Auernhammer <aead@mail.de>  
Andreas Jellinghaus <andreas@ionisiert.de> <anj@google.com>  
Andreas Litt <andreas.litt@gmail.com>  
Andrei Enshin <b1os@bk.ru>  
Andrei Gherzan <andrei@resin.io>  
Andrei Korzhevskii <a.korzhevskiy@gmail.com>  
Andrei Matei <andrei@cockroachlabs.com>



Andrei Tudor Clin <mail@acln.ro>  
Andrei Vagin <avagin@google.com>  
Andrei Vieru <euvieru@gmail.com>  
Andres Erbsen <andreser@google.com>  
Andres Lowrie <andres.lowrie@gmail.com>  
Andrew Austin <andrewaact@gmail.com>  
Andrew Balholm <andybalholm@gmail.com>  
Andrew Benton <andrewmbenton@gmail.com>  
Andrew Bonventre <andybons@chromium.org>  
Andrew Braunstein <awbraunstein@gmail.com>  
Andrew Bursavich <abursavich@gmail.com>  
Andrew Ekstedt <andrew.ekstedt@gmail.com>  
Andrew Etter <andrew.etter@gmail.com>  
Andrew G. Morgan <agm@google.com>  
Andrew Gerrand <adg@golang.org>  
Andrew Harding <andrew@spacemonkey.com>  
Andrew Jackura <ajackura@google.com>  
Andrew Kemm <andrewkemm@gmail.com>  
Andrew LeFevre <capnspacehook@gmail.com>  
Andrew Louis <alouis@digitalocean.com>  
Andrew Lutomirski <andy@luto.us>  
Andrew Medvedev <andrew.y.medvedev@gmail.com>  
Andrew Pilloud <andrewpilloud@igneoussystem.com>  
Andrew Pogrebnoy <absourd.noise@gmail.com>  
Andrew Poydence <apoydence@pivotal.io>  
Andrew Pritchard <awpritchard@gmail.com>  
Andrew Radev <andrey.radev@gmail.com>  
Andrew Skiba <skibaa@gmail.com>  
Andrew Stormont <astormont@racktopsystems.com>  
Andrew Stribblehill <ads@wompom.org>  
Andrew Szeto <andrew@jabagawee.com>  
Andrew Todd <andrew.todd@wework.com>  
Andrew Wansink <wansink@uber.com>  
Andrew Werner <andrew@upthere.com> <awerner32@gmail.com>  
Andrew Wilkins <axwalk@gmail.com>  
Andrew Williams <williams.andrew@gmail.com>  
Andrew Z Allen <me@andrewzallen.com>  
Andrey Bokhanko <andreybokhanko@gmail.com>  
Andrey Mirtchovski <mirtchovski@gmail.com>  
Andrey Petrov <andrey.petrov@shazow.net>  
Andrii Soldatenko <andrii.soldatenko@gmail.com>  
Andrii Soluk <isoluchok@gmail.com>  
Andriy Lytvynov <lytvynov.a.v@gmail.com>  
Andrzej eel <andrii.zhezhel@gmail.com>  
Andy Balholm <andy@balholm.com>  
Andy Davis <andy@bigandian.com>  
Andy Finkenstadt <afinkenstadt@zynga.com>  
Andy Lindeman <andy@lindeman.io>

Andy Maloney <asmaloney@gmail.com>  
Andy Pan <panjf2000@gmail.com> <panjf2000@golangcn.org> <i@andypan.me>  
Andy Walker <walkeraj@gmail.com>  
Andy Wang <cbeuw.andy@gmail.com>  
Andy Williams <andy@andy.xyz>  
Andy Zhao <andyzhao@google.com>  
Andzej Maciusovic <andzej.maciusovic@gmail.com>  
Anfernee Yongkun Gui <anfernee.gui@gmail.com>  
Angelo Bulfone <mbulfone@gmail.com>  
Anh Hai Trinh <anh.hai.trinh@gmail.com>  
Anit Gandhi <anitgandhi@gmail.com>  
Ankit Goyal <ankit3goyal@gmail.com>  
Anmol Sethi <anmol@aubble.com>  
Annirudh Prasad <annirudh@wandb.com>  
Anschel Schaffer-Cohen <anschelsc@gmail.com>  
Anthony Alves <cvballa3g0@gmail.com>  
Anthony Canino <anthony.canino1@gmail.com>  
Anthony Eufemio <anthony.eufemio@gmail.com>  
Anthony Fok <foka@debian.org>  
Anthony Martin <ality@pbrane.org>  
Anthony Sottile <asottile@umich.edu>  
Anthony Starks <ajstarks@gmail.com>  
Anthony Voutas <voutasaurus@gmail.com>  
Anthony Woods <awoods@raintank.io>  
Antoine GIRARD <sapk@sapk.fr>  
Antoine Martin <antoine97.martin@gmail.com>  
Anton Gyllenberg <anton@iki.fi>  
Anton Kuklin <anton.a.kuklin@gmail.com>  
Antonin Amand <antonin.amand@gmail.com>  
Antonio Antelo <aantelov87@gmail.com>  
Antonio Bibiano <antbbn@gmail.com>  
Antonio Garcia <garcia.olais@gmail.com>  
Antonio Huete Jimenez <tuxillo@quantumachine.net>  
Antonio Murdaca <runcom@redhat.com>  
Antonio Ojea <antonio.ojea.garcia@gmail.com>  
Antonio Troina <thoeni@gmail.com>  
Anze Kolar <me@akolar.com>  
Aofei Sheng <aofei@aofeisheng.com>  
Apisak Darakananda <pongad@gmail.com>  
Aram Hvrneanu <aram@mgk.ro>  
Araragi Hokuto <kanseihonbucho@protonmail.com>  
Arash Bina <arash@arash.io>  
Archana Ravindar <aravind5@in.ibm.com>  
Arda Gl <ardaguclu@gmail.com>  
Areski Belaid <areski@gmail.com>  
Ariel Mashraki <ariel@mashraki.co.il>  
Arkadi Pyuro <arkadi@google.com>  
Arlo Breault <arlolra@gmail.com>

Arnaud Ysmal <arnaud.ysmal@gmail.com>  
Arne Hormann <arnehormann@gmail.com>  
Arnout Engelen <arnout@bzzt.net>  
Aron Nopanen <aron.nopanen@gmail.com>  
Arran Walker <arran.walker@fiveturns.org>  
Artem Alekseev <artem.alekseev@intel.com>  
Artem Khvastunov <artem.khvastunov@jetbrains.com>  
Artem Kolin <artemkaxboy@gmail.com>  
Arthur Fabre <arthur@arthurfabre.com>  
Arthur Khashaev <arthur@khashaev.ru>  
Artur M. Wolff <artur.m.wolff@gmail.com>  
Artyom Pervukhin <artyom.pervukhin@gmail.com>  
Arvindh Rajesh Tamilmani <art@a-30.net>  
Ashish Bhate <ab.listsubs@gmail.com>  
Ashish Gandhi <ag@ashishgandhi.org>  
Asim Shankar <asimshankar@gmail.com>  
Assel Meher <asselmeher@gmail.com>  
Atin Malaviya <amalaviy@akamai.com>  
Ato Araki <ato.araki@gmail.com>  
Atsushi Toyama <atsushi.tohyama.160.333@gmail.com>  
Audrey Lim <audreylh@gmail.com>  
Audrius Butkevicius <audrius.butkevicius@gmail.com>  
Augusto Roman <aroman@gmail.com>  
Aulus Egnatius Varialus <varialus@gmail.com>  
Aurlien Rainone <aurelien.rainone@gmail.com>  
Aurlio A. Heckert <aurium@gmail.com>  
Austin Clements <austin@google.com> <aclements@csail.mit.edu>  
Avi Flax <avi@timehop.com>  
Aviv Klasquin Komissar <avivklas@gmail.com>  
awaw fumin <awawfumin@gmail.com>  
Awn Umar <awn@cryptolosophy.io>  
Axel Wagner <axel.wagner.hh@googlemail.com>  
Ayan George <ayan@ayan.net>  
Ayanamist Yang <ayanamist@gmail.com>  
Ayke van Laethem <aykevanlaethem@gmail.com>  
Aymerick Jhanne <aymerick@jehanne.org>  
Ayzat Sadykov <ayzat.ziko.93@gmail.com>  
Azat Kaumov <kaumov.a.r@gmail.com>  
Baiju Muthukadan <baiju.m.mail@gmail.com>  
Balaram Makam <bmakam.qdt@qualcommdatacenter.com>  
Balazs Leczb <leczb@google.com>  
Baokun Lee <nototon@gmail.com> <bk@golangcn.org>  
Barnaby Keene <accounts@southcla.ws>  
Bartomiej Klimczak <bartlomiej.klimczak88@gmail.com>  
Bartosz Grzybowski <melkorm@gmail.com>  
Bartosz Oler <brtsz@google.com>  
Bassam Ojeil <bojeil@google.com>  
Bastian Ike <bastian.ike@gmail.com>

Ben Burkert <ben@benburkert.com>  
Ben Cartwright-Cox <Ben@Benjojo.co.uk>  
Ben Eitzen <eitzenb@golang.org>  
Ben Fried <ben.fried@gmail.com>  
Ben Haines <bhainesva@gmail.com>  
Ben Hoyt <benhoyt@gmail.com>  
Ben Hutchings <ben.hutchings@essensium.com>  
Ben Kraft <benkraft@khanacademy.org>  
Ben Laurie <ben@links.org> <benl@google.com>  
Ben Lubar <ben.lubar@gmail.com>  
Ben Lynn <benlynn@gmail.com>  
Ben Olive <sionide21@gmail.com>  
Ben Schwartz <bemasc@google.com>  
Ben Shi <powerman1st@163.com>  
Ben Toews <mastahyeti@gmail.com>  
Benjamin Barenblat <bbaren@google.com>  
Benjamin Black <b@b3k.us>  
Benjamin Cable <cable.benjamin@gmail.com>  
Benjamin Hsieh <tanookiben@users.noreply.github.com>  
Benjamin Peterson <benjamin@python.org>  
Benjamin Prosnitz <bprosnitz@google.com>  
Benjamin Wester <bwester@squareup.com>  
Benjamin Wuethrich <benjamin.wuethrich@gmail.com>  
Benny Siegert <bsiegert@gmail.com>  
Benoit Sigoure <tsunanet@gmail.com>  
Berengar Lehr <Berengar.Lehr@gmx.de>  
Berkant Ipek <41230766+0xbkt@users.noreply.github.com>  
Beth Brown <ecbrown@google.com>  
Bharath Kumar Uppala <uppala.bharath@gmail.com>  
Bharath Thiruveedula <tbarath91@gmail.com>  
Bhavin Gandhi <bhavin7392@gmail.com>  
Bill Neubauer <wcn@golang.org> <wcn@google.com> <bill.neubauer@gmail.com>  
Bill O'Farrell <billo@ca.ibm.com>  
Bill Prin <waprin@google.com>  
Bill Thiede <couchmoney@gmail.com>  
Bill Zissimopoulos <billziss@navimatics.com>  
Billie Harold Cleek <bhcleek@gmail.com>  
Billy Lynch <wlynch@google.com>  
Billy Zaelani Malik <m.billyzaelani@gmail.com>  
Bjrn Erik Pedersen <bjorn.erik.pedersen@gmail.com>  
Bjorn Tilleenius <bjorn@tilleenius.me>  
Bjorn Tipling <bjorn.tipling@gmail.com>  
Blain Smith <rebelgeek@blainsmith.com>  
Blake Gentry <blakesgentry@gmail.com>  
Blake Mesdag <blakemesdag@gmail.com>  
Blake Mizerany <blake.mizerany@gmail.com>  
Blixt <me@blixt.nyc>  
Bob Briski <rbriski@gmail.com>

Bob McNaughton <bobmcn@gmail.com>  
Bob Potter <bobby.potter@gmail.com>  
Bobby DeSimone <bobbydesimone@gmail.com>  
Bobby Powers <bobbypowers@gmail.com>  
Boqin Qin <boqqin@gmail.com>  
Boris Nagaev <nagaev@google.com>  
Borja Clemente <borja.clemente@gmail.com>  
Boshi Lian <bolian@microsoft.com>  
Brad Burch <brad.burch@gmail.com>  
Brad Erickson <bderickson@gmail.com>  
Brad Fitzpatrick <bradfitz@golang.org> <bradfitz@gmail.com>  
Brad Garcia <bgarcia@golang.org>  
Brad Jones <rbjones@google.com>  
Brad Morgan <brad@morgabra.com>  
Brad Whitaker <bwhitaker@fastly.com>  
Braden Bassingthwaite <bbassingthwaite@vendasta.com>  
Bradford Lamson-Scribner <brad.lamson@gmail.com>  
Bradley Falzon <brad@teambrod.net>  
Brady Catherman <brady@gmail.com>  
Brady Sullivan <brady@bsull.com>  
Branden J. Brown <zephyrtronium@gmail.com>  
Brandon Bennett <bbennett@fb.com>  
Brandon Gilmore <varz@google.com>  
Brandon Philips <brandon@ifup.org>  
Brandon Ryan <bjryan19@gmail.com>  
Brave Cow <rsr715@gmail.com>  
Brayden Cloud <bcloud@google.com>  
Brendan Daniel Tracey <tracey.brendan@gmail.com>  
Brendan O'Dea <bod@golang.org>  
Brett Cannon <bcannon@gmail.com>  
Brett Merrill <brett.j.merrill94@gmail.com>  
Brian Dellisanti <briandellisanti@gmail.com>  
Brian Downs <brian.downs@gmail.com>  
Brian Falk <falk@logicparty.org>  
Brian G. Merrell <bgmerrell@gmail.com>  
Brian Gitonga Marete <marete@toshnix.com> <bgmarete@gmail.com> <bgm@google.com>  
Brian Kennedy <btkenedy@gmail.com>  
Brian Kessler <brian.m.kessler@gmail.com>  
Brian Ketelsen <bketelsen@gmail.com>  
Brian Slesinsky <skybrian@google.com>  
Brian Smith <ohohvi@gmail.com>  
Brian Starke <brian.starke@gmail.com>  
Bruce Huang <helbingxxx@gmail.com>  
Bryan Alexander <Kozical@msn.com>  
Bryan Boreham <bjboreham@gmail.com>  
Bryan C. Mills <bcmills@google.com>  
Bryan Chan <bryan.chan@ca.ibm.com>  
Bryan Ford <brynosaurus@gmail.com>

Bryan Heden <b.heden@gmail.com>  
Bulat Gaifullin <gaifullinbf@gmail.com>  
Burak Guven <bguven@gmail.com>  
Caine Tighe <arctanofyourface@gmail.com>  
Caio Marcelo de Oliveira Filho <caio.oliveira@intel.com>  
Caleb Martinez <accounts@calebmartinez.com>  
Caleb Spare <cespare@gmail.com>  
Carl Chatfield <carlchatfield@gmail.com>  
Carl Henrik Lunde <chlunde@ifi.uio.no>  
Carl Jackson <carl@stripe.com>  
Carl Johnson <me@carlmjohnson.net>  
Carl Mastrangelo <notcarl@google.com>  
Carl Menezes <carleeto@gmail.com>  
Carl Shapiro <cshapiro@google.com> <cshapiro@golang.org>  
Carlisia Campos <carlisia@grokkingtech.io>  
Carlo Alberto Ferraris <cafxx@strayorange.com>  
Carlos Alexandro Becker <caarlos0@gmail.com>  
Carlos Amedee <carlos@golang.org>  
Carlos Castillo <cookieo9@gmail.com>  
Carlos Cirello <uldericofilho@gmail.com>  
Carlos Eduardo <me@carlosedp.com>  
Carlos Eduardo Seo <cseo@linux.vnet.ibm.com>  
Carlos Iriarte <ciriarte@gmail.com>  
Carlos Souza <carloshrsouza@gmail.com>  
Carolyn Van Slyck <me@carolynvanslyck.com>  
Carrie Bynon <cbynon@gmail.com>  
Carson Hoffman <c@rsonhoffman.com>  
Cary Hull <chull@google.com>  
Case Nelson <case.nelson@gmail.com>  
Casey Callendrello <squeed@gmail.com>  
Casey Marshall <casey.marshall@gmail.com>  
Catalin Nicutar <cnicutar@google.com>  
Catalin Patulea <catalinp@google.com>  
Cathal O'Callaghan <cathalsocallaghan@gmail.com>  
Cedric Staub <cs@squareup.com>  
Cezar S Espinola <cezarsa@gmail.com>  
Chad Rosier <mrosier.qdt@qualcommdatacenter.com>  
ChaiShushan <chaishushan@gmail.com>  
Changkun Ou <hi@changkun.us>  
Channing Kimble-Brown <channing@golang.org>  
Chao Xu <xuchao@google.com>  
Chaoqun Han <hansscv@gmail.com>  
Charles Fenwick Elliott <Charles@FenwickElliott.io>  
Charles Kenney <charlesc.kenney@gmail.com>  
Charles L. Dorian <cldorian@gmail.com>  
Charles Lee <zombie.fml@gmail.com>  
Charles Weill <weill@google.com>  
Charlie Getzen <charlie@bolt.com>

Charlie Moog <moogcharlie@gmail.com>  
Charlotte Brandhorst-Satzkorn <catzkorn@gmail.com>  
Chauncy Cullitan <chauncyc@google.com>  
Chen Zhidong <njutczd@gmail.com>  
Chen Zhihan <energiehund@gmail.com>  
Cheng Wang <wangchengiscool@gmail.com>  
Cherry Mui <cherryyz@google.com>  
Chew Choon Keat <choonkeat@gmail.com>  
Chia-Chi Hsu <wuchi5457@gmail.com>  
Chiawen Chen <golopot@gmail.com>  
Chirag Sukhala <cchirag77@gmail.com>  
Cholerae Hu <choleraehyq@gmail.com>  
Chotepud Teo <AlexRouSg@users.noreply.github.com>  
Chressie Himpel <chressie@google.com>  
Chris Ball <chris@printf.net>  
Chris Biscardi <chris@christopherbiscardi.com>  
Chris Broadfoot <cbro@golang.org>  
Chris Dollin <ehog.hedge@gmail.com>  
Chris Farmiloe <chrisfarms@gmail.com>  
Chris Hines <chris.cs.guy@gmail.com>  
Chris Howey <howeyc@gmail.com>  
Chris Hundt <hundt@google.com>  
Chris Jones <chris@cjones.org> <chris.jones.yar@gmail.com>  
Chris Kastorff <encryptio@gmail.com>  
Chris Le Roy <brompwnie@users.noreply.github.com>  
Chris Lennert <calennert@gmail.com>  
Chris Liles <caveryliles@gmail.com>  
Chris Manghane <cmang@golang.org>  
Chris Marchesi <chrism@vanclueverttech.com>  
Chris McGee <sirnewton\_01@yahoo.ca> <newton688@gmail.com>  
Chris Raynor <raynor@google.com>  
Chris Roche <rodaine@gmail.com>  
Chris Smith <chrsmith@users.noreply.github.com>  
Chris Stockton <chrisstocktonaz@gmail.com>  
Chris Taylor <taylorza@gmail.com>  
Chris Waldon <christopher.waldon.dev@gmail.com>  
Chris Zou <chriszou@ca.ibm.com>  
Christian Alexander <christian@linux.com>  
Christian Couder <chriscool@tuxfamily.org>  
Christian Himpel <chressie@googlemail.com> <chressie@gmail.com>  
Christian Muehlhaeuser <muesli@gmail.com>  
Christian Pellegrin <chri@evolware.org>  
Christian R. Petrin <christianpetrin@gmail.com>  
Christian Svensson <blue@cmd.nu>  
Christine Hansmann <chhansmann@gmail.com>  
Christoffer Buchholz <christoffer.buchholz@gmail.com>  
Christoph Blecker <admin@toph.ca>  
Christoph Hack <christoph@tux21b.org>

Christopher Cahoon <chris.cahoon@gmail.com>  
Christopher Guiney <chris@guiney.net>  
Christopher Henderson <chris@chenderson.org>  
Christopher Hlubek <christopher.hlubek@networkteam.com>  
Christopher Koch <chrisko@google.com>  
Christopher Loessl <cloessl+github@gmail.com>  
Christopher Nelson <nadiasvertex@gmail.com>  
Christopher Nielsen <m4dh4tt3r@gmail.com>  
Christopher Redden <christopher.redden@gmail.com>  
Christopher Swenson <cswenson@google.com>  
Christopher Thomas <53317512+chrissstomas@users.noreply.github.com>  
Christopher Wedgwood <cw@f00f.org>  
Christos Zoulas <christos@zoulas.com> <zoulasc@gmail.com>  
Christy Perez <christy@linux.vnet.ibm.com>  
CL Sung <clsung@gmail.com> <cl\_sung@htc.com>  
Clment Chigot <clement.chigot@atos.net>  
Clement Skau <clementskau@gmail.com>  
Clint J. Edwards <clint.j.edwards@gmail.com>  
Cody Oss <the.cody.oss@gmail.com>  
Colby Ranger <cranger@google.com>  
Colin Arnott <colin@urandom.co.uk>  
Colin Cross <ccross@android.com>  
Colin Edwards <colin@recursivepenguin.com>  
Colin Kennedy <moshen.colin@gmail.com>  
Colin Nelson <colnnelson@google.com>  
Colin Rice <clr@google.com>  
Conrad Irwin <conrad.irwin@gmail.com>  
Conrad Meyer <cemeyer@cs.washington.edu>  
Conrado Gouvea <conradopl@gmail.com>  
Constantin Konstantinidis <constantinkonstantinidis@gmail.com>  
Corey Thomasson <cthom.lists@gmail.com>  
Corne van der Plas <vdplas@gmail.com>  
Cosmos Nicolaou <cnicolaou@google.com>  
Costin Chirvasuta <ctin@google.com>  
Craig Citro <craigcitro@google.com>  
Cristian Staretu <unclejacksons@gmail.com>  
Cristo Garca <cgg.code@gmail.com>  
cui fliter <imcusg@gmail.com>  
Cuihtlauac ALVARADO <cuihtlauac.alvarado@orange.com>  
Cuong Manh Le <cuong@orijtech.com>  
Curtis La Graff <curtis@lagraff.me>  
Cyrill Schumacher <cyrill@schumacher.fm>  
Dai Jie <gzdaijie@gmail.com>  
Dai Wentao <dwt136@gmail.com>  
Daisuke Fujita <dtanshi45@gmail.com>  
Daisuke Suzuki <daisuzu@gmail.com>  
Daker Fernandes Pinheiro <daker.fernandes.pinheiro@intel.com>  
Damian Gryski <dgryski@gmail.com>



Damien Lespiau <damien.lespiau@gmail.com> <damien.lespiau@intel.com>  
Damien Mathieu <42@dmathieu.com>  
Damien Neil <dneil@google.com>  
Damien Tournoud <damien@platform.sh>  
Dan Ballard <dan@mindstab.net>  
Dan Caddigan <goldcaddy77@gmail.com>  
Dan Callahan <dan.callahan@gmail.com>  
Dan Harrington <harringtond@google.com>  
Dan Jacques <dnj@google.com>  
Dan Johnson <computerdruid@google.com>  
Dan McArdle <dmcardle@google.com>  
Dan Peterson <dpiddy@gmail.com>  
Dan Pupius <dan@medium.com>  
Dan Scales <danscales@google.com>  
Dan Sinclair <dan.sinclair@gmail.com>  
Daniel Cohen <dcohen@gatech.edu>  
Daniel Cormier <danielc@knowbe4.com>  
Danil de Kok <me@danieldk.eu>  
Daniel Fleischman <danielfleischman@gmail.com>  
Daniel Ingram <ingramds@appstate.edu>  
Daniel Johansson <dajo2002@gmail.com>  
Daniel Kerwin <d.kerwin@gini.net>  
Daniel Kessler <dkess@google.com>  
Daniel Krech <eikeon@eikeon.com>  
Daniel Kumor <rdkumor@gmail.com>  
Daniel Langner <s8572327@gmail.com>  
Daniel Lidn <daniel.liden.87@gmail.com>  
Daniel Lublin <daniel@lublin.se>  
Daniel Mangum <georgedanielmangum@gmail.com>  
Daniel Marshall <daniel.marshall2@ibm.com>  
Daniel Mart <mvdan@mvdan.cc>  
Daniel McCarney <cpu@letsencrypt.org>  
Daniel Morsing <daniel.morsing@gmail.com>  
Daniel Nadasi <dnadasi@google.com>  
Daniel Nephin <dnephin@gmail.com>  
Daniel Ortiz Pereira da Silva <daniel.particular@gmail.com>  
Daniel S. Fava <danielsfava@gmail.com>  
Daniel Skinner <daniel@dasa.cc>  
Daniel Speichert <daniel@speichert.pl>  
Daniel Theophanes <kardianos@gmail.com>  
Daniel Upton <daniel@floppy.co>  
Daniela Petruzalek <daniela.petruzalek@gmail.com>  
Danish Dua <danishdua@google.com>  
Danish Prakash <grafitykoncept@gmail.com>  
Danny Rosseau <daniel.rosseau@gmail.com>  
Daria Kolistratova <daria.kolistratova@intel.com>  
Darien Raymond <admin@v2ray.com>  
Darren Elwood <darren@textnode.com>

Darren Grant <darren.e.grant@gmail.com>  
Darren McCleary <darren.rmc@gmail.com>  
Darshan Parajuli <parajulidarshan@gmail.com>  
Datong Sun <dndx@idndx.com>  
Dave Borowitz <dborowitz@google.com>  
Dave Bort <dbort@golang.org>  
Dave Cheney <dave@cheney.net>  
Dave Day <djd@golang.org>  
Dave Grijalva <dgrijalva@ngmoco.com>  
Dave MacFarlane <driusan@gmail.com>  
Dave Pifke <dave@pifke.org>  
Dave Russell <forfuncsake@gmail.com>  
David Anderson <danderson@google.com>  
David Barnett <dbarnett@google.com>  
David Benjamin <davidben@google.com>  
David Black <dblack@atlassian.com>  
David Bond <davidsbond93@gmail.com>  
David Brophy <dave@brophy.uk>  
David Brgin <676c7473@gmail.com>  
David Calavera <david.calavera@gmail.com>  
David Carlier <devnexen@gmail.com>  
David Carter <fresco.raja@gmail.com>  
David Chase <drchase@google.com>  
David Covert <davidhcovert@gmail.com>  
David Crawshaw <david.crawshaw@zentus.com> <crawshaw@google.com> <crawshaw@golang.org>  
David du Colombier <0intro@gmail.com>  
David Finkel <david.finkel@gmail.com>  
David Forsythe <dforsythe@gmail.com>  
David G. Andersen <dave.andersen@gmail.com>  
David Glasser <glasser@meteor.com>  
David Golden <david@autoprismatic.com>  
David Heuschmann <heuschmann.d@gmail.com>  
David Howden <dhowden@gmail.com>  
David Hubbard <dsp@google.com>  
David Jakob Fritz <david.jakob.fritz@gmail.com>  
David Jones <dxjones@gmail.com>  
David Lazar <lazard@golang.org>  
David Leon Gil <coruus@gmail.com>  
David McLeish <davemc@google.com>  
David Ndungu <dnjuguna@gmail.com>  
David NewHamlet <david@newhamlet.com>  
David Presotto <presotto@gmail.com>  
David Qu <davidqu12345@gmail.com>  
David R. Jenni <david.r.jenni@gmail.com>  
David Sansome <me@davidsansome.com>  
David Stainton <dstainton415@gmail.com>  
David Symonds <dsymonds@golang.org>  
David Thomas <davidthomas426@gmail.com>

David Timm <dtimm@pivotal.io>  
David Titarenco <david.titarenco@gmail.com>  
David Tolpin <david.tolpin@gmail.com>  
David Url <david@urld.io>  
David Volquartz Lebech <david@lebech.info>  
David Wimmer <davidlwimmer@gmail.com>  
Davies Liu <davies.liu@gmail.com>  
Davor Kapsa <davor.kapsa@gmail.com>  
Dean Eigenmann <7621705+decanus@users.noreply.github.com>  
Dean Prichard <dean.prichard@gmail.com>  
Deepak Jois <deepak.jois@gmail.com>  
Deepak S <deepakspavoodath@gmail.com>  
Denis Bernard <db047h@gmail.com>  
Denis Brandolini <denis.brandolini@gmail.com>  
Denis Isaev <idenx@yandex.com>  
Denis Nagorny <denis.nagorny@intel.com>  
Dennis Kuhnert <mail.kuhnert@gmail.com>  
Denys Honsiorovskyi <honsiorovskyi@gmail.com>  
Denys Smirnov <denis.smirnov.91@gmail.com>  
Derek Buitenhuis <derek.buitenhuis@gmail.com>  
Derek Che <drc@yahoo-inc.com>  
Derek McGowan <derek@mcgstyle.net>  
Derek Parker <parkerderek86@gmail.com>  
Derek Phan <derekphan94@gmail.com>  
Derek Shockey <derek.shockey@gmail.com>  
Dev Ojha <dojha12@gmail.com>  
Dev Zhoujun <dev.zhoujun@gmail.com>  
Devon H. O'Dell <devon.odell@gmail.com>  
Dhaivat Pandit <dhaivatpandit@gmail.com>  
Dhananjay Nakrani <dhananjayn@google.com>  
Dhiru Kholia <dhiru.kholia@gmail.com>  
Dhruvdudd Jadhav <dhruvdudd.jadhav@gmail.com>  
Di Xiao <dixiao@google.com>  
Didier Spezia <didier.06@gmail.com>  
Diego Medina <fmpwizard@gmail.com>  
Diego Siqueira <diego9889@gmail.com>  
Dieter Plaetinck <dieter@raintank.io>  
Dilyn Corner <dilyn.corner@gmail.com>  
Dimitri Sokolyuk <sokolyuk@gmail.com>  
Dimitri Tcaciuc <dtcaciuc@gmail.com>  
Dina Garmash <dgrmsh@gmail.com>  
Diogo Pinela <diogoid7400@gmail.com>  
Dirk Gadsden <dirk@esherido.com>  
Diwaker Gupta <diwakergupta@gmail.com>  
Dmitri Goutnik <dgoutnik@gmail.com>  
Dmitri Popov <operator@cv.dp-net.com>  
Dmitri Shuralyov <dmitshur@golang.org> <dmitri@shuralyov.com>  
Dmitrii Okunev <xaionaro@gmail.com>

Dmitriy Cherchenko <dcherchenko@gmail.com>  
Dmitriy Dudkin <dudkin.dmitriy@gmail.com>  
Dmitriy Shelenin <deemok@googlemail.com> <deemok@gmail.com>  
Dmitriy Vyukov <dvyukov@google.com>  
Dmitry Chestnykh <dchest@gmail.com>  
Dmitry Doroginin <doroginin@gmail.com>  
Dmitry Mottl <dmitry.mottl@gmail.com>  
Dmitry Neverov <dmitry.neverov@gmail.com>  
Dmitry Savintsev <dsavints@gmail.com>  
Dmitry Yakunin <nonamezeil@gmail.com>  
Dmytro Shynkevych <dm.shynk@gmail.com>  
Doga Fincan <doga@icloud.com>  
Domas Tamauskas <puerdomus@gmail.com>  
Domen Ipavec <domen@ipavec.net>  
Dominic Della Valle <ddvpublic@Gmail.com>  
Dominic Green <dominicgreen1@gmail.com>  
Dominik Honnef <dominik.honnef@gmail.com>  
Dominik Vogt <vogt@linux.vnet.ibm.com>  
Don Byington <don@dbyington.com>  
Donald Huang <don.hcd@gmail.com>  
Dong-hee Na <donghee.na92@gmail.com>  
Donovan Hide <donovanhide@gmail.com>  
Doug Anderson <douga@google.com>  
Doug Fawley <dfawley@google.com>  
Douglas Danger Manley <doug.manley@gmail.com>  
Drew Flower <drewvanstone@gmail.com>  
Drew Hintz <adhintz@google.com>  
Drew Richardson <drewrichardson@gmail.com>  
Duco van Amstel <duco.vanamstel@gmail.com>  
Duncan Holm <mail@frou.org>  
Dustin Carlino <dcarlino@google.com>  
Dustin Herbison <djherbis@gmail.com>  
Dustin Long <dustmop@gmail.com>  
Dustin Sallings <dsallings@gmail.com>  
Dustin Shields-Cloues <dcloues@gmail.com>  
Dustin Spicuzza <dustin.spicuzza@gmail.com>  
Dvir Volk <dvir@everything.me> <dvirsky@gmail.com>  
Dylan Waits <dylan@waits.io>  
Ed Schouten <ed@nuxi.nl>  
Edan Bedrik <3d4nb3@gmail.com>  
Eddie Scholtz <escholtz@google.com>  
Eden Li <eden.li@gmail.com>  
Eduard Urbach <e.urbach@gmail.com>  
Eduardo Ramalho <eduardo.ramalho@gmail.com>  
Eduardo Villaseor <evillasrmx@gmail.com>  
Edward Muller <edwardam@interlix.com>  
Egon Elbre <egonelbre@gmail.com>  
Ehren Kret <ehren.kret@gmail.com>

Eitan Adler <lists@eitanadler.com>  
Eivind Uggedal <eivind@uggedal.com>  
El Mostafa Idrassi <el.mostafa.idrassi@gmail.com>  
Elbert Fliek <efliek@gmail.com>  
Eldar Rakhimberdin <ibeono@gmail.com>  
Elena Grahovac <elena@grahovac.me>  
Eli Bendersky <eliben@google.com>  
Elias Naur <mail@eliasnaur.com> <elias.naur@gmail.com>  
Elliot Morrison-Reed <elliottmr@gmail.com>  
Ellison Leao <ellisonleao@gmail.com>  
Elvina Yakubova <elvinayakubova@gmail.com>  
Emerson Lin <linyintor@gmail.com>  
Emil Bektimirov <lefelys@gmail.com>  
Emil Hessman <emil@hessman.se>  
Emil Mursalimov <mursalimovemeel@gmail.com>  
Emilien Kenler <hello@emilienkenler.com>  
Emmanuel Odeke <emm.odeke@gmail.com> <odeke@ualberta.ca>  
Emreacan Bati <emreacanbati@gmail.com>  
Eno Compton <enocom@google.com>  
Eoghan Sherry <ejsherry@gmail.com>  
Eric Biggers <ebiggers@google.com>  
Eric Brown <browne@vmware.com>  
Eric Chiang <eric.chiang.m@gmail.com>  
Eric Clark <zerohp@gmail.com>  
Eric Daniels <eric@erdaniels.com>  
Eric Engestrom <eric@engestrom.ch>  
Eric Garrido <ekg@google.com>  
Eric Koleda <ekoleda+devrel@google.com>  
Eric Lagergren <ericscottlagergren@gmail.com>  
Eric Milliken <emilliken@gmail.com>  
Eric Pauley <eric@pauley.me>  
Eric Ponce <tricokun@gmail.com>  
Eric Rescorla <ekr@rtfm.com>  
Eric Roshan-Eisner <eric.d.eisner@gmail.com>  
Eric Rutherford <erutherford@gmail.com>  
Eric Rykwalder <e.rykwalder@gmail.com>  
Eric Wang <wangchaogo1990@gmail.com>  
Erick Tryzelaar <etryzelaar@google.com>  
Erik Aigner <aigner.erik@gmail.com>  
Erik Dubbelboer <erik@dubbelboer.com>  
Erik St. Martin <alakriti@gmail.com>  
Erik Staab <estaab@google.com>  
Erik Westrup <erik.westrup@gmail.com>  
Erin Masatsugu <erin.masatsugu@gmail.com>  
Ernest Chiang <ernest\_chiang@htc.com>  
Erwin Oegema <blablaechthema@hotmail.com>  
Esko Luontola <esko.luontola@gmail.com>  
Ethan Anderson <eanderson@atlassian.com>

Ethan Burns <eaburns@google.com>  
Ethan Hur <ethan0311@gmail.com>  
Ethan Miller <eamiller@us.ibm.com>  
Ethan Reesor <ethan.reesor@gmail.com>  
Euan Kemp <euank@euank.com>  
Eugene Formanenko <mo4islona@gmail.com>  
Eugene Kalinin <e.v.kalinin@gmail.com>  
Evan Broder <evan@stripe.com>  
Evan Brown <evanbrown@google.com>  
Evan Digby <evandigby@gmail.com>  
Evan Hicks <evan.hicks2@gmail.com>  
Evan Jones <ej@evanjones.ca>  
Evan Klitzke <evan@eklitzke.org>  
Evan Kroske <evankroske@google.com>  
Evan Martin <evan.martin@gmail.com>  
Evan Phoenix <evan@phx.io>  
Evan Shaw <chickencha@gmail.com>  
Evgeniy Kulikov <tuxuls@gmail.com>  
Evgeniy Polyakov <zbr@ioremap.net>  
Ewan Chou <coocood@gmail.com>  
Ewan Valentine <ewan.valentine89@gmail.com>  
Eyal Posener <posener@gmail.com>  
F. Talha Altnel <talhaaltinel@hotmail.com>  
Fabian Wickborn <fabian@wickborn.net>  
Fabian Zaremba <fabian@youreemail.eu>  
Fabio Falzoi <fabio.falzoi84@gmail.com>  
Fabrizio Milo <mistobaan@gmail.com>  
Faiyaz Ahmed <ahmedf@vmware.com>  
Fan Hongjian <fan.howard@gmail.com>  
Fangming Fang <fangming.fang@arm.com>  
Fannie Zhang <fannie.zhang@arm.com>  
Fatih Arslan <fatih@arslan.io>  
Fazal Majid <majid@apsalar.com>  
Fazlul Shahriar <fshahriar@gmail.com>  
Federico Bond <federicobond@gmail.com>  
Federico Guerinoni <guerinoni.federico@gmail.com>  
Federico Simoncelli <fsimonce@redhat.com>  
Fedor Indutny <fedor@indutny.com>  
Fedor Korotkiy <dartslon@gmail.com>  
Felipe Oliveira <felipeweb.programador@gmail.com>  
Felix Bnemann <Felix.Buenemann@gmail.com>  
Felix Cornelius <9767036+fcornelius@users.noreply.github.com>  
Felix Geisendrfer <haimuiba@gmail.com>  
Felix Kollmann <fk@konsorten.de>  
Ferenc Szabo <frncmx@gmail.com>  
Fernandez Ludovic <lfernandez.dev@gmail.com>  
Filip Gruszczyski <gruszczzy@gmail.com>  
Filip Haglund <drathier@users.noreply.github.com>

Filip Stanis <fstanis@google.com>  
Filippo Valsorda <filippo@golang.org> <filippo@cloudflare.com> <hi@filippo.io>  
Firmansyah Adiputra <frm.adiputra@gmail.com>  
Florian Forster <octo@google.com>  
Florian Uekermann <florian@uekermann-online.de> <f1@uekermann-online.de>  
Florian Weimer <fw@deneb.enyo.de>  
Florin Papa <fpapa@google.com>  
Florin Patan <florinpatan@gmail.com>  
Folke Behrens <folke@google.com>  
Ford Hurley <ford.hurley@gmail.com>  
Forest Johnson <forest.n.johnson@gmail.com>  
Francesc Campoy <campoy@golang.org>  
Francesco Guardiani <francescoguard@gmail.com>  
Francesco Renzi <rentziass@gmail.com>  
Francisco Claude <fclaude@recoded.cl>  
Francisco Rojas <francisco.rojas.gallegos@gmail.com>  
Francisco Souza <franciscossouza@gmail.com>  
Frank Chiarulli Jr <frank@frankchiarulli.com>  
Frank Schroeder <frank.schroeder@gmail.com>  
Frank Somers <fsomers@arista.com>  
Frederic Guillot <frederic.guillot@gmail.com>  
Frederick Kelly Mayle III <frederickmayle@gmail.com>  
Frederik Ring <frederik.ring@gmail.com>  
Frederik Zipp <fzipp@gmx.de>  
Frediano Ziglio <freddy77@gmail.com>  
Fredrik Enestad <fredrik.enestad@soundtrackyourbrand.com>  
Fredrik Forsmo <fredrik.forsmo@gmail.com>  
Fredrik Wallgren <fredrik.wallgren@gmail.com>  
Frew Schmidt <github@frew.co>  
Frithjof Schulze <schulze@math.uni-hannover.de> <sfrithjof@gmail.com>  
Frits van Bommel <fvbommel@gmail.com>  
Fujimoto Kyosuke <kyoro.f@gmail.com>  
Fumitoshi Ukai <ukai@google.com>  
G. Hussain Chinoy <ghchinoy@gmail.com>  
Gaal Yahas <gaal@google.com>  
Gabrel Arthr Ptursson <gabriel@system.is>  
Gabriel Aszalos <gabriel.aszalos@gmail.com>  
Gabriel Guzman <gabe.guzman@gmail.com>  
Gabriel Nelle <tehsphinx@web.de>  
Gabriel Nicolas Avellaneda <avellaneda.gabriel@gmail.com>  
Gabriel Rosenhouse <rosenhouse@gmail.com>  
Gabriel Russell <gabriel.russell@gmail.com>  
Gabriel Vasile <gabriel.vasile0793@gmail.com>  
Gareth Paul Jones <gpj@foursquare.com>  
Garret Kelly <gdk@google.com>  
Garrick Evans <garrick@google.com>  
Garry McNulty <garrmcnu@gmail.com>  
Gary Burd <gary@beagledreams.com> <gary.burd@gmail.com>

Gary Elliott <garyelliott@google.com>  
Gaurav Singh <gaurav1086@gmail.com>  
Gaurish Sharma <contact@aurishsharma.com>  
Gautham Thambidorai <gautham.dorai@gmail.com>  
Gauthier Jolly <gauthier.jolly@gmail.com>  
Gawen Arab <gawen.arab@c.zen.ly>  
Geert-Johan Riemer <gjr19912@gmail.com>  
Genevieve Luyt <genevieve.luyt@gmail.com>  
Gengliang Wang <ltnwgl@gmail.com>  
Geoff Berry <gberry.qdt@qualcommdatacenter.com>  
Geoffroy Lorieux <lorieux.g@gmail.com>  
Geon Kim <geon0250@gmail.com>  
Georg Reinke <guelfey@gmail.com>  
George Gkirtsou <ggirtsou@gmail.com>  
George Hartzell <hartzell@alerce.com>  
George Looshch <looshch@loosh.ch>  
George Shammass <george@shamm.as> <georgyo@gmail.com>  
George Tsilias <tsiliasg@gmail.com>  
Gerasimos (Makis) Maropoulos <kataras2006@hotmail.com>  
Gerasimos Dimitriadis <gedimitr@gmail.com>  
Gergely Brautigam <skarlso777@gmail.com>  
Gernot Vormayr <gvormayr@gmail.com>  
Gert Cuykens <gert.cuykens@gmail.com>  
Getulio Snchez <valentin2507@gmail.com>  
Ghazni Nattarshah <ghazni.nattarshah@gmail.com>  
Gianguido Sora` <g.sora4@gmail.com>  
Gideon Jan-Wessel Redelinghuys <gjredelinghuys@gmail.com>  
Giles Lean <giles.lean@pobox.com>  
Giovanni Bajo <rasky@develer.com>  
GitHub User @180909 (70465953) <734461790@qq.com>  
GitHub User @6543 (24977596) <6543@obermui.de>  
GitHub User @aca (50316549) <acadx0@gmail.com>  
GitHub User @ajnipr (1688456) <ajnipr@users.noreply.github.com>  
GitHub User @ajz01 (4744634) <ajzdenek@gmail.com>  
GitHub User @alkesh26 (1019076) <alkesh26@gmail.com>  
GitHub User @andig (184815) <cpuidle@gmx.de>  
GitHub User @andrius4669 (4699695) <andrius4669@gmail.com>  
GitHub User @as (8127015) <as.utf8@gmail.com>  
GitHub User @bakape (7851952) <bakape@gmail.com>  
GitHub User @bgadrian (830001) <aditza8@gmail.com>  
GitHub User @bontequero (2674999) <bontequero@gmail.com>  
GitHub User @cch123 (384546) <buaa.cch@gmail.com>  
GitHub User @chainhelen (7046329) <chainhelen@gmail.com>  
GitHub User @chanxuehong (3416908) <chanxuehong@gmail.com>  
GitHub User @Cluas (10056928) <Cluas@live.cn>  
GitHub User @cncal (23520240) <flycalvin@qq.com>  
GitHub User @DQNEO (188741) <dqneo@gmail.com>  
GitHub User @Dreamacro (8615343) <chuainian@gmail.com>



GitHub User @dupoxy (1143957) <dupoxy@users.noreply.github.com>  
GitHub User @EndlessCheng (7086966) <loli.con@qq.com>  
GitHub User @erifan (31343225) <eric.fang@arm.com>  
GitHub User @esell (9735165) <eujon.sellers@gmail.com>  
GitHub User @fatedier (7346661) <fatedier@gmail.com>  
GitHub User @frennie (6499251) <mail@rhab.de>  
GitHub User @geedchin (11672310) <geedchin@gmail.com>  
GitHub User @GrigoriyMikhalkin (3637857) <grigoriymikhalkin@gmail.com>  
GitHub User @Gusted (25481501) <williamzjl7@hotmail.com>  
GitHub User @hengwu0 (41297446) <41297446+hengwu0@users.noreply.github.com>  
GitHub User @hitzhangjie (3725760) <hit.zhangjie@gmail.com>  
GitHub User @hkhere (33268704) <33268704+hkhere@users.noreply.github.com>  
GitHub User @hopehook (7326168) <hopehook.com@gmail.com>  
GitHub User @hqpk0 (13887251) <whaibin01@hotmail.com>  
GitHub User @Illirgway (5428603) <illirgway@gmail.com>  
GitHub User @itchyny (375258) <itchyny@hatena.ne.jp>  
GitHub User @jinmiaoluo (39730824) <jinmiaoluo@icloud.com>  
GitHub User @jobbrown (6345470) <msshane2008@gmail.com>  
GitHub User @kazysshr (30496953) <kazysshr0301@gmail.com>  
GitHub User @kc1212 (1093806) <kc1212@users.noreply.github.com>  
GitHub User @komisan19 (18901496) <komiyama6219@gmail.com>  
GitHub User @korzhao (64203902) <korzhao95@gmail.com>  
GitHub User @Kropekk (13366453) <kamilkropiewnicki@gmail.com>  
GitHub User @lgbgbl (65756378) <lgbgbl@qq.com>  
GitHub User @lhl2617 (33488131) <l.h.lee2617@gmail.com>  
GitHub User @linguohua (3434367) <lghchinaidea@gmail.com>  
GitHub User @lloydchang (1329685) <lloydchang@gmail.com>  
GitHub User @LotusFenn (13775899) <fenn.lotus@gmail.com>  
GitHub User @luochuanhang (96416201) <chuanhangluo@gmail.com>  
GitHub User @ly303550688 (11519839) <yang.liu636@gmail.com>  
GitHub User @madiganz (18340029) <zacharywmadigan@gmail.com>  
GitHub User @maltalex (10195391) <code@bit48.net>  
GitHub User @markruler (38225900) <csu0414@gmail.com>  
GitHub User @Matts966 (28551465) <Matts966@users.noreply.github.com>  
GitHub User @micnncim (21333876) <micnncim@gmail.com>  
GitHub User @mkishere (224617) <224617+mkishere@users.noreply.github.com>  
GitHub User @nu50218 (40682920) <nu\_ll@icloud.com>  
GitHub User @OlgaVlPetrova (44112727) <OVPPetrova@gmail.com>  
GitHub User @pierwill (19642016) <pierwill@users.noreply.github.com>  
GitHub User @pityonline (438222) <pityonline@gmail.com>  
GitHub User @po3rin (29445112) <abctail30@gmail.com>  
GitHub User @pokutuna (57545) <popopopokutuna@gmail.com>  
GitHub User @povsister (11040951) <pov@mahou-shoujo.moe>  
GitHub User @pytimer (17105586) <lixin20101023@gmail.com>  
GitHub User @qcrao (7698088) <qcrao91@gmail.com>  
GitHub User @ramenjuniti (32011829) <ramenjuniti@gmail.com>  
GitHub User @renthraysk (30576707) <renthraysk@gmail.com>  
GitHub User @roudkerk (52280478) <roudkerk@google.com>

GitHub User @saitarunreddy (21041941) <saitarunreddypalla@gmail.com>  
GitHub User @SataQiu (9354727) <shidaqiu2018@gmail.com>  
GitHub User @seifchen (23326132) <chenxuefeng1207@gmail.com>  
GitHub User @shogo-ma (9860598) <Chorama194@gmail.com>  
GitHub User @sivchari (55221074) <shibuuuu5@gmail.com>  
GitHub User @skanehira (7888591) <sho19921005@gmail.com>  
GitHub User @soolaugust (10558124) <soolaugust@gmail.com>  
GitHub User @surechen (7249331) <surechen17@gmail.com>  
GitHub User @syumai (6882878) <syumai@gmail.com>  
GitHub User @tangxi666 (48145175) <tx1275044634@gmail.com>  
GitHub User @tatsumack (4510569) <tatsu.mack@gmail.com>  
GitHub User @tell-k (26263) <ffk2005@gmail.com>  
GitHub User @tennashi (10219626) <tennashio@gmail.com>  
GitHub User @uhei (2116845) <uhei@users.noreply.github.com>  
GitHub User @uji (49834542) <ujiprogram@gmail.com>  
GitHub User @unbyte (5772358) <i@shangyes.net>  
GitHub User @uropek (39370426) <uropek@gmail.com>  
GitHub User @utkarsh-extc (53217283) <utkarsh.extc@gmail.com>  
GitHub User @witchard (4994659) <witchard@hotmail.co.uk>  
GitHub User @wmdngngng (22067700) <wangmingdong@gmail.com>  
GitHub User @wolf1996 (5901874) <ksgiv37@gmail.com>  
GitHub User @yah01 (12216890) <kagaminehuan@gmail.com>  
GitHub User @yuanhh (1298735) <yuan415030@gmail.com>  
GitHub User @zikaeroh (48577114) <zikaeroh@gmail.com>  
GitHub User @ZZMarquis (7624583) <zhonglingjian3821@163.com>  
Giulio Iotti <dullgiulio@gmail.com>  
Giulio Micheloni <giulio.micheloni@gmail.com>  
Giuseppe Valente <gvalente@arista.com>  
Gleb Stepanov <glebstepanov1992@gmail.com>  
Glenn Brown <glennb@google.com>  
Glenn Lewis <gmlewis@google.com>  
Gordon Klaus <gordon.klaus@gmail.com>  
Gordon Tyler <gordon@doxxx.net>  
Grace Han <hgrace503@gmail.com>  
Graham King <graham4king@gmail.com>  
Graham Miller <graham.miller@gmail.com>  
Grant Griffiths <ggp493@gmail.com>  
Green Lightning <GreenLightning.git@googlemail.com>  
Greg Poirier <greg.istehbest@gmail.com>  
Greg Steuck <gnezdo+github@google.com>  
Greg Thelen <gthelen@google.com>  
Greg Ward <greg@gerg.ca>  
Grgoire Delattre <gregoire.delattre@gmail.com>  
Gregory Man <man.gregory@gmail.com>  
Gregory Petrosyan <gregory.petrosyan@gmail.com>  
Guilherme Caruso <gui.martinscaruso@gmail.com>  
Guilherme Garnier <guilherme.garnier@gmail.com>  
Guilherme Goncalves <guilhermeaugustosg@gmail.com>

Guilherme Rezende <guilhermebr@gmail.com>  
Guilherme Souza <32180229+gqgs@users.noreply.github.com>  
Guillaume Blaquiere <guillaume.blaquiere@gmail.com>  
Guillaume J. Charmes <guillaume@charmes.net>  
Guillaume Sottas <guillaumesottas@gmail.com>  
Gnther Noack <gnoack@google.com>  
Guobiao Mei <meiguobiao@gmail.com>  
Guodong Li <guodongli@google.com>  
Guoliang Wang <iamwgliang@gmail.com>  
Guoqi Chen <chenguoqi@loongson.cn>  
Gustav Paul <gustav.paul@gmail.com>  
Gustav Westling <gustav@westling.xyz>  
Gustavo Franco <gustavorfranco@gmail.com>  
Gustavo Niemeyer <gustavo@niemeyer.net> <n13m3y3r@gmail.com>  
Gwenael Treguier <gwenn.kahz@gmail.com>  
Gyu-Ho Lee <gyuhox@gmail.com>  
H. brahim Gngr <igungor@gmail.com>  
Hajime Hoshi <hajimehoshi@gmail.com>  
Hallgrimur Gunnarsson <halg@google.com>  
HAMANO Tsukasa <hamano@osstech.co.jp>  
Han-Wen Nienhuys <hanwen@google.com>  
Hang Qian <hangqian90@gmail.com>  
Hanjun Kim <hallazzang@gmail.com>  
Hanlin He <hanling.he@gmail.com>  
Hanlin Shi <shihanlin9@gmail.com>  
Hans Nielsen <hans@stackallocated.com>  
Hao Mou <mouhao.mu@gmail.com>  
Haoran Luo <haoran.luo@chaitin.com>  
Haosdent Huang <haosdent@gmail.com>  
Harald Nordgren <haraldnordgren@gmail.com>  
Hari haran <hariharan.uno@gmail.com>  
Hariharan Srinath <srinathh@gmail.com>  
Harley Laue <losinggeneration@gmail.com>  
Harry Moreno <morenoh149@gmail.com>  
Harshavardhana <hrshvardhana@gmail.com>  
Hasan Ozgan <hasan@ozgan.net>  
Hasit Bhatt <hasit.p.bhatt@gmail.com>  
Hauke Lffler <hloeffler@users.noreply.github.com>  
Hvard Haugen <havard.haugen@gmail.com>  
He Liu <liulonnie@gmail.com>  
Hector Chu <hectorchu@gmail.com>  
Hector Martin Cantero <hector@marcansoft.com>  
Hein Khant Zaw <heinkhantzaw1@gmail.com>  
Henning Schmiedehausen <henning@schmiedehausen.org>  
Henrik Edwards <henrik.edwards@gmail.com>  
Henrik Hodne <henrik@hodne.io>  
Henrique Vicente <henriquevicente@gmail.com>  
Henry Adi Sumarto <henry.adisumarto@gmail.com>

Henry Bubert <google@mindeco.de>  
Henry Chang <mr.changyuheng@gmail.com>  
Henry Clifford <h.a.clifford@gmail.com>  
Henry Wong <liushuai.wang@elastic.co>  
Herbert Georg Fischer <herbert.fischer@gmail.com>  
Herbie Ong <herbie@google.com>  
Heschi Kreinick <heschi@google.com>  
Hidetatsu Yaginuma <ygnmhdt@gmail.com>  
Hilko Bengen <bengen@hilluzination.de>  
Himanshu Kishna Srivastava <28himanshu@gmail.com>  
Hiroaki Nakamura <hnakamur@gmail.com>  
Hiromichi Ema <ema.hiro@gmail.com>  
Hironao OTSUBO <motemen@gmail.com>  
Hiroshi Ioka <hirochachacha@gmail.com>  
Hitoshi Mitake <mitake.hitoshi@gmail.com>  
Holden Huang <ttyh061@gmail.com>  
Hong Ruiqi <hongruiqi@gmail.com>  
Hongfei Tan <feilengcui008@gmail.com>  
Horacio Duran <horacio.duran@gmail.com>  
Horst Rutter <hhrutter@gmail.com>  
Hossein Sheikh Attar <hattar@google.com>  
Hossein Zolfi <hossein.zolfi@gmail.com>  
Howard Zhang <howard.zhang@arm.com>  
Hsin Tsao <tsao@google.com>  
Hsin-Ho Yeh <yhh92u@gmail.com>  
Hu Keping <hukeping@huawei.com>  
Huan Du <i@huandu.me>  
Hugues Bruant <hugues.bruant@gmail.com>  
Huy Le <huy.dinh.le.89@gmail.com>  
Hyang-Ah Hana Kim <hakim@google.com> <hyangah@gmail.com>  
Hyoyoung Chang <hyoyoung@gmail.com>  
Ian Cottrell <iancottrell@google.com>  
Ian Davis <nospam@iandavis.com>  
Ian Gudger <ian@loosescre.ws>  
Ian Haken <ihaken@netflix.com>  
Ian Kent <iankent85@gmail.com>  
Ian Lance Taylor <iant@golang.org>  
Ian Leue <ian@appboy.com>  
Ian Mckay <iann0036@gmail.com>  
Ian Tay <iantay@google.com>  
Ian Zapolsky <ianzapolsky@gmail.com>  
Ibrahim AshShohail <ibra.sho@gmail.com>  
Icarus Sparry <golang@icarus.freeuk.com>  
Iccha Sethi <icchasethi@gmail.com>  
Ichinose Shogo <shogo82148@gmail.com>  
Idora Shinatose <idora.shinatose@gmail.com>  
Ignacio Hagopian <jsign.uy@gmail.com>  
Igor Bernstein <igorbernstein@google.com>

Igor Bolotnikov <igor.v.bolotnikov@gmail.com>  
Igor Dolzhikov <bluesriverz@gmail.com>  
Igor Vashyst <ivashyst@gmail.com>  
Igor Zhilianin <igor.zhilianin@gmail.com>  
Ikko Ashimine <eltoclear@gmail.com>  
Ilya Yalovyy <yalovoy@gmail.com>  
Ilya Chukov <56119080+Elias506@users.noreply.github.com>  
Ilya Mateyko <me@astrophena.name>  
Ilya Sinelnikov <sidhmangh@gmail.com>  
Ilya Tocar <ilya.tocar@intel.com>  
INADA Naoki <songofacandy@gmail.com>  
Inanc Gumus <m@inanc.io>  
Ingo Gottwald <in.gottwald@gmail.com>  
Ingo Krabbe <ikrabbe.ask@gmail.com>  
Ingo Oeser <nightlyone@googlemail.com> <nightlyone@gmail.com>  
Ioannis Georgoulas <geototti21@hotmail.com>  
Irbe Krumina <irbekrm@gmail.com>  
Irfan Sharif <irfanmahmoudsharif@gmail.com>  
Irieda Noboru <irieda@gmail.com>  
Isaac Ardis <isaac.ardis@gmail.com>  
Isaac Wagner <ibw@isaacwagner.me>  
Isfan Azhabil <isfanazhabil@gmail.com>  
Iskander Sharipov <iskander.sharipov@intel.com> <quasilyte@gmail.com>  
Issac Trotts <issactrotts@google.com>  
Ivan Babrou <ivan@cloudflare.com>  
Ivan Bertona <ivan.bertona@gmail.com>  
Ivan Krasin <krasin@golang.org>  
Ivan Kutuzov <arbrix@gmail.com>  
Ivan Markin <sw@nogoegst.net>  
Ivan Moscoso <moscoso@gmail.com>  
Ivan Osadchiy <ivan.osadchii@gmail.com>  
Ivan Sharavuev <shpiwan@gmail.com>  
Ivan Trubach <mr.trubach@icloud.com>  
Ivan Ukhov <ivan.ukhov@gmail.com>  
Ivy Evans <ivy@ivyevans.net>  
Jaana Burcu Dogan <jbd@google.com> <jbd@golang.org> <burcujdogan@gmail.com>  
Jaap Aarts <jaap.aarts1@gmail.com>  
Jack Britton <jackxbritton@gmail.com>  
Jack Lindamood <jlindamo@justin.tv>  
Jack You <jamesyou@google.com>  
Jacob Baskin <jbaskin@google.com>  
Jacob Blain Christen <dweomer5@gmail.com>  
Jacob H. Haven <jacob@cloudflare.com>  
Jacob Hoffman-Andrews <github@hoffman-andrews.com>  
Jacob Walker <jacobwalker0814@gmail.com>  
Jaden Teng <long.asyn@gmail.com>  
Jae Kwon <jae@tendermint.com>  
Jake B <doogie1012@gmail.com>

Jake Ciolek <jakub@ciolek.dev>  
Jakob Borg <jakob@nym.se>  
Jakob Weisblat <jakobw@mit.edu>  
Jakub ajka <jcajka@redhat.com>  
Jakub Kaczmarzyk <jakubk@mit.edu>  
Jakub Ryszard Czarnowicz <j.czarnowicz@gmail.com>  
Jakub Warczarek <jakub.warczarek@gmail.com>  
Jamal Carvalho <jamal.a.carvalho@gmail.com>  
James Aguilar <jaguilar@google.com>  
James Bardin <j.bardin@gmail.com>  
James Chacon <jchacon@google.com>  
James Clarke <jrtc27@jrtc27.com>  
James Cowgill <James.Cowgill@imgtec.com>  
James Craig Burley <james-github@burleyarch.com>  
James David Chalfant <james.chalfant@gmail.com>  
James Eady <jmeady@google.com>  
James Fennell <jpfennell@google.com>  
James Fysh <james.fysh@gmail.com>  
James Gray <james@james4k.com>  
James Harris <mailjamesharris@gmail.com>  
James Hartig <fastest963@gmail.com>  
James Kasten <jdkasten@google.com>  
James Lawrence <jljatone@gmail.com>  
James Meneghello <rawrz0r@gmail.com>  
James Myers <jfmyers9@gmail.com>  
James Naftel <james.naftel@gmail.com>  
James Neve <jamesoneve@gmail.com>  
James Nugent <james@jen20.com>  
James P. Cooper <jamespcooper@gmail.com>  
James Robinson <jamesr@google.com> <jamesr.gatech@gmail.com>  
James Schofield <james@shoeboxapp.com>  
James Smith <jrs1995@icloud.com>  
James Sweet <james.sweet88@googlemail.com>  
James Toy <nil@opensesame.st>  
James Treanor <jtreanor3@gmail.com>  
James Tucker <raggi@google.com>  
James Whitehead <jnwhiteh@gmail.com>  
Jamie Beverly <jamie.r.beverly@gmail.com>  
Jamie Gennis <jgennis@google.com> <jgennis@gmail.com>  
Jamie Kerr <jkerr113@googlemail.com>  
Jamie Liu <jamieliu@google.com>  
Jamie Stackhouse <contin673@gmail.com>  
Jamie Turner <jamwt@dropbox.com>  
Jamie Wilkinson <jaq@spacepants.org>  
Jamil Djadala <djadala@gmail.com>  
Jan Berktold <jan@berktold.co>  
Jan H. Hosang <jan.hosang@gmail.com>  
Jan Kratochvil <jan.kratochvil@redhat.com>

Jan Lehnardt <jan@apache.org>  
Jan Mercl <0xjnml@gmail.com> <befelemepeseveze@gmail.com>  
Jan Newmarch <jan.newmarch@gmail.com>  
Jan Pilzer <jan.pilzer@gmx.de>  
Jan Steinke <jan.steinke@gmail.com>  
Jan Ziak <0xe2.0x9a.0x9b@gmail.com>  
Jani Monoses <jani.monoses@ubuntu.com> <jani.monoses@gmail.com>  
Jannis Andrija Schnitzer <jannis@schnitzer.im>  
Jared Allard <jaredallard@users.noreply.github.com>  
Jared Culp <jculp14@gmail.com>  
Jaroslav Poepko <jp@webmaster.ms>  
Jason A. Donenfeld <Jason@zx2c4.com>  
Jason Baker <jason-baker@users.noreply.github.com>  
Jason Barnett <jason.w.barnett@gmail.com>  
Jason Buberel <jbuberel@google.com>  
Jason Chu <jasonchujc@gmail.com>  
Jason Del Ponte <delpontej@gmail.com>  
Jason Hall <jasonhall@google.com>  
Jason Keene <jasonkeene@gmail.com>  
Jason LeBrun <jblebrun@gmail.com>  
Jason Smale <jsmale@zendesk.com>  
Jason Travis <infomaniac7@gmail.com>  
Jason Wangsadinata <jwangsadinata@gmail.com>  
Javier Kohen <jkohen@google.com>  
Javier Revillas <jrevillas@massivedynamic.io>  
Javier Segura <javism@gmail.com>  
Jay Chen <chenjie@chenjie.info>  
Jay Conrod <jayconrod@google.com>  
Jay Lee <BusyJayLee@gmail.com>  
Jay Taylor <outtatime@gmail.com>  
Jay Weisskopf <jay@jayschwa.net>  
Jean de Klerk <deklerk@google.com>  
Jean-Andr Santoni <jean.andre.santoni@gmail.com>  
Jean-Franois Bustarret <jf@bustarret.com>  
Jean-Francois Cantin <jfcantin@gmail.com>  
Jean-Hadrien Chabran <jh@chabran.fr>  
Jean-Marc Eurin <jmeurin@google.com>  
Jean-Nicolas Moal <jn.moal@gmail.com>  
Jed Denlea <jed@fastly.com>  
Jdrzej Szczepaniak <jbszczepaniak@gmail.com>  
Jeet Parekh <jeetparekh96@gmail.com>  
Jeevanandam M <jeeva@myjeeva.com>  
Jeff (Zhefu) Jiang <jeffjiang@google.com>  
Jeff Craig <jeffcraig@google.com>  
Jeff Dupont <jeff.dupont@gmail.com>  
Jeff Hodges <jeff@somethingsimilar.com>  
Jeff Johnson <jrjohnson@google.com>  
Jeff R. Allen <jra@nella.org> <jeff.allen@gmail.com>

Jeff Sickel <jas@corpus-callosum.com>  
Jeff Wendling <jeff@spacemonkey.com>  
Jeff Wentworth <j.wentworth@gmail.com>  
Jeff Widman <jeff@jeffwidman.com>  
Jeffrey H <jeffreyh192@gmail.com>  
Jelte Fennema <github-tech@jeltef.nl>  
Jens Frederich <jfrederich@gmail.com>  
Jeremiah Harmsen <jeremiah@google.com>  
Jeremy Banks <\_@jeremy.ca>  
Jeremy Canady <jcanady@gmail.com>  
Jeremy Faller <jeremy@golang.org>  
Jeremy Jackins <jeremyjackins@gmail.com>  
Jeremy Jay <jeremy@pbnjay.com>  
Jeremy Schlatter <jeremy.schlatter@gmail.com>  
Jero Bado <tokidokitalkyou@gmail.com>  
Jeroen Bobbeldijk <jerbob92@gmail.com>  
Jeroen Simonetti <jeroen@simonetti.nl>  
Jrme Doucet <jerdct@gmail.com>  
Jerrin Shaji George <jerrinsg@gmail.com>  
Jess Frazelle <me@jessfraz.com>  
Jesse Szwedko <jesse.szwedko@gmail.com>  
Jess Espino <jespinog@gmail.com>  
Jia Zhan <jzhan@uber.com>  
Jiacai Liu <jiacai2050@gmail.com>  
Jiahao Lu <lujjjh@gmail.com>  
Jiahua Wang <wjh180909@gmail.com>  
Jianing Yu <jnyu@google.com>  
Jianqiao Li <jianqiaoli@google.com>  
Jiayu Yi <yijiayu@gmail.com>  
Jie Ma <jienius@outlook.com>  
Jihyun Yu <yjh0502@gmail.com>  
Jim Cote <jfcote87@gmail.com>  
Jim Kingdon <jim@bolt.me>  
Jim McGrath <jimmc2@gmail.com>  
Jim Minter <jminter@redhat.com>  
Jimmy Frasche <soapboxcicero@gmail.com>  
Jimmy Zelinskie <jimmyzelinskie@gmail.com>  
Jin-wook Jeong <jeweljar@hanmail.net>  
Jingcheng Zhang <diogin@gmail.com>  
Jingguo Yao <yaojingguo@gmail.com>  
Jingnan Si <jingnan.si@gmail.com>  
Jinkun Zhang <franksnolf@gmail.com>  
Jinwen Wo <wojinwen@huawei.com>  
Jiong Du <londevil@gmail.com>  
Jirka Dank <dnk@mail.muni.cz>  
Jiulong Wang <jiulongw@gmail.com>  
Joakim Sernbrant <serbaut@gmail.com>  
Jochen Weber <jochen.weber80@gmail.com>



Joe Bowbeer <joe.bowbeer@gmail.com>  
Joe Cortopassi <joe@joecortopassi.com>  
Joe Farrell <joe2farrell@gmail.com>  
Joe Harrison <joehazzers@gmail.com>  
Joe Henke <joed.henke@gmail.com>  
Joe Kyo <xunianzu@gmail.com>  
Joe Poirier <jdpoirier@gmail.com>  
Joe Richey <joerichey@google.com>  
Joe Shaw <joe@joeshaw.org>  
Joe Sylve <joe.sylve@gmail.com>  
Joe Tsai <joetsai@digital-static.net>  
Joel Courtney <euphemize@gmail.com>  
Joel Ferrier <joelferrier@google.com>  
Joel Sing <joel@sing.id.au> <jsing@google.com>  
Jol Stemmer <jstemmer@google.com>  
Joel Stemmer <stemmertech@gmail.com>  
Joey Geiger <jgeiger@users.noreply.github.com>  
Johan Brandhorst <johan.brandhorst@gmail.com>  
Johan Euphrosine <proppy@google.com>  
Johan Jansson <johan.jansson@iki.fi>  
Johan Knutzen <johan@senri.se>  
Johan Sageryd <j@1616.se>  
Johannes Altmanninger <aclopte@gmail.com>  
Johannes Huning <johannes.huning@gmail.com>  
John Asmuth <jasmuth@gmail.com>  
John Bampton <jbampton@gmail.com>  
John Beisley <huin@google.com>  
John C Barstow <jbowtie@amathaine.com>  
John DeNero <denero@google.com>  
John Dethridge <jcd@golang.org>  
John Gibb <johngibb@gmail.com>  
John Gilik <john@jgilik.com>  
John Graham-Cumming <jgc@jgc.org> <jgrahamc@gmail.com>  
John Howard Palevich <jack.palevich@gmail.com>  
John Jago <johnjago@protonmail.com>  
John Jeffery <jjeffery@sp.com.au>  
John Jenkins <twodopeshaggy@gmail.com>  
John Kelly <jkelly@squarespace.com>  
John Leidegren <john.leidegren@gmail.com>  
John McCabe <john@johnmccabe.net>  
John Moore <johnkenneth.moore@gmail.com>  
John Newlin <jnewlin@google.com>  
John Olheiser <john.olheiser@gmail.com>  
John Papandriopoulos <jpap.code@gmail.com>  
John Potocny <johnp@vividcortex.com>  
John R. Lenton <jlenton@gmail.com>  
John Schnake <schnake.john@gmail.com>  
John Shahid <jvshahid@gmail.com>

John Tuley <john@tuley.org>  
John Weldon <johnweldon4@gmail.com>  
Johnny Luo <johnnyluo1980@gmail.com>  
Jon Chen <jchen@justin.tv>  
Jon Johnson <jonjohnson@google.com>  
Jonas Bernoulli <jonas@bernoul.li>  
Jonathan Albrecht <jonathan.albrecht@ibm.com>  
Jonathan Allie <jonallie@google.com>  
Jonathan Amsterdam <jba@google.com>  
Jonathan Boulle <jonathanboulle@gmail.com>  
Jonathan Chen <dijonkitchen@users.noreply.github.com>  
Jonathan Feinberg <feinberg@google.com>  
Jonathan Gold <jgold.bg@gmail.com>  
Jonathan Hseu <jhseu@google.com>  
Jonathan Mark <jhmark@xenops.com> <jhmark000@gmail.com>  
Jonathan Nieder <jrn@google.com>  
Jonathan Pentecost <pentecostjonathan@gmail.com>  
Jonathan Pittman <jmpittman@google.com> <jonathan.mark.pittman@gmail.com>  
Jonathan Rudenberg <jonathan@titanous.com>  
Jonathan Stacks <jonstacks13@gmail.com>  
Jonathan Swinney <jswinney@amazon.com>  
Jonathan Wills <runningwild@gmail.com>  
Jonathon Lacher <jonathon.lacher@gmail.com>  
Jongmin Kim <atomaths@gmail.com>  
Joonas Kuorilehto <joneskoo@derbian.fi>  
Joop Kiefte <ikojba@gmail.com> <joop@kiefte.net>  
Jordan Christiansen <xordspar0@gmail.com>  
Jordan Krage <jmank88@gmail.com>  
Jordan Lewis <jordanthelewis@gmail.com>  
Jordan Liggitt <liggitt@google.com>  
Jordan Rhee <jordanrh@microsoft.com>  
Jordan Rupprecht <rupprecht@google.com>  
Jordi Martin <jordimartin@gmail.com>  
Jorge Araya <jorgejavieran@yahoo.com.mx>  
Jorge L. Fatta <jorge.fatta@auth0.com>  
Jorge Troncoso <jatron@google.com>  
Jos Visser <josv@google.com>  
Josa Gesell <josa@gesell.me>  
Jose Luis Vzquez Gonzlez <josvazg@gmail.com>  
Joseph Bonneau <jcb@google.com>  
Joseph Holsten <joseph@josephholsten.com>  
Joseph Morag <sefim96@gmail.com>  
Josh Baum <joshbaum@google.com>  
Josh Bleecher Snyder <josharian@gmail.com>  
Josh Chorlton <jchorlton@gmail.com>  
Josh Deprez <josh.deprez@gmail.com>  
Josh Goebel <dreamer3@gmail.com>  
Josh Hoak <jhoak@google.com>

Josh Holland <jrh@joshh.co.uk>  
Josh Rickmar <jrick@companyzero.com>  
Josh Roppo <joshroppo@gmail.com>  
Josh Varga <josh.varga@gmail.com>  
Joshua Bezaleel Abednego <joshua.bezaleel@gmail.com>  
Joshua Boelter <joshua.boelter@intel.com>  
Joshua Chase <jcjosuachase@gmail.com>  
Joshua Crowgey <jcrowgey@uw.edu>  
Joshua Harshman <joshgreyhat@gmail.com>  
Joshua M. Clulow <josh.clulow@joyent.com>  
Joshua Rubin <joshua@rubixconsulting.com>  
Josselin Costanzi <josselin@costanzi.fr>  
Jostein Stuhauug <js@solidsystem.no>  
JP Sugarbroad <jpsugar@google.com>  
JT Olds <jtolds@xnet5.com>  
JT Olio <hello@jtolio.com>  
Juan Carlos <juanjcsr@gmail.com>  
Juan Pablo Civile <elementohb@gmail.com>  
Jude Pereira <judebpereira@gmail.com>  
Jukka-Pekka Kekkonen <karatepekka@gmail.com>  
Julia Hansbrough <flowerhack@google.com>  
Julian Kornberger <jk+github@digineo.de>  
Julian Pastarmov <pastarmovj@google.com>  
Julian Phillips <julian@quantumfyre.co.uk>  
Julian Tibble <julian.tibble@gmail.com>  
Julie Qiu <julie@golang.org>  
Julien Kauffmann <julien.kauffmann@freelan.org>  
Julien Salleyron <julien.salleyron@gmail.com>  
Julien Schmidt <google@julienschmidt.com>  
Julien Tant <julien@craftyx.fr>  
Julio Montes <julio.montes@intel.com>  
Jun Zhang <jim.zoumo@gmail.com>  
Junchen Li <junchen.li@arm.com>  
Junda Liu <junda@celer.network>  
Jungho Ahn <jhahn@google.com>  
Junya Hayashi <ledmonster@gmail.com>  
Juraj Sukop <sukop@users.noreply.github.com>  
Jure Ham <jure.ham@zemanta.com>  
Justin Gracenin <jgracenin@gmail.com>  
Justin Li <git@justinli.net>  
Justin Nu <nuss.justin@gmail.com>  
Justyn Temme <justyntemme@gmail.com>  
Kai Backman <kaib@golang.org>  
Kai Dong <dokia2357@gmail.com>  
Kai Lke <kai@kinvolk.io>  
Kai Trukenmller <ktye78@gmail.com>  
Kale Blankenship <kale@lemnisis.com>  
Kaleb Elwert <kelwert@atlassian.com>

Kalman Bekesi <kalmanb@google.com>  
Kamal Aboul-Hosn <aboulhosn@google.com>  
Kamil Chmielewski <kamil.chm@gmail.com>  
Kamil Kisiel <kamil@kamilkisiel.net> <kamil.kisiel@gmail.com>  
Kamil Rytarowski <krytarowski@users.noreply.github.com>  
Kang Hu <hukangustc@gmail.com>  
Kanta Ebihara <kantaebihara@gmail.com>  
Karan Dhiman <karandhi@ca.ibm.com>  
Karel Pazdera <pazderak@gmail.com>  
Karoly Negyesi <chx1975@gmail.com>  
Karsten Khler <karsten.koehler95@gmail.com>  
Karthik Nayak <karthik.188@gmail.com>  
Kashav Madan <kshvmdn@gmail.com>  
Kate Manson <kate.manson@izettle.com>  
Katharine Berry <ktbry@google.com>  
Katie Hockman <katie@golang.org>  
Kato Kazuyoshi <kato.kazuyoshi@gmail.com>  
Katrina Owen <katrina.owen@gmail.com>  
Kaviraj Kanagaraj <kavirajkanagaraj@gmail.com>  
Kay Zhu <kayzhu@google.com>  
Kazuhiro Sera <seratch@gmail.com>  
KB Sriram <kbsriram@google.com>  
Keegan Carruthers-Smith <keegan.csmith@gmail.com>  
Kei Son <hey.calmdown@gmail.com>  
Keiichi Hirobe <challenge.akane@gmail.com>  
Keiji Yoshida <keijiyoshida.mail@gmail.com>  
Keisuke Kishimoto <keisuke.kishimoto@gmail.com>  
Keith Ball <inflatablewoman@gmail.com>  
Keith Randall <khr@golang.org>  
Keith Rarick <kr@xph.us>  
Kelly Heller <pestophagous@gmail.com>  
Kelsey Hightower <kelsey.hightower@gmail.com>  
Kelvin Foo Chuan Lyi <vmirage@gmail.com>  
Kemal Elmizan <kemalelmizan@gmail.com>  
Ken Friedenbach <kenliz@cruzio.com>  
Ken Rockot <ken@oz.gs> <ken.rockot@gmail.com>  
Ken Sedgwick <ken@bonsai.com>  
Ken Thompson <ken@golang.org>  
Kenichi Tsunokawa <kenichi.tsunokawa@gmail.com>  
Kenji Kaneda <kenji.kaneda@gmail.com>  
Kenji Yano <kenji.yano@gmail.com>  
Kenneth Shaw <kenshaw@gmail.com>  
Kenny Grant <kennygrant@gmail.com>  
Kensei Nakada <handbomusic@gmail.com>  
Kenta Mori <zoncoen@gmail.com>  
Kerollos Magdy <kerolloz@yahoo.com>  
Ketan Parmar <ketanbparmar@gmail.com>  
Kevan Swanberg <kevswanberg@gmail.com>

Kevin Albertson <kevin.albertson@mongodb.com>  
Kevin Ballard <kevin@sb.org>  
Kevin Burke <kev@inburke.com>  
Kvin Dunglas <dunglas@gmail.com>  
Kevin Gillette <extemporalgenome@gmail.com>  
Kevin Herro <kevin109104@gmail.com>  
Kevin Kirsche <kev.kirsche@gmail.com>  
Kevin Klues <klueska@gmail.com> <klueska@google.com>  
Kevin Malachowski <chowski@google.com>  
Kevin Parsons <kevpar@microsoft.com>  
Kevin Ruffin <kruffin@gmail.com>  
Kevin Vu <kevin.m.vu@gmail.com>  
Kevin Zita <bleedgreenandgold@gmail.com>  
Keyan Pishdadian <kpishdadian@gmail.com>  
Keyuan Li <keyuanli123@gmail.com>  
Kezhu Wang <kezhuw@gmail.com>  
Khosrow Moossavi <khos2ow@gmail.com>  
Kieran Colford <kieran@kcolford.com>  
Kieran Gorman <kieran.j.gorman@gmail.com>  
Kim Shrier <kshrier@racktopsystems.com>  
Kim Yongbin <kybinz@gmail.com>  
Kir Kolyshkin <kolyshkin@gmail.com>  
Kirill Korotaev <kirillx@gmail.com>  
Kirill Motkov <Motkov.Kirill@gmail.com>  
Kirill Smelkov <kirr@nexedi.com>  
Kirill Tatchihin <kirabsuir@gmail.com>  
Kirk Han <kirk91.han@gmail.com>  
Kirklin McDonald <kirklin.mcdonald@gmail.com>  
KJ Tsanaktsidis <ktsanaktsidis@zendesk.com>  
Klaus Post <klauspost@gmail.com>  
Kodie Goodwin <kodiegoodwin@gmail.com>  
Koichi Shiraishi <zchee.io@gmail.com>  
Koki Ide <niconegoto@yahoo.co.jp>  
Koki Tomoshige <tomocy.dev@gmail.com>  
Komu Wairagu <komuw05@gmail.com>  
Konstantin <konstantin8105@gmail.com>  
Konstantin Shaposhnikov <k.shaposhnikov@gmail.com>  
Koya IWAMURA <kiwamura0314@gmail.com>  
Kris Kwiatkowski <kris@cloudflare.com>  
Kris Nova <kris@nivenly.com>  
Kris Rousey <krousey@google.com>  
Krishna Birla <krishnabirla16@gmail.com>  
Kristopher Watts <traetox@gmail.com>  
Krzysztof Dbrowski <krzysdabro@live.com>  
Kshitij Saraogi <kshitij@saraogi@gmail.com>  
Kun Li <likunarmstrong@gmail.com>  
Kunpei Sakai <namusyaka@gmail.com>  
Kuntal Majumder <hellozee@disroot.org>

Kush Patel <kush.patel@hootsuite.com>  
Kyle Consalus <consalus@gmail.com>  
Kyle Isom <kyle@gokyle.net>  
Kyle Jones <kyle@kyledj.com>  
Kyle Lemons <kyle@kylelemons.net> <kevlar@google.com>  
Kyle Nusbaum <kyle@datadog.com>  
Kyle Shannon <kyle@pobox.com>  
Kyle Spiers <eiais@google.com>  
Kyle Wood <kyle@kylewood.cc>  
Kyohei Kadota <lufia@lufia.org>  
Kyrylo Silin <silin@kyrylo.org>  
L Campbell <unpantsu@gmail.com>  
Lai Jiangshan <eag0628@gmail.com>  
Lajos Papp <lalyos@yahoo.com>  
Lakshay Garg <lakshay.garg.1996@gmail.com>  
Lann Martin <lanm@google.com>  
Lanre Adelowo <yo@lanre.wtf>  
Lapo Luchini <lapo@lapo.it>  
Larry Clapp <larry@theclapp.org>  
Larry Hosken <lahosken@golang.org>  
Lars Jeppesen <jeppesen.lars@gmail.com>  
Lars Lehtonen <lars.lehtonen@gmail.com>  
Lars Wiegman <lars@namsral.com>  
Larz Conwell <larzconwell@gmail.com>  
Laurent Voisin <lpvoisin@gmail.com>  
Laurie Clark-Michalek <laurie@qubit.com>  
LE Manh Cuong <cuong.manhle.vn@gmail.com>  
Lee Hinman <hinman@gmail.com>  
Lee Packham <lpackham@gmail.com>  
Lehner Florian <dev@der-flo.net>  
Leigh McCulloch <leighmcc@gmail.com>  
Leo Antunes <leo@costela.net>  
Leo Rudberg <ljr@google.com>  
Leon Klingele <git@leonklingele.de>  
Leonard Wang <>wangdeyu0907@gmail.com> <wangdeyu@golangcn.org>  
Leonardo Comelli <leonardo.comelli@gmail.com>  
Leonel Quinteros <leonel.quinteros@gmail.com>  
Lev Shamardin <shamardin@gmail.com>  
Lewin Bormann <lewin.bormann@gmail.com>  
Lewis Waddicor <nemesismk2@gmail.com>  
Li-Yu Yu <aaronyu@google.com>  
Liam Haworth <liam@haworth.id.au>  
Lily Chung <lilithkchung@gmail.com>  
Lingchao Xin <douglarek@gmail.com>  
Lion Yang <lion@aosc.xyz>  
Liz Rice <liz@lizrice.com>  
Lize Cai <lizzcai1@gmail.com>  
Lloyd Dewolf <foolswisdom@gmail.com>

Llus Batlle i Rossell <viric@viric.name>  
Lorenz Bauer <lmb@cloudflare.com>  
Lorenz Brun <lorenz@brun.one>  
Lorenz Nickel <mail@lorenznickel.de>  
Lorenzo Masini <rugginoso@develer.com>  
Lorenzo Stoakes <lstoakes@gmail.com>  
Louis Kruger <louisk@google.com>  
Luan Santos <cfcluan@gmail.com>  
Lubomir I. Ivanov <neolit123@gmail.com>  
Luca Bruno <luca.bruno@coreos.com>  
Luca Greco <luca.greco@alcacoop.it>  
Luca Spiller <luca@stackednotion.com>  
Lucas Bremgartner <lucas.bremgartner@gmail.com>  
Lucas Clemente <lclemente@google.com>  
Lucien Stuker <lucien.stuker@gmail.com>  
Lucio De Re <lucio.dere@gmail.com>  
Ludi Rehak <ludi317@gmail.com>  
Luigi Riefolo <luigi.riefolo@gmail.com>  
Luit van Drongelen <luitvd@gmail.com>  
Luka Zakrajek <tr00.g33k@gmail.com>  
Luka Zitnik <luka.zitnik@gmail.com>  
Lukasz Milewski <lmmilewski@gmail.com>  
Luke Champine <luke.champine@gmail.com>  
Luke Curley <qpingu@gmail.com>  
Luke Granger-Brown <git@lukegb.com>  
Luke Shumaker <lukeshu@datawire.io>  
Luke Young <bored-engineer@users.noreply.github.com>  
Luna Duclos <luna.duclos@palmstonegames.com>  
Luuk van Dijk <lvd@golang.org> <lvd@google.com>  
Lyle Franklin <lylejfranklin@gmail.com>  
Lynn Boger <laboger@linux.vnet.ibm.com>  
Ma Peiqi <mapeiqi2017@gmail.com>  
Maarten Bezemer <maarten.bezemer@gmail.com>  
Maciej Dbski <maciejd@google.com>  
Madhu Rajanna <madhupr007@gmail.com>  
Magnus Hiie <magnus.hiie@gmail.com>  
Mahdi Hosseini Moghaddam <seyed.mahdi.hosseini.moghaddam@ibm.com>  
Maia Lee <maia.lee@leftfieldlabs.com>  
Maicon Costa <maiconscosta@gmail.com>  
Mak Kolybabi <mak@kolybabi.com>  
Maksym Trykur <maksym.trykur@gmail.com>  
Mal Curtis <mal@mal.co.nz>  
Manfred Touron <m@42.am>  
Manigandan Dharmalingam <manigandan.jeff@gmail.com>  
Manish Goregaokar <manishsmail@gmail.com>  
Manlio Perillo <manlio.perillo@gmail.com>  
Manoj Dayaram <platform-dev@moovweb.com> <manoj.dayaram@moovweb.com>  
Mansour Rahimi <rahimi.mnr@gmail.com>

Manu Garg <manugarg@google.com>  
Manu S Ajith <neo@codingarena.in>  
Manuel Mendez <mmendez534@gmail.com>  
Marat Khabibullin <marat.khabibullin@jetbrains.com>  
Marc Sanmiquel <marcsanmiquel@gmail.com>  
Marc Weistroff <marc@weistroff.net>  
Marc-Antoine Ruel <maruel@chromium.org>  
Marcel Edmund Franke <marcel.edmund.franke@gmail.com>  
Marcel van Lohuizen <mpvl@golang.org>  
Marcelo Cantos <marcelo.cantos@gmail.com>  
Marcelo E. Magallon <marcelo.magallon@gmail.com>  
Marco Gazerro <gazerro@open2b.com>  
Marco Hennings <marco.hennings@freiheit.com>  
Marcus Weiner <marcus.weiner@gmail.com>  
Marcus Willock <crazcalm@gmail.com>  
Marga Manterola <marga@google.com>  
Mariano Cano <mariano@smallstep.com>  
Marin Bai <marin.basic02@gmail.com>  
Mario Arranz <marioarranzr@gmail.com>  
Marius A. Eriksen <marius@grailbio.com>  
Marius Nuennerich <mnu@google.com>  
Mark Adams <mark@markadams.me>  
Mark Bucciarelli <mkbucc@gmail.com>  
Mark Dain <mark@markdain.net>  
Mark Glines <mark@glines.org>  
Mark Hansen <markhansen@google.com>  
Mark Harrison <marhar@google.com>  
Mark Jeffery <dandare100@gmail.com>  
Mark Percival <m@mdp.im>  
Mark Pulford <mark@kyne.com.au>  
Mark Rushakoff <mark.rushakoff@gmail.com>  
Mark Ryan <mark.d.ryan@intel.com>  
Mark Severson <miquella@gmail.com>  
Mark Theunissen <mark.theunissen@gmail.com>  
Mark Villacampa <m@markvillacampa.com>  
Mark Wolfe <mark@wolfe.id.au>  
Mark Zavislak <zavislak@google.com>  
Marko Juhani Silokunnas <marko.silokunnas@gmail.com>  
Marko Kevac <marko@kevac.org>  
Marko Kungla <marko.kungla@gmail.com>  
Marko Mikulicic <mkm@google.com>  
Marko Mudrinic <mudrinic.mare@gmail.com>  
Marko Tiikkaja <marko@joh.to>  
Markus Duft <markus.duft@salomon.at>  
Markus Sonderegger <marraison@gmail.com>  
Markus Zimmermann <zimmski@gmail.com>  
Marten Seemann <martenseemann@gmail.com>  
Martin Asquino <martin.asquino@gmail.com>



Martin Bertschler <mbertschler@gmail.com>  
Martin Garton <garton@gmail.com>  
Martin Habbecke <marhab@google.com>  
Martin Hamrle <martin.hamrle@gmail.com>  
Martin Hoefling <martin.hoefling@gmx.de>  
Martin Kreichgauer <martinkr@google.com>  
Martin Kunc <martinkunc@users.noreply.github.com>  
Martin Lindhe <martin.j.lindhe@gmail.com>  
Martin Mhrmann <martin@golang.org> <moehrmann@google.com> <martisch@uos.de>  
Martin Neubauer <m.ne@gmx.net>  
Martin Olsen <github.com@martinolsen.net>  
Martin Olsson <martin@minimum.se>  
Martin Probst <martin@probst.io>  
Martin Sucha <anty.sk+git@gmail.com>  
Martin Tournoij <martin@arp242.net>  
Martins Sipenko <martins.sipenko@gmail.com>  
Martynas Budrinas <mabu@google.com>  
Marvin Stenger <marvin.stenger94@gmail.com>  
Marwan Sulaiman <marwan.sulaiman@work.co>  
Maryan Hratson <gmarik@gmail.com>  
Masahiro Furudate <masahiro.furudate@gmail.com>  
Masahiro Wakame <vvakame@gmail.com>  
Masaki Yoshida <yoshida.masaki@gmail.com>  
Masaya Watanabe <sfbgwm30@gmail.com>  
Mat Byczkowski <mbyczkowski@gmail.com>  
Mat Ryer <thatmatryer@gmail.com>  
Mt Gulys <mgulyas86@gmail.com>  
Matej Bao <matejbaco@gmail.com>  
Mateus Amin <mateus.amin@gmail.com>  
Mateusz Czapliski <czapkofan@gmail.com>  
Matheus Alcantara <matheusssilv97@gmail.com>  
Mathias Beke <git@denbeke.be>  
Mathias Hall-Andersen <mathias@hall-andersen.dk>  
Mathias Leppich <mleppich@muhqu.de>  
Mathieu Lonjaret <mathieu.lonjaret@gmail.com>  
Mats Lidell <mats.lidell@cag.se> <mats.lidell@gmail.com>  
Matt Aimonetti <mattaimonetti@gmail.com>  
Matt Blair <me@matthewblair.net>  
Matt Bostock <matt@mattbostock.com>  
Matt Brown <mbrown@google.com>  
Matt Dee <mdee@hioscar.com>  
Matt Drollette <matt@drollette.com>  
Matt Harden <matt.harden@gmail.com>  
Matt Jibson <matt.jibson@gmail.com>  
Matt Joiner <anacrolix@gmail.com>  
Matt Jones <mrjones@google.com>  
Matt Juran <thepciet@gmail.com>  
Matt Layher <mdlayher@gmail.com>

Matt Masurka <masurka@google.com>  
Matt Pearring <broskies@google.com>  
Matt Reiferson <mreiferson@gmail.com>  
Matt Robenolt <matt@ydekproductions.com>  
Matt Strong <mstrong1341@gmail.com>  
Matt T. Proud <matt.proud@gmail.com>  
Matt Williams <gh@mattyw.net> <mattyjwilliams@gmail.com>  
Matthew Brennan <matty.brennan@gmail.com>  
Matthew Broberg <matthewbbroberg@gmail.com>  
Matthew Cottingham <mattcottingham@gmail.com>  
Matthew Dempsky <mdempsky@google.com>  
Matthew Denton <mdenton@skyportsystems.com>  
Matthew Holt <Matthew.Holt+git@gmail.com>  
Matthew Horsnell <matthew.horsnell@gmail.com>  
Matthew Waters <mwwaters@gmail.com>  
Matthias Dtsch <matze@mdoetsch.de>  
Matthias Frei <matthias.frei@inf.ethz.ch>  
Matthieu Hauglustaine <matt.hauglustaine@gmail.com>  
Matthieu Olivier <olivier.matthieu@gmail.com>  
Matthijs Kooijman <matthijs@stdin.nl>  
Mattias Appelgren <mattias@ppelgren.se>  
Mauricio Alvarado <mauricio.alvarado@leftfieldlabs.com>  
Max Drosdo.wwww <gIran1q@gmail.com>  
Max Riveiro <kavu13@gmail.com>  
Max Schmitt <max@schmitt.mx>  
Max Semenik <maxsem.wiki@gmail.com>  
Max Ushakov <ushmax@gmail.com>  
Maxim Eryomenko <moeryomenko@gmail.com>  
Maxim Khitrov <max@mxcrypt.com>  
Maxim Pimenov <mpimenov@google.com>  
Maxim Pugachev <pugachev.mm@gmail.com>  
Maxim Ushakov <ushakov@google.com>  
Maxime de Roucy <maxime.deroucy@gmail.com>  
Mximo Cuadros Ortiz <mcuadros@gmail.com>  
Maxwell Krohn <themax@gmail.com>  
Maya Rashish <maya@NetBSD.org>  
Mayank Kumar <krmayankk@gmail.com>  
Mehrad Sadeghi <2012.linkinpark@gmail.com>  
Meir Fischer <meirfischer@gmail.com>  
Meng Zhuo <mengzhuo1203@gmail.com> <mzh@golangcn.org>  
Mhd Sulhan <m.shulhan@gmail.com>  
Mia Zhu <CrystalZhu1025getu@gmail.com>  
Micah Stetson <micah.stetson@gmail.com>  
Michael Anthony Knyszczek <mknyszczek@google.com>  
Michael Brandenburg <mbrandenburg@bolste.com>  
Michael Chaten <mchaten@gmail.com>  
Michael Cook <code@mdcook.net>  
Michael Darakananda <pongad@google.com>

Michael Dorner <mail@michaeldorf.de>  
Michael Edwards <medwards@walledcity.ca>  
Michael Elkins <michael.elkins@gmail.com>  
Michael Ellis <micellis@justin.tv>  
Michael Fraenkel <michael.fraenkel@gmail.com>  
Michael Fromberger <michael.j.fromberger@gmail.com>  
Michael Gehring <mg@ebfe.org> <gnirheg.leahcim@gmail.com>  
Michael Henderson <mdhender@users.noreply.github.com>  
Michael Hendricks <michael@ndrix.org>  
Michael Hoisie <hoisie@gmail.com>  
Michael Hudson-Doyle <michael.hudson@linaro.org>  
Michael Kasch <michael.kasch@gmail.com>  
Michael Kufl <golang@c.michael-kaeufl.de>  
Michael Kelly <mjk@google.com>  
Michal Lvesque-Dion <mlevesquedion@google.com>  
Michael Lewis <mikelikespie@gmail.com>  
Michael MacInnis <Michael.P.MacInnis@gmail.com>  
Michael Marineau <michael.marineau@coreos.com>  
Michael Matloob <matloob@google.com>  
Michael McConville <momconville@gmail.com>  
Michael McGreevy <mcgreevy@golang.org>  
Michael McLoughlin <mmcloughlin@gmail.com>  
Michael Munday <mike.munday@ibm.com>  
Michael Pearson <mipearson@gmail.com>  
Michael Piatek <piatek@google.com>  
Michael Pratt <mpratt@google.com>  
Michael Schaller <michael@5challer.de>  
Michael Schurter <michael.schurter@gmail.com>  
Michael Shields <mshields@google.com>  
Michael Stapelberg <michael@stapelberg.de> <mstplbrg@googlemail.com>  
Michael Steinert <mike.steinert@gmail.com>  
Michael T. Jones <mtj@google.com> <michael.jones@gmail.com>  
Michael Teichgrber <mteichgraeber@gmx.de> <mt4swm@googlemail.com>  
Michael Traver <mtraver@google.com>  
Michael Vetter <g.bluehut@gmail.com>  
Michael Vogt <mvo@ubuntu.com>  
Michail Kargakis <mkargaki@redhat.com>  
Michal Bohuslvek <mbohuslvek@gmail.com>  
Michal Cierniak <cierniak@google.com>  
Micha Derkacz <ziutek@inet.pl>  
Michal Franc <lam.michal.franc@gmail.com>  
Michal Hruby <michal@axiom.co>  
Micha owicki <mlowicki@gmail.com>  
Michal Pristas <michal.pristas@gmail.com>  
Michal Rostecki <mrostecki@suse.de>  
Michal Stokluska <mstoklus@redhat.com>  
Michalis Kargakis <michaliskargakis@gmail.com>  
Michel Lespinasse <>walken@google.com>

Michel Levieux <mlevieux42@gmail.com>  
Michele Di Pede <michele.di.pede@gmail.com>  
Mickael Kerjean <mickael.kerjean@gmail.com>  
Mickey Reiss <mickeyreiss@gmail.com>  
Miek Gieben <miek@miek.nl> <remigius.gieben@gmail.com>  
Miguel Acero <acero@google.com>  
Miguel Mendez <stxmendez@gmail.com>  
Miguel Molina <hi@mvader.me>  
Mihai Borobocea <MihaiBorobocea@gmail.com>  
Mihai Moldovan <ionic@ionic.de>  
Mihai Todor <todormihai@gmail.com>  
Mihail Minaev <minaev.mike@gmail.com>  
Mikael Tillenius <mikti42@gmail.com>  
Mike Andrews <mra@xoba.com>  
Mike Appleby <mike@app.leby.org>  
Mike Danese <mikedanese@google.com>  
Mike Houston <mike@kothar.net>  
Mike Kabischev <kabischev@gmail.com>  
Mike Rosset <mike.rosset@gmail.com>  
Mike Samuel <mikesamuel@gmail.com>  
Mike Solomon <msolo@gmail.com>  
Mike Strosaker <strosake@us.ibm.com>  
Mike Tsao <mike@sowbug.com>  
Mike Wiacek <mjwiacek@google.com>  
Mikhail Faraponov <11322032+moredure@users.noreply.github.com>  
Mikhail Fesenko <proggga@gmail.com>  
Mikhail Gusarov <dottedmag@dottedmag.net>  
Mikhail Panchenko <m@mihasya.com>  
Miki Tebeka <miki.tebeka@gmail.com>  
Mikio Hara <mikioh.mikioh@gmail.com>  
Mikkel Krautz <mikkel@krautz.dk> <krautz@gmail.com>  
Mikoaj Baranowski <mikolajb@gmail.com>  
Milan Knezevic <milan.knezevic@mips.com>  
Milan Patel <bicelot3@gmail.com>  
Milutin Jovanovic <jovanovic.milutin@gmail.com>  
MinJae Kwon <mingrammer@gmail.com>  
Miquel Sabat Sol <mikisabate@gmail.com>  
Mirko Hansen <baaazen@gmail.com>  
Miroslav Genov <mgenov@gmail.com>  
Misty De Meo <mistydemeo@gmail.com>  
Mohamed Attahri <mohamed@attahri.com>  
Mohit Agarwal <mohit@sdf.org>  
Mohit kumar Bajoria <mohitbajo36@gmail.com>  
Mohit Verma <vmohit.93@gmail.com>  
Momchil Velikov <momchil.velikov@gmail.com>  
Monis Khan <mkhan@redhat.com>  
Monty Taylor <mordred@inaugust.com>  
Moritz Fain <moritz@fain.io>

Moriyoshi Koizumi <mozo@mozo.jp>  
Morten Siebuhr <sbhr@sbhr.dk>  
Mshe van der Sterre <moshevds@gmail.com>  
Mostafa Solati <mostafa.solati@gmail.com>  
Mostyn Bramley-Moore <mostyn@antipode.se>  
Mrunal Patel <mrunalp@gmail.com>  
Muhammad Falak R Wani <falakreyaz@gmail.com>  
Muhammad Hamza Farrukh <hamzafarrukh141@gmail.com>  
Muhammed Uluyol <uluyol0@gmail.com>  
Muir Manders <muir@mnd.rs>  
Mukesh Sharma <sharma.mukesh439@gmail.com>  
Mura Li <mura\_li@castech.com.tw>  
Mykhailo Lesyk <mikhail@lesyk.org>  
Nahum Shalman <nahamu@gmail.com>  
Naman Aggarwal <aggarwal.nam@gmail.com>  
Naman Gera <namangera15@gmail.com>  
Nan Deng <monnand@gmail.com>  
Nao Yonashiro <owan.orisano@gmail.com>  
Naoki Kanatani <k12naoki@gmail.com>  
Natanael Copa <ncopa@mirantis.com>  
Nate Wilkinson <nathanwilk7@gmail.com>  
Nathan Cantelmo <n.cantelmo@gmail.com>  
Nathan Caza <mastercactus@gmail.com>  
Nathan Dias <nathan.dias@orijtech.com>  
Nathan Fiscaletti <nathan.fiscaletti@vrazo.com>  
Nathan Humphreys <nkhumphreys@gmail.com>  
Nathan John Youngman <nj@nathany.com>  
Nathan Otterness <otterness@cs.unc.edu>  
Nathan P Finch <nate.finch@gmail.com>  
Nathan VanBenschoten <nvanbenschoten@gmail.com>  
Nathan Youngman <git@nathany.com>  
Nathan(yinian) Hu <nathanhu@google.com>  
Nathaniel Cook <nvcook42@gmail.com>  
Naveen Kumar Sangi <naveenkumarsangi@protonmail.com>  
Neeilan Selvalingam <neeilan96@gmail.com>  
Neelesh Chandola <neelesh.c98@gmail.com>  
Nehal J Wani <nehaljw.kkd1@gmail.com>  
Neil Alexander <neilalexander@neilalexander.dev>  
Neil Lyons <nwjlyons@googlemail.com>  
Neuman Vong <neuman.vong@gmail.com>  
Neven Sajko <nsajko@gmail.com>  
Nevins Bartolomeo <nevins.bartolomeo@gmail.com>  
Niall Sheridan <nsheridan@gmail.com>  
Nic Day <nic.day@me.com>  
Nicholas Asimov <nicholas@asimov.me>  
Nicholas Katsaros <nick@nickkatsaros.com>  
Nicholas Maniscalco <nicholas@maniscalco.com>  
Nicholas Ng <nickng@nickng.io>

Nicholas Presta <nick@nickpresta.ca> <nick1presta@gmail.com>  
Nicholas Sullivan <nicholas.sullivan@gmail.com>  
Nicholas Waples <nwaples@gmail.com>  
Nick Anthony <Liberatys@outlook.com>  
Nick Cooper <nmvc@google.com>  
Nick Craig-Wood <nick@craig-wood.com> <nickcw@gmail.com>  
Nick Harper <nharper@google.com>  
Nick Kubala <nkubala@google.com>  
Nick Leli <nicholasleli@gmail.com>  
Nick Miyake <nmiyake@users.noreply.github.com>  
Nick Patavalis <nick.patavalis@gmail.com>  
Nick Petroni <npetroni@cs.umd.edu>  
Nick Robinson <nrobinson13@gmail.com>  
Nick Sherron <nsherron90@gmail.com>  
Nick Smolin <nick27surgut@gmail.com>  
Nicolas BRULEZ <n.brulez@gmail.com>  
Nicolas Kaiser <nikai@nikai.net>  
Nicolas Owens <mischief@offblast.org>  
Nicolas S. Dade <nic.dade@gmail.com>  
Niek Sanders <niek.sanders@gmail.com>  
Niels Widger <niels.widger@gmail.com>  
Nigel Kerr <nigel.kerr@gmail.com>  
Nigel Tao <nigeltao@golang.org>  
Nik Nyby <nnyby@columbia.edu>  
Nikhil Benesch <nikhil.benesch@gmail.com>  
Nikita Gillmann <nikita@n0.is> <ng0@n0.is>  
Nikita Kryuchkov <nkryuchkov10@gmail.com>  
Nikita Melekhin <nimelehin@gmail.com>  
Nikita Vanyasin <nikita.vanyasin@gmail.com>  
Niklas Schnelle <niklas.schnelle@gmail.com>  
Niko Dziemba <niko@dziemba.com>  
Nikolay Turpitko <nikolay@turpitko.com>  
Nikson Kanti Paul <nikson.sust@gmail.com>  
Nils Larsgrd <nilsmagnus@gmail.com>  
Nir Soffer <nirsof@gmail.com>  
Niranjan Godbole <niranjan8192@gmail.com>  
Nishanth Shanmugham <nishanth.gerrard@gmail.com>  
Noah Campbell <noahcampbell@gmail.com>  
Noah Goldman <noahg34@gmail.com>  
Noah Santschi-Cooney <noah@santschi-cooney.ch>  
Noble Johnson <noblepoly@gmail.com>  
Nodir Turakulov <nodir@google.com>  
Noel Georgi <git@frezbo.com>  
Nooras Saba <saba@golang.org>  
Norberto Lopes <nlopes.ml@gmail.com>  
Norman B. Lancaster <qbradq@gmail.com>  
Nuno Cruces <ncruces@users.noreply.github.com>  
Obei Sideg <obei.sideg@gmail.com>

Obeyda Djefal <djefobey@gmail.com>  
Odin Ugedal <odin@ugedal.com>  
Oleg Bulatov <dmage@yandex-team.ru>  
Oleg Vakheta <helginet@gmail.com>  
Oleku Konko <oleku.konko@gmail.com>  
Oling Cat <olingcat@gmail.com>  
Oliver Hookins <ohookins@gmail.com>  
Oliver Powell <oliverpowell84@gmail.com>  
Oliver Stenbom <ostenbom@pivotal.io>  
Oliver Tan <otan@cockroachlabs.com>  
Oliver Tonnhofer <olt@bogosoftware.com>  
Olivier Antoine <olivier.antoine@gmail.com>  
Olivier Duperray <duperray.olivier@gmail.com>  
Olivier Mengu <olivier.mengue@gmail.com>  
Olivier Poitrey <rs@dailymotion.com>  
Olivier Saingre <osaingre@gmail.com>  
Olivier Wulveryck <olivier.wulveryck@gmail.com>  
Omar Jarjur <ojarjur@google.com>  
Onkar Jadhav <omjadhav2610@gmail.com>  
Ori Bernstein <ori@eigenstate.org>  
Ori Rawlings <orirawlings@gmail.com>  
Oryan Moshe <iamoryamoshe@gmail.com>  
Osamu TONOMORI <osamingo@gmail.com>  
Oscar Sderlund <oscar.soderlund@einride.tech>  
zgr Kesim <oec-go@kesim.org>  
Pablo Caderno <kaderno@gmail.com>  
Pablo Lalloni <plalloni@gmail.com>  
Pablo Rozas Larraondo <pablo.larraondo@anu.edu.au>  
Pablo Santiago Blum de Aguiar <scorphus@gmail.com>  
Padraig Kitterick <padraigkitterick@gmail.com>  
Pallat Anchaleechamaikorn <yod.pallat@gmail.com>  
Pan Chenglong <1004907659@qq.com>  
Panos Georgiadis <pgeorgiadis@suse.de>  
Pantelis Sampaziotis <psampaz@gmail.com>  
Paolo Giarrusso <p.giarrusso@gmail.com>  
Paolo Martini <mrtnpaolo@gmail.com>  
Parker Moore <parkrmoore@gmail.com>  
Parminder Singh <parmsingh101@gmail.com>  
Pascal Dierich <pascal@pascaldierich.com>  
Pascal S. de Kloe <pascal@quies.net>  
Paschalis Tsilias <paschalis.tsilias@gmail.com>  
Pasi Thkp <pasi.tahkapaa@gmail.com>  
Pat Moroney <pat@pat.email>  
Patrick Barker <barkerp@vmware.com>  
Patrick Crosby <patrick@stathat.com>  
Patrick Gavlin <pgavlin@gmail.com>  
Patrick Gundlach <gundlach@speedata.de>  
Patrick Higgins <patrick.allen.higgins@gmail.com>

Patrick Jones <ithuriel@google.com>  
Patrick Lee <pattyshack101@gmail.com>  
Patrick Mzard <patrick@mezard.eu>  
Patrick Mylund Nielsen <patrick@patrickmn.com>  
Patrick Pelletier <pp.pelletier@gmail.com>  
Patrick Riley <pfr@google.com>  
Patrick Smith <pat42smith@gmail.com>  
Patrik Lundin <patrik@sigterm.se>  
Patrik Nyblom <pnyb@google.com>  
Paul A Querna <paul.querna@gmail.com>  
Paul Borman <borman@google.com>  
Paul Boyd <boyd.paul2@gmail.com>  
Paul Chang <paulchang@google.com>  
Paul D. Weber <x0bdev@gmail.com>  
Paul Davis <43160081+Pawls@users.noreply.github.com>  
Paul E. Murphy <murp@ibm.com>  
Paul Forgey <paulf@tessier-ashpool.net>  
Paul Hammond <paul@paulhammond.org>  
Paul Hankin <paulhankin@google.com>  
Paul Jolly <paul@myitcv.org.uk>  
Paul Lalonde <paul.a.lalonde@gmail.com>  
Paul M Furley <paul@paulfurley.com>  
Paul Marks <pmarks@google.com>  
Paul Meyer <paul.meyer@microsoft.com>  
Paul Nasrat <pnasrat@google.com>  
Paul PISCUC <paul.piscuc@gmail.com>  
Paul Querna <pquerna@apache.org>  
Paul Rosania <paul.rosania@gmail.com>  
Paul Ruest <pruest@gmail.com>  
Paul Sbarra <Sbarra.Paul@gmail.com>  
Paul Smith <paulsmith@pobox.com> <paulsmith@gmail.com>  
Paul Tyng <paul@paultyng.net>  
Paul van Brouwershaven <paul@vanbrouwershaven.com>  
Paul Wankadia <junyer@google.com>  
Paulo Casaretto <pcasaretto@gmail.com>  
Paulo Flabiano Smorigo <pfsmorigo@linux.vnet.ibm.com>  
Paulo Gomes <paulo.gomes.uk@gmail.com>  
Pavel Kositsyn <kositsyn.pa@phystech.edu>  
Pavel Paulau <pavel.paulau@gmail.com>  
Pavel Watson <watsonpavel@gmail.com>  
Pavel Zinovkin <pavel.zinovkin@gmail.com>  
Pavlo Sumkin <ymkins@gmail.com>  
Pawel Knap <pawelknap88@gmail.com>  
Pawel Szczur <filemon@google.com>  
Pawe Szulik <pawel.szulik@intel.com>  
Pedro Lopez Mareque <pedro.lopez.mareque@gmail.com>  
Pei Xian Chee <luciolas1991@gmail.com>  
Pei-Ming Wu <p408865@gmail.com>



Pen Tree <appletree2479@outlook.com>  
Peng Gao <peng.gao.dut@gmail.com>  
Percy Wegmann <ox.to.a.cart@gmail.com>  
Perry Abbott <perry.j.abbott@gmail.com>  
Petar Dambovaliev <petar.atanasov.1987@gmail.com>  
Petar Maymoukov <petarm@gmail.com>  
Peter Armitage <peter.armitage@gmail.com>  
Peter Bourgon <peter@bourgon.org>  
Peter Collingbourne <pcc@google.com>  
Peter Conerly <pconerly@gmail.com>  
Peter Dotchev <dotchev@gmail.com>  
Peter Froehlich <peter.hans.froehlich@gmail.com>  
Peter Gonda <pgonda@google.com>  
Peter Hoyes <pahoyes@gmail.com>  
Peter Kleiweg <pkleiweg@xs4all.nl>  
Peter McKenzie <petermck@google.com>  
Peter Moody <pmoody@uber.com>  
Peter Morjan <pmorjan@gmail.com>  
Peter Mundy <go.peter.90@gmail.com>  
Peter Nguyen <peter@mictis.com>  
Pter Surnyi <speter.go1@gmail.com>  
Pter Szab <pts@google.com>  
Pter Szilgyi <peterke@gmail.com>  
Peter Teichman <pteichman@fastly.com>  
Peter Tseng <ptseng@squareup.com>  
Peter Waldschmidt <peter@waldschmidt.com>  
Peter Waller <peter.waller@gmail.com>  
Peter Weinberger <pjw@golang.org>  
Peter Williams <pwil3058@gmail.com>  
Peter Wu <pwu@cloudflare.com>  
Peter Zhang <i@ddatsh.com>  
Petr Jedin <petr.jediny@gmail.com>  
Petrica Voicu <pvoicu@paypal.com>  
Phil Pearl <philip.j.r.pearl@gmail.com>  
Phil Pennock <pdp@golang.org>  
Philip Brgesen <philip.borgesen@gmail.com>  
Philip Brown <phil@bolthole.com>  
Philip Hofer <phofer@umich.edu>  
Philip K. Warren <pkwarren@gmail.com>  
Philip Nelson <me@pnelson.ca>  
Philipp Sauter <sauterp@protonmail.com>  
Philipp Stephani <phst@google.com>  
Phillip Campbell <15082+phillc@users.noreply.github.com>  
Pierre Carru <pierre.carru@eshard.com>  
Pierre Durand <pierredurand@gmail.com>  
Pierre Prinetti <pierreprinetti@gmail.com>  
Pierre Roullon <pierre.roullon@gmail.com>  
Piers <google@hellopiers.pro>

Pieter Droogendijk <pieter@binky.org.uk>  
Pietro Gagliardi <pietro10@mac.com>  
Piyush Mishra <piyush@codeitout.com>  
Plekhanov Maxim <kishtatix@gmail.com>  
Poh Zi How <poh.zihow@gmail.com>  
Polina Osadcha <polliosa@google.com>  
Pontus Leitzler <leitzler@gmail.com>  
Povilas Versockas <p.versockas@gmail.com>  
Prajwal Koirala <16564273+Prajwal-Koirala@users.noreply.github.com>  
Prasanga Siripala <pj@pjeps.com.au>  
Prasanna Swaminathan <prasanna@mediamath.com>  
Prashant Agrawal <prashant.a.vjti@gmail.com>  
Prashant Varanasi <prashant@prashantv.com>  
Praveen Kumar <praveen+git@kumar.in>  
Pravendra Singh <hackpravj@gmail.com>  
Preetam Jinka <pj@preet.am>  
Pure White <wu.purewhite@gmail.com>  
Qais Patankar <qaisjp@gmail.com>  
Qiuxuan Zhu <ilsh1022@gmail.com>  
Quan Tran <qeed.quan@gmail.com>  
Quan Yong Zhai <qyzhai@gmail.com>  
Quentin Perez <qperez@ocs.online.net>  
Quentin Renard <contact@asticode.com>  
Quentin Smith <quentin@golang.org>  
Quey-Liang Kao <s101062801@m101.nthu.edu.tw>  
Quim Muntal <quimmuntal@gmail.com>  
Quinn Slack <sqs@sourcegraph.com>  
Quinten Yearsley <qyearsley@chromium.org>  
Quoc-Viet Nguyen <afelion@gmail.com>  
Rabin Gaire <rabingaire20@gmail.com>  
Radek Simko <radek.simko@gmail.com>  
Radek Sohlich <sohlich@gmail.com>  
Radu Berinde <radu@cockroachlabs.com>  
Rafal Jeczalik <rjeczalik@gmail.com>  
Raghavendra Nagaraj <jamdagni86@gmail.com>  
Rahul Bajaj <rahulrb0509@gmail.com>  
Rahul Chaudhry <rahulchaudhry@chromium.org>  
Rahul Wadhvani <rahulwadhvani21@gmail.com>  
Raif S. Naffah <go@naffah-raif.name>  
Rajat Goel <rajat.goel2010@gmail.com>  
Rajath Agasthya <rajathagasthya@gmail.com>  
Rajender Reddy Kompally <rajenderreddykompally@gmail.com>  
Ralph Corderoy <ralph@inputplus.co.uk>  
Ramazan AYYILDIZ <rayyildiz@gmail.com>  
Ramesh Dharan <dharan@google.com>  
Randy Reddig <randy@alta.software>  
Raph Levien <raph@google.com>  
Raphael Geronimi <raphael.geronimi@gmail.com>

Raul Silvera <rsilvera@google.com>  
Ravil Bikbulatov <weeellz12@gmail.com>  
RaviTeja Pothana <ravi.tezu@gmail.com>  
Ray Tung <rtung@thoughtworks.com>  
Ray Wu <ray@liftoff.io>  
Raymond Kazlauskas <raima220@gmail.com>  
Rebecca Stambler <rstambler@golang.org>  
Reilly Watson <reillywatson@gmail.com>  
Reinaldo de Souza Jr <juniorz@gmail.com>  
Remi Gillig <remigillig@gmail.com>  
Rmy Oudompheng <oudomphe@phare.normalesup.org> <remyoudompheng@gmail.com>  
Ren Ogaki <re.yuz77777@gmail.com>  
Rens Rikkerink <Ikkerens@users.noreply.github.com>  
Rhys Hiltner <rhys@justin.tv>  
Ricardo Padilha <ricardospadilha@gmail.com>  
Ricardo Pchevuzinske Katz <ricardo.katz@serpro.gov.br>  
Ricardo Seriani <ricardo.seriani@gmail.com>  
Rich Hong <hong.rich@gmail.com>  
Richard Barnes <rlb@ipv.sx>  
Richard Crowley <r@rcrowley.org>  
Richard Dingwall <rdingwall@gmail.com>  
Richard Eric Gavaletz <gavaletz@gmail.com>  
Richard Gibson <richard.gibson@gmail.com>  
Richard Miller <miller.research@gmail.com>  
Richard Musiol <mail@richard-musiol.de> <neelance@gmail.com>  
Richard Pickering <richard.pickering@hotmail.co.uk>  
Richard Ulmer <codesoap@mailbox.org>  
Richard Wilkes <wilkes@me.com>  
Rick Arnold <rickarnoldjr@gmail.com>  
Rick Hudson <rlh@golang.org>  
Rick Sayre <whorfin@gmail.com>  
Rijnard van Tonder <rvantonder@gmail.com>  
Riku Voipio <riku.voipio@linaro.org>  
Riley Avron <ra.git@posteo.net>  
Risto Jaakko Saarelm <rsaarelm@gmail.com>  
Rob Earhart <earhart@google.com>  
Rob Findley <rfindley@google.com>  
Rob Norman <rob.norman@infinitycloud.com>  
Rob Phoenix <rob@robphoenix.com>  
Rob Pike <r@golang.org>  
Robert Ayrapetyan <robert.ayrapetyan@gmail.com>  
Robert Burke <rebo@google.com>  
Robert Daniel Kortschak <dan.kortschak@adelaide.edu.au> <dan@kortschak.io>  
Robert Dinu <r@varp.se>  
Robert Engels <rengels@ix.netcom.com>  
Robert Figueiredo <robfig@gmail.com>  
Robert Griesemer <gri@golang.org>  
Robert Hencke <robert.hencke@gmail.com>

Robert Iannucci <iannucci@google.com>  
Robert Kuska <rkuska@gmail.com>  
Robert Obryk <robryk@gmail.com>  
Robert Seseek <rseseek@google.com>  
Robert Snedegar <roberts@google.com>  
Robert Stepanek <robert.stepanek@gmail.com>  
Robert van Gent <rvangent@google.com>  
Robert-Andr Mauchin <zebob.m@gmail.com>  
Roberto Clapis <robclap8@gmail.com>  
Roberto Selbach <roberto@selbach.ca>  
Robin Eklind <r.eklind.87@gmail.com>  
Robin Zhong <robin@robinzhong.co>  
Rodolfo Carvalho <rhcarvalho@gmail.com>  
Rodolfo Rodriguez <rodolfobgibson@gmail.com>  
Rodrigo Moraes de Oliveira <rodrigo.moraes@gmail.com>  
Rodrigo Rafael Monti Kochenburger <divoxx@gmail.com>  
Roger Pau Monn <royger@gmail.com>  
Roger Peppe <rogpeppe@gmail.com>  
Rohan Challa <rohan@golang.org>  
Rohan Verma <rohanverma2004@gmail.com>  
Rohith Ravi <entombedvirus@gmail.com>  
Roi Martin <jroi.martin@gmail.com>  
Roland Illig <roland.illig@gmx.de>  
Roland Shoemaker <rolandshoemaker@gmail.com>  
Romain Bague <romain.bague@elwinar.com>  
Roman Budnikov <romanyx90@yandex.ru>  
Roman Kollr <roman.kollar.0@gmail.com>  
Roman Shchekin <mrqtros@gmail.com>  
Ron Hashimoto <mail@h2so5.net>  
Ron Minnich <rminnich@gmail.com>  
Ronnie Ebrin <ebrin.ronnie@protonmail.com>  
Ross Chater <rdchater@gmail.com>  
Ross Kinsey <rossikinsey@gmail.com>  
Ross Light <light@google.com> <rlight2@gmail.com>  
Ross Smith II <ross@smithii.com>  
Rowan Marshall <rowanajmarshall@gmail.com>  
Rowan Worth <sqweek@gmail.com>  
Rudi Kramer <rudi.kramer@gmail.com>  
Rui Ueyama <ruiui@google.com>  
Ruixin Bao <ruixin.bao@ibm.com>  
Ruslan Andreev <ruslan.andreev@huawei.com>  
Ruslan Nigmatullin <elessar@dropbox.com>  
Russ Cox <rsc@golang.org>  
Russell Haering <russellhaering@gmail.com>  
Ryan Bagwell <ryanbagwell@outlook.com>  
Ryan Barrett <ryanb@google.com>  
Ryan Boehning <ryan.boehning@apcera.com>  
Ryan Brown <ribrdb@google.com>

Ryan Canty <jrcanty@gmail.com>  
Ryan Dahl <ry@tinyclouds.org>  
Ryan Hitchman <hitchmanr@gmail.com>  
Ryan Kohler <ryankohler@google.com>  
Ryan Leung <rleungx@gmail.com>  
Ryan Lower <rpjlower@gmail.com>  
Ryan Roden-Corrent <ryan@rcorre.net>  
Ryan Seys <ryan@ryanseys.com>  
Ryan Slade <ryanslade@gmail.com>  
Ryan Zhang <ryan.zhang@docker.com>  
Ryoichi KATO <ryo1kato@gmail.com>  
Ryoya Sekino <ryoyasekino1993@gmail.com>  
Ryuji Iwata <qt.luigi@gmail.com>  
Ryuma Yoshida <ryuma.y1117@gmail.com>  
Ryuzo Yamamoto <ryuzo.yamamoto@gmail.com>  
S.alar Onur <caglar@10ur.org>  
Sabin Mihai Rapan <sabin.rapan@gmail.com>  
Sad Pencil <qh06@qq.com>  
Sai Cheemalapati <saicheems@google.com>  
Sai Kiran Dasika <kirandasika30@gmail.com>  
Sakeven Jiang <jc5930@sina.cn>  
Salaheddin M. Mahmud <salah.mahmud@gmail.com>  
Salmn Aljammz <s@0x65.net>  
Sam Arnold <sarnold64@bloomberg.net>  
Sam Boyer <tech@samboyer.org>  
Sam Chen <chenxsan@gmail.com>  
Sam Cross <samgcdev@gmail.com>  
Sam Ding <samding@ca.ibm.com>  
Sam Hug <samuel.b.hug@gmail.com>  
Sam Thorogood <thorogood@google.com> <sam.thorogood@gmail.com>  
Sam Whited <sam@samwhited.com>  
Sam Xie <xsambundy@gmail.com>  
Sameer Ajmani <sameer@golang.org> <ajmani@gmail.com>  
Sami Commerot <samic@google.com>  
Sami Pnknen <sami.ponkanen@gmail.com>  
Samuel Kelemen <SCKelemen@users.noreply.github.com>  
Samuel Tan <samueltan@google.com>  
Samuele Pedroni <pedronis@lucediaruna.net>  
San Ye <xyesan@gmail.com>  
Sander van Harmelen <sander@vanharmelen.nl>  
Sanjay Menakuru <balasanjay@gmail.com>  
Santhosh Kumar Tekuri <santhosh.tekuri@gmail.com>  
Santiago De la Cruz <51337247+xhit@users.noreply.github.com>  
Sarah Adams <shadams@google.com>  
Sardorbek Pulatov <sardorbek.pulatov@outlook.com>  
Sascha Brawer <sascha@brawer.ch>  
Sasha Lionheart <lionhearts@google.com>  
Sasha Sobol <sasha@scaledinference.com>

Satoru Kitaguchi <rule.the.fate.myfirststory@gmail.com>  
Scott Barron <scott.barron@github.com>  
Scott Bell <scott@sctsm.com>  
Scott Cotton <scott@mindowl.com>  
Scott Crunkleton <crunk1@gmail.com>  
Scott Ferguson <scottwferg@gmail.com>  
Scott Lawrence <bytbody@gmail.com>  
Scott Mansfield <smansfield@netflix.com>  
Scott Ragan <ragansa@fb.com>  
Scott Schwartz <scotts@golang.org>  
Scott Van Woudenberg <scottvw@google.com>  
Sean Burford <sburford@google.com>  
Sean Chen <oohcode@gmail.com>  
Sean Chittenden <seanc@joyent.com>  
Sean Christopherson <sean.j.christopherson@intel.com>  
Sean Dolphin <Sean.Dolphin@kpcompass.com>  
Sean Harger <sharger@google.com>  
Sean Harrington <sean.harrington@leftfieldlabs.com>  
Sean Hildebrand <seanwhildebrand@gmail.com>  
Sean Liao <seankhliao@gmail.com>  
Sean Rees <sean@erifax.org>  
Sebastiaan van Stijn <github@gone.nl>  
Sebastian Chlopecki <sebsebmc@gmail.com>  
Sebastian Kinne <skinne@google.com>  
Sebastian Schmidt <yath@google.com>  
Sebastien Binet <seb.binet@gmail.com>  
Sbastien Paolacci <sebastien.paolacci@gmail.com>  
Sebastien Williams-Wynn <sebastien@cytora.com>  
Segev Finer <segev208@gmail.com>  
Seiji Takahashi <timaki.st@gmail.com>  
Sergei Lemeshkin <sergeilem@gmail.com>  
Sergei Skorobogatov <skorobo@rambler.ru>  
Sergei Zagurskii <gvozdoder@gmail.com>  
Sergey 'Snake' Gromov <snake.scaly@gmail.com>  
Sergey Arseev <sergey.arseev@intel.com>  
Sergey Dobrodey <sergey.dobrodey@synesis.ru>  
Sergey Frolov <sfrolov@google.com>  
Sergey Glushchenko <gsserge@gmail.com>  
Sergey Ivanov <ser1325@gmail.com>  
Sergey Kacheev <S.Kacheev@gmail.com>  
Sergey Lukjanov <me@slukjanov.name>  
Sergey Mishin <sergeymishine@gmail.com>  
Sergey Mudrik <sergey.mudrik@gmail.com>  
Sergey Semin <gray12511@gmail.com>  
Sergey Yanykin <syanykin@ozon.ru>  
Sergio Luis O. B. Correia <sergio@correia.cc>  
Sergiusz Bazanski <bazanski@gmail.com>  
Serhat Giydiren <serhatgydiren@gmail.com>

Serhii Aheienko <serhii.aheienko@gmail.com>  
Seth Hoenig <seth.a.hoenig@gmail.com>  
Seth Vargo <sethvargo@gmail.com>  
Shaba Abhiram <shabarivas.abhiram@gmail.com>  
Shahar Kohanim <skohanim@gmail.com>  
Shailesh Suryawanshi <ss.shailesh28@gmail.com>  
Shamil Garatuev <garatuev@gmail.com>  
Shamim Akhtar <shamim.rhce@gmail.com>  
Shane Hansen <shanemhansen@gmail.com>  
Shang Jian Ding <sding3@ncsu.edu>  
Shaozhen Ding <dsz0111@gmail.com>  
Shaquille Que <shaquille@golang.org>  
Shaquille Wyan Que <shaqywyuan@gmail.com>  
Shaun Dunning <shaun.dunning@uservoice.com>  
Shawn Elliott <selliot@microsoft.com>  
Shawn Ledbetter <sledbetter@google.com>  
Shawn Smith <shawn.p.smith@gmail.com>  
Shawn Walker-Salas <shawn.walker@oracle.com>  
Shenghou Ma <minux@golang.org> <minux.ma@gmail.com>  
Shengjing Zhu <zsj950618@gmail.com>  
Shengyu Zhang <shengyu.zhang@chaitin.com>  
Shi Han Ng <shihanng@gmail.com>  
ShihCheng Tu <mrtoastcheng@gmail.com>  
Shijie Hao <haormj@gmail.com>  
Shin Fan <shinfan@google.com>  
Shinji Tanaka <shinji.tanaka@gmail.com>  
Shinnosuke Sawada <6warashi9@gmail.com>  
Shintaro Kaneko <kaneshin0120@gmail.com>  
Shivakumar GN <shivakumar.gn@gmail.com>  
Shivani Singhal <shivani.singhal2804@gmail.com>  
Shivansh Rai <shivansh@freebsd.org>  
Shivashis Padhi <shivashispadhi@gmail.com>  
Shoshin Nikita <shoshin\_nikita@fastmail.com>  
Shota Sugiura <s.shota.710.3506@gmail.com>  
Shubham Sharma <shubham.sha12@gmail.com>  
Shuhei Takahashi <nya@chromium.org>  
Shun Fan <sfan@google.com>  
Silvan Jegen <s.jegen@gmail.com>  
Simo Gomes Viana <simaogmv@gmail.com>  
Simarpreet Singh <simar@linux.com>  
Simon Drake <simondrake1990@gmail.com>  
Simon Ferquel <simon.ferquel@docker.com>  
Simon Frei <freisim93@gmail.com>  
Simon Jefford <simon.jefford@gmail.com>  
Simon Law <sflaw@sflaw.ca>  
Simon Rawet <simon@rawet.se>  
Simon Rozman <simon@rozman.si>  
Simon Ser <contact@emersion.fr>

Simon Thulbourn <simon+github@thulbourn.com>  
Simon Whitehead <chemnova@gmail.com>  
Sina Siadat <siadat@gmail.com>  
Sjoerd Siebinga <sjoerd.siebinga@gmail.com>  
Sokolov Yura <funny.falcon@gmail.com>  
Song Gao <song@gao.io>  
Song Lim <songlim327@gmail.com>  
Songjiayang <songjiayang1@gmail.com>  
Songlin Jiang <hollowman@hollowman.ml>  
Soojin Nam <jsunam@gmail.com>  
Sren L. Hansen <soren@linux2go.dk>  
Sparrow Li <liyuncylx@gmail.com>  
Spencer Kocot <spencerkocot@gmail.com>  
Spencer Nelson <s@spenczar.com>  
Spencer Tung <spencertung@google.com>  
Spenser Black <spenserblack01@gmail.com>  
Spring Mc <heresy.mc@gmail.com>  
Srdjan Petrovic <spetrovic@google.com>  
Sridhar Venkatakrishnan <sridhar@laddoo.net>  
Srinidhi Kaushik <shrinidhi.kaushik@gmail.com>  
StalkR <stalkr@stalkr.net>  
Stan Hu <stanhu@gmail.com>  
Stan Schwertly <stan@schwertly.com>  
Stanislav Afanasev <php.progger@gmail.com>  
Steeve Morin <steeve.morin@gmail.com>  
Stefan Baebler <sbaebler@outbrain.com>  
Stefan Nilsson <snilsson@nada.kth.se> <trolleriprofessorn@gmail.com>  
Stepan Shabalin <neverliberty@gmail.com>  
Stephan Klatt <stephan.klatt@gmail.com>  
Stephan Renatus <srenatus@chef.io>  
Stephan Zuercher <zuercher@gmail.com>  
Stphane Travostino <stephane.travostino@gmail.com>  
Stephen Lewis <stephen@sock.org.uk>  
Stephen Lu <steuhs@users.noreply.github.com>  
Stephen Ma <stephenm@golang.org>  
Stephen McQuay <stephen@mcquay.me>  
Stephen Searles <stephens2424@gmail.com>  
Stephen Weinberg <stephen@q5comm.com>  
Steve Francia <spf@golang.org>  
Steve Gilbert <stevegilbert23@gmail.com>  
Steve LoFurno <slofurno@gmail.com>  
Steve McCoy <mccoyst@gmail.com>  
Steve Mynott <steve.mynott@gmail.com>  
Steve Newman <snewman@google.com>  
Steve Phillips <elimistev@gmail.com>  
Steve Streeting <steve@stevestreeting.com>  
Steve Traut <straut@google.com>  
Steven Buss <sbuss@google.com>



Steven Elliot Harris <seharris@gmail.com>  
Steven Erenst <stevenerenst@gmail.com>  
Steven Hartland <steven.hartland@multiplay.co.uk>  
Steven Littiebrant <imgroxx@gmail.com>  
Steven Maude <git@stevenmaude.co.uk>  
Steven Wilkin <stevenwilkin@gmail.com>  
Stuart Jansen <sjansen@buscaluz.org>  
Subham Sarkar <sarkar.subhams2@gmail.com>  
Sue Spence <virtuallysue@gmail.com>  
Sugu Sougoumarane <ssougou@gmail.com>  
Suharsh Sivakumar <suharshs@google.com>  
Sukrit Handa <sukrit.handa@utoronto.ca>  
Sunny <me@darkowlzz.space>  
Suriyaa Sundararuban <suriyaasundararuban@gmail.com>  
Suvaditya Sur <suvaditya.sur@gmail.com>  
Suyash <dextrous93@gmail.com>  
Suzy Mueller <suzmue@golang.org>  
Sven Almgren <sven@tras.se>  
Sven Blumenstein <svbl@google.com>  
Sven Lee <lee1300394324@gmail.com>  
Sven Taute <sven.taute@gmail.com>  
Sylvain Zimmer <sylvain@sylvainzimmer.com>  
Syohei YOSHIDA <syohex@gmail.com>  
Szabolcs Nagy <nsz@port70.net>  
Taavi Kivisik <taavi.kivisik@gmail.com>  
Tad Fisher <tadfisher@gmail.com>  
Tad Glines <tad.glines@gmail.com>  
Tadas Valiukas <tadovas@gmail.com>  
Tadeo Kondrak <me@tadeo.ca>  
Taesu Pyo <pyotaesu@gmail.com>  
Tai Le <letientai299@gmail.com>  
Taj Khattrra <taj.khattrra@gmail.com>  
Takashi Matsuo <tmatsuo@google.com>  
Takashi Mima <tk.s.m1205@gmail.com>  
Takayoshi Nishida <takayoshi.nishida@gmail.com>  
Takeshi YAMANASHI <9.nashi@gmail.com>  
Takuto Ikuta <tikuta@google.com>  
Takuya Ueda <uedatakuya@gmail.com>  
Tal Shprecher <tshprecher@gmail.com>  
Tams Gulcsi <tgulacsi78@gmail.com>  
Tamir Duberstein <tamird@gmail.com>  
Tao Qingyun <qingyunha@gmail.com>  
Tao Shen <shentaoskyking@gmail.com>  
Tao Wang <twang2218@gmail.com>  
Tarmigan Casebolt <tarmigan@gmail.com>  
Taro Aoki <aizu.s1230022@gmail.com>  
Taru Karttunen <taruti@taruti.net>  
Tatsuhiko Tsujikawa <tatsuhiko.t@gmail.com>

Tatsuya Kaneko <m.ddotx.f@gmail.com>  
Taufiq Rahman <taufiqrx8@gmail.com>  
Teague Cole <tnc1443@gmail.com>  
Ted Kornish <golang@tedkornish.com>  
Tejasvi Nareddy <tejunareddy@gmail.com>  
Terin Stock <terinjokes@gmail.com>  
Terrel Shumway <gopher@shumway.us>  
Tetsuo Kiso <tetsuokiso9@gmail.com>  
Than McIntosh <thanm@google.com>  
Thanabodee Charoenpiriyakij <wingyminus@gmail.com>  
Thanatat Tamtan <acoshift@gmail.com>  
The Hatsune Daishi <nao20010128@gmail.com>  
Thiago Avelino <t@avelino.xxx>  
Thiago Fransosi Farina <thiago.farina@gmail.com> <tfarina@chromium.org>  
Thom Wiggers <thom@thomwiggers.nl>  
Thomas Alan Copeland <talan.copeland@gmail.com>  
Thomas Bonfort <thomas.bonfort@gmail.com>  
Thomas Bouldin <inlined@google.com>  
Thomas Bruyelle <thomas.bruyelle@gmail.com>  
Thomas Bushnell, BSG <tbushnell@google.com>  
Thomas de Zeeuw <thomasdezeeuw@gmail.com>  
Thomas Desrosiers <thomasdesr@gmail.com>  
Thomas Habets <habets@google.com>  
Thomas Kappler <tkappler@gmail.com>  
Thomas Meson <zllak@hycik.org>  
Thomas Symborski <thomas.symborski@gmail.com>  
Thomas Wanielista <tomwans@gmail.com>  
Thorben Krueger <thorben.krueger@gmail.com>  
Thordur Bjornsson <thorduri@secnorth.net>  
Tiago Peczenyj <tpeczenyj@weborama.com>  
Tiago Queiroz <contato@tiago.eti.br>  
Tianji Wu <the729@gmail.com>  
Tianon Gravi <admwiggin@gmail.com>  
Tilman Dilo <tilman.dilo@gmail.com>  
Tim Cooijmans <timcooijmans@gmail.com>  
Tim Cooper <tim.cooper@layeh.com>  
Tim Ebringer <tim.ebringer@gmail.com>  
Tim Heckman <t@heckman.io>  
Tim Henderson <tim.tadh@gmail.com>  
Tim Hockin <thockin@google.com>  
Tim King <taking@google.com>  
Tim Mhlmann <muhlemmer@gmail.com>  
Tim Swast <swast@google.com>  
Tim Wright <tenortim@gmail.com>  
Tim Xu <xiaoxubeii@gmail.com>  
Timmy Douglas <timmyd983@gmail.com>  
Timo Savola <timo.savola@gmail.com>  
Timo Truys <alkaloid.btx@gmail.com>

Timothy Gu <timothygu99@gmail.com>  
Timothy Studd <tim@timestudd.com>  
Tipp Moseley <tipp@google.com>  
Tiwei Bie <tiwei.btw@antgroup.com>  
Tobias Assarsson <tobias.assarsson@gmail.com>  
Tobias Columbus <tobias.columbus@gmail.com> <tobias.columbus@googlemail.com>  
Tobias Klauser <tklauser@distanz.ch>  
Tobias Kohlbau <tobias@kohlbau.de>  
Toby Burrell <kurin@google.com>  
Todd Kulesza <tkulesza@google.com>  
Todd Neal <todd@tneal.org>  
Todd Wang <toddwang@gmail.com>  
Tom Anthony <git@tomanthony.co.uk>  
Tom Bergan <tombergan@google.com>  
Tom Freudenberg <tom.freudenberg@4commerce.de>  
Tom Heng <zhm20070928@gmail.com>  
Tom Lanyon <tomlanyon@google.com>  
Tom Levy <tomlevy93@gmail.com>  
Tom Limoncelli <tal@whatexit.org>  
Tom Linfoord <tomlinfoord@gmail.com>  
Tom Panton <tom@tomandtally.co.uk>  
Tom Parkin <tom.parkin@gmail.com>  
Tom Payne <twpayne@gmail.com>  
Tom Szymanski <tgs@google.com>  
Tom Thorogood <me+google@tomthorogood.co.uk>  
Tom Wilkie <tom@weave.works>  
Tom Zierbock <tomzierbock@gmail.com>  
Tomas Dabasinskas <tomas@dabasinskas.net>  
Tommy Schaefer <tommy.schaefer@teecom.com>  
Tomohiro Kusumoto <zabio1192@gmail.com>  
Tomoya Ishizaki <zaq1tomo@gmail.com>  
Tonis Tiigi <tonistiigi@gmail.com>  
Tony Reix <tony.reix@bull.net>  
Tony Walker <walkert.uk@gmail.com>  
Tooru Takahashi <tooru.takahashi134@gmail.com>  
Tor Andersson <tor.andersson@gmail.com>  
Torben Schinke <torben.schinke@neotos.de>  
Tormod Erevik Lea <tormodlea@gmail.com>  
Toshihiro Shiino <shiino.toshihiro@gmail.com>  
Toshiki Shima <hayabusa1419@gmail.com>  
Totoro W <tw19881113@gmail.com>  
Travis Bischel <travis.bischel@gmail.com>  
Travis Cline <travis.cline@gmail.com>  
Trevor Dixon <trevordixon@gmail.com>  
Trevor Strohman <trevor.strohman@gmail.com>  
Trey Lawrence <lawrence.trey@gmail.com>  
Trey Roessig <trey.roessig@gmail.com>  
Trey Tacon <ttacon@gmail.com>

Tristan Amini <tamini01@ca.ibm.com>  
Tristan Colgate <tcolgate@gmail.com>  
Tristan Ooohry <ooohry@gmail.com>  
Tristan Rice <rice@fn.lc>  
Troels Thomsen <troels@thomsen.io>  
Trong Bui <trong.buiquoc@gmail.com>  
Trung Nguyen <trung.n.k@gmail.com>  
Tsuji Daishiro <dram.dt.shonan@gmail.com>  
Tudor Golubenco <tudor.g@gmail.com>  
Tugdual Saunier <tugdual.saunier@gmail.com>  
Tuo Shan <sturbo89@gmail.com> <shantuo@google.com>  
Tyler Bui-Palsulich <tpalsulich@google.com>  
Tyler Bunnell <tylerbunnell@gmail.com>  
Tyler Treat <ttreat31@gmail.com>  
Tyson Andre <tysonandre775@gmail.com>  
Tzach Shabtay <tzachshabtay@gmail.com>  
Tzu-Chiao Yeh <su3g4284zo6y7@gmail.com>  
Tzu-Jung Lee <roylee17@currant.com>  
Udalov Max <re.udalov@gmail.com>  
Uddeshya Singh <singhuddeshyaofficial@gmail.com>  
Ugorji Nwoke <ugorji@gmail.com>  
Ulf Holm Nielsen <doktor@dyregod.dk>  
Ulrich Kunitz <uli.kunitz@gmail.com>  
Umang Parmar <umangjparmar@gmail.com>  
Uriel Mangado <uriel@berlinblue.org>  
Urvil Patel <patelurvil38@gmail.com>  
Utkarsh Dixit <53217283+utkarsh-extc@users.noreply.github.com>  
Uttam C Pawar <uttam.c.pawar@intel.com>  
Vadim Grek <vadimprog@gmail.com>  
Vadim Vygonets <unixdj@gmail.com>  
Val Polouchkine <vpolouch@justin.tv>  
Valentin Vidic <vvidic@valentin-vidic.from.hr>  
Vaughn Iverson <vsivsi@yahoo.com>  
Vee Zhang <veezhang@126.com> <vveezhang@gmail.com>  
Vega Garcia Luis Alfonso <vegacom@gmail.com>  
Venil Noronha <veniln@vmware.com>  
Veselkov Konstantin <kostozyb@gmail.com>  
Viacheslav Poturaev <vearutop@gmail.com>  
Victor Chudnovsky <vchudnov@google.com>  
Victor Michel <victor@optimize.cloud>  
Victor Vrantchan <vrancean+github@gmail.com>  
Vignesh Ramachandra <vickyramachandra@gmail.com>  
Vikas Kedia <vikask@google.com>  
Ville Skytt <ville.skytta@iki.fi>  
Vincent Ambo <tazjin@googlemail.com>  
Vincent Batts <vbatts@hashbangbash.com> <vbatts@gmail.com>  
Vincent Vanackere <vincent.vanackere@gmail.com>  
Vinu Rajashekhar <vinutheraj@gmail.com>

Vish Subramanian <vish@google.com>  
Vishal Dalwadi <dalwadivishal26@gmail.com>  
Vishvananda Ishaya <vishvananda@gmail.com>  
Visweswara R <r.visweswara@gmail.com>  
Vitaly Zdanevich <zdanevich.vitaly@ya.ru>  
Vitor De Mario <vitordemario@gmail.com>  
Vivek Sekhar <vsekhar@google.com>  
Vivek V <iamvivekv96@gmail.com>  
Vivian Liang <vliang88@gmail.com>  
Vlad Krasnov <vlad@cloudflare.com>  
Vladimir Evgrafov <evgrafov.vladimir@gmail.com>  
Vladimir Kovpak <cn007b@gmail.com>  
Vladimir Kuzmin <vkuzmin@uber.com>  
Vladimir Mihailenco <vladimir.webdev@gmail.com>  
Vladimir Nikishenko <vova616@gmail.com>  
Vladimir Stefanovic <vladimir.stefanovic@imgtec.com>  
Vladimir Varankin <nek.narqo@gmail.com>  
Vojtech Bocek <vbocek@gmail.com>  
Volker Dobler <dr.volker.dobler@gmail.com>  
Volodymyr Paprotski <vpaprots@ca.ibm.com>  
Vyacheslav Pachkov <slava.pach@gmail.com>  
W. Trevor King <wking@tremily.us>  
Wade Simmons <wade@wades.im>  
Wagner Riffel <wgriffel@gmail.com>  
Walt Della <walt@javins.net>  
Walter Poupore <wpoupore@google.com>  
Wander Lairson Costa <wcosta@mozilla.com>  
Wang Xuerui <git@xen0n.name>  
Warren Fernandes <warren.f.fernandes@gmail.com>  
Wayne Ashley Berry <wayneashleyberry@gmail.com>  
Wedson Almeida Filho <wedsonaf@google.com>  
Weerasak Chongnguluam <singpor@gmail.com>  
Wi Cngru <crvv.mail@gmail.com>  
Wei Fu <fhfuwei@163.com>  
Wei Guangjing <vcc.163@gmail.com>  
Wei Xiao <wei.xiao@arm.com>  
Wei Xikai <xykwei@gmail.com>  
Weichao Tang <tevic.tt@gmail.com>  
Weilu Jia <optix2000@gmail.com>  
Weixie Cui <cuiweixie@gmail.com> <523516579@qq.com>  
Wembley G. Leach, Jr <wembley.gl@gmail.com>  
Wenlei (Frank) He <wlhe@google.com>  
Wenzel Lowe <lowewenzel@gmail.com>  
Wil Selwood <wselwood@gmail.com>  
Wilfried Teiken <wteiken@google.com>  
Will Beason <willbeason@gmail.com>  
Will Chan <willchan@google.com>  
Will Faught <will.faught@gmail.com>

Will Morrow <wmorrow.qdt@qualcommdatacenter.com>  
Will Norris <willnorris@google.com>  
Will Storey <will@summercat.com>  
Willem van der Schyff <willemvds@gmail.com>  
William Chan <willchan@chromium.org>  
William Chang <mr.williamchang@gmail.com>  
William Josephson <wjosephson@gmail.com>  
William Langford <wlangfor@gmail.com>  
William Orr <will@worrbase.com> <ay1244@gmail.com>  
William Poussier <william.poussier@gmail.com>  
Wisdom Omuya <deafgoat@gmail.com>  
Wu Yunzhou <yunzhouwu@gmail.com>  
Xi Ruoyao <xry23333@gmail.com>  
Xia Bin <snyh@snyh.org>  
Xiangdong Ji <xiangdong.ji@arm.com>  
Xiaodong Liu <teaofmoli@gmail.com>  
Xing Gao <18340825824@163.com>  
Xing Xing <mikespook@gmail.com>  
Xingqiang Bai <bxq2011hust@qq.com>  
Xu Fei <badgangkiller@gmail.com>  
Xudong Zhang <felixmelon@gmail.com>  
Xudong Zheng <7pkvm5aw@slicealias.com>  
Xuyang Kang <xuyangkang@gmail.com>  
Yamagishi Kazutoshi <ykzts@desire.sh>  
Yan Zou <yzou@google.com>  
Yang Hau <vulxj0j8j8@gmail.com>  
Yang Tian <linuxty@gmail.com>  
Yann Hodique <yhodique@google.com>  
Yann Kerherv <yann.kerherve@gmail.com>  
Yann Salan <yannsalaun1@gmail.com>  
Yannic Bonenberger <contact@yannic-bonenberger.com>  
Yao Zhang <lunaria21@gmail.com>  
Yaron de Leeuw <jarondl@google.com>  
Yaroslav Vorobiov <yar.vorobiov@gmail.com>  
Yasha Bubnov <girokompass@gmail.com>  
Yasser Abdolmaleki <yasser@yasser.ca>  
Yasuharu Goto <matope.ono@gmail.com>  
Yasuhiro Matsumoto <mattn.jp@gmail.com>  
Yasutaka Shinzaki <shinzaki@yasu26.tech>  
Yasuyuki Oka <yasuyk@gmail.com>  
Yazen Shunnar <yazen.shunnar@gmail.com>  
Yestin Sun <ylh@pdx.edu>  
Yesudeep Mangalapilly <yesudeep@google.com>  
Yissakhar Z. Beck <yissakhar.beck@gmail.com>  
Yo-An Lin <yoanlin93@gmail.com>  
Yohei Takeda <yo.tak0812@gmail.com>  
Yongjian Xu <i3dmaster@gmail.com>  
Yorman Arias <cixtords@gmail.com>

Yoshiyuki Kanno <nekotaroh@gmail.com> <yoshiyuki.kanno@stoic.co.jp>  
Yoshiyuki Mineo <yoshiyuki.mineo@gmail.com>  
Yosuke Akatsuka <yosuke.akatsuka@gmail.com>  
Youfu Zhang <zhangyoufu@gmail.com>  
Yu Heng Zhang <annita.zhang@cn.ibm.com>  
Yu Xuan Zhang <zyxsh@cn.ibm.com>  
Yu, Li-Yu <afg984@gmail.com>  
Yuichi Kishimoto <yk2220s@gmail.com>  
Yuichi Nishiwaki <yuichi.nishiwaki@gmail.com>  
Yuji Yaginuma <yuuji.yaginuma@gmail.com>  
Yuki Ito <mrno110y@gmail.com>  
Yuki OKUSHI <huyuumi.dev@gmail.com>  
Yuki Osaki <yuki.osaki7@gmail.com>  
Yuki Yugui Sonoda <yugui@google.com>  
Yukihiro Nishinaka <6elpinal@gmail.com>  
YunQiang Su <syq@debian.org>  
Yuntao Wang <ytcoode@gmail.com>  
Yury Smolsky <yury@smolsky.by>  
Yusuke Kagiwada <block.rxckin.beats@gmail.com>  
Yuusei Kuwana <kuwana@kumama.org>  
Yuval Pavel Zholkover <paulzhol@gmail.com>  
Yves Junqueira <yvesj@google.com> <yves.junqueira@gmail.com>  
Zac Bergquist <zbergquist99@gmail.com>  
Zach Bintliff <zbintliff@gmail.com>  
Zach Gershman <zachgersh@gmail.com>  
Zach Hoffman <zrhoffman@apache.org>  
Zach Jones <zachj1@gmail.com>  
Zachary Amsden <zach@thundertoken.com>  
Zachary Burkett <zburkett@splitcubestudios.com>  
Zachary Gershman <zgershman@pivotal.io>  
Zaiyang Li <zaiyangli777@gmail.com>  
Zak <zrjknill@gmail.com>  
Zakatell Kanda <hi@zkanda.io>  
Zellyn Hunter <zellyn@squareup.com> <zellyn@gmail.com>  
Zev Goldstein <zev.goldstein@gmail.com>  
Zhang Boyang <zhangboyang.id@gmail.com>  
Zheng Dayu <davidzheng23@gmail.com>  
Zheng Xu <zheng.xu@arm.com>  
Zhengyu He <hzy@google.com>  
Zhi Zheng <zhi.zheng052@gmail.com>  
Zhongpeng Lin <zplin@uber.com>  
Zhongtao Chen <chenzhongtao@126.com>  
Zhongwei Yao <zhongwei.yao@arm.com>  
Zhou Guangyuan <zhouguangyuan.xian@gmail.com>  
Zhou Peng <p@ctruple.cn>  
Ziad Hatahet <hatahet@gmail.com>  
Ziheng Liu <lzhfromustc@gmail.com>  
Zizhao Zhang <btw515wolf2@gmail.com>

Zorion Arrizabalaga <zorionk@gmail.com>  
Zvonimir Pavlinovic <zpavlinovic@google.com>  
Zyad A. Ali <zyad.ali.me@gmail.com>  
<a.maksadbek@gmail.com>  
<max.faceless.frei@gmail.com>  
<hagen1778@gmail.com>  
<tbunyk@gmail.com>  
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# Name <email address>  
Raul Silvera <rsilvera@google.com>  
Tipp Moseley <tipp@google.com>  
Hyoun Kyu Cho <netforce@google.com>  
Martin Spier <spiermar@gmail.com>  
Taco de Wolff <tacodewolff@gmail.com>  
Andrew Hunter <andrewhunter@gmail.com>  
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 * Tim Martin
 * Rob Earhart
 * Rob Siemborski
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Local-Date: Fri, 06 Jun 2003 13:18:52 -0400  
Date: Fri, 6 Jun 2003 10:18:52 -0700  
From: Juan Gomez <juang@us.ibm.com>  
To: Stephen Frost <sfrost@debian.org>  
X-Mailer: Lotus Notes Release 5.0.2a (Intl) 23 November 1999  
Subject: Re: Juan C. Gomez license in OpenLDAP Source

Stephen,

"There is no restriction on modifications and derived works" on the work I did for the openldap server as long as this is consistent with the openldap license. Please forward this email to Kurt so he does the appropriate changes to the files to reflect this.

Regards, Juan

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MA

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Date: Thu, 5 Jun 2003 16:53:32 -0400 (EDT)  
From: Mark Adamson <adamson@andrew.cmu.edu>  
To: Stephen Frost <sfrost@debian.org>  
Subject: Re: Mark Adamson license in OpenLDAP source

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-Mark

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  - \* Subject: Re: OpenLDAP Licenseing issues
  - \* From: "Kurt D. Zeilenga" <Kurt@OpenLDAP.org>
  - \* Date: Wed, 28 May 2003 10:55:44 -0700
  - \* Cc: Steve Langasek <vorlon@netexpress.net>,debian-legal@lists.debian.org, openldap-devel@OpenLDAP.org
  - \* In-reply-to: <20030528162613.GB8524@ns.snowman.net>
  - \* Message-id: <5.2.0.9.0.20030528094229.02924780@127.0.0.1>
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Regards, Kurt

-----

# 1.18 [github.com/go-kit/log](https://github.com/go-kit/log) v0.2.0

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```
/*
```

```
* 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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-

1.2.11.dfsg/examples/gzlog.c

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```
/* 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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-
```

```
1.2.11.dfsg/examples/zpipe.c
```

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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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\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/MiniZip64\_info.txt

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/\* 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

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\*/

Found in path(s):

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/trees.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 (minizip) ( <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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/unzip.c

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/adler32.c

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/fitblk.c

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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/mztools.c
* /opt/cola/permits/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/mztools.h
```

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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzclose.c
```

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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzwrite.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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inffast.h
```

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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zconf.h.cmakein
```

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zconf.h.in

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zconf.h

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/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

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

\*/

Found in path(s):

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/deflate.h

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

/\* infrees.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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/infrees.c

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-

1.2.11.dfsg/examples/zran.c

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzread.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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/deflate.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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inffast.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 (<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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/zip.h

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inflate.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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/infrees.h

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zutil.h

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

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

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version 1.2, 14 Aug 2012

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Mark Adler madler@alumni.caltech.edu

\*/

Found in path(s):

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gzjoin.c

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zutil.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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/uncompr.c

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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/test/example.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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/test/infcover.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/1400134737_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gun.c
```

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gzlog.h

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

/\* zlib.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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzlib.c

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

Not copyrighted -- provided to the public domain

Found in path(s):

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/zlib\_how.html

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/examples/gzappend.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](mailto: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](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. Dobbs'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>](mailto: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>](mailto: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](mailto: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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/README  
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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/infback.c  
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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/crc32.c

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Altered source versions must be plainly marked as such, and must not be  
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Found in path(s):

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zlib.3

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/gzguts.h

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/test/minigzip.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> )

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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-----  
Changes

See header of unzip64.c

\*/

Found in path(s):

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/contrib/minizip/unzip.h

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/zlib.h

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/msdos/Makefile.dj2

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/old/Makefile.emx

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/msdos/Makefile.emx

\* /opt/cola/permits/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/old/os2/Makefile.os2

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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/inflate.h

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](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](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](mailto: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](mailto: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 `inftrees.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](mailto: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 `vsnprintf()` 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/1400134737\_1661788173.3023732/0/zlib-1-2-11-dfsg-orig-2-tar-gz/zlib-1.2.11.dfsg/FAQ

## 1.21 p11-kit 0.23.22-1

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## 1.22 lz4 1.9.3-2

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LZ4 Library

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Version 2, June 1991

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Upstream-Name: liblz4

Upstream-Contact: Yann Collet <Cyan4973@github.com>

Source: <https://github.com/lz4/lz4>

Files: \*

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## 1.23 postgresql 13.9-0+deb11u1

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```

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```

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## 1.32 libidn 2.3.0-5

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```

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## 1.39 libgpg-error 1.38-2

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```

```
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```

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## 1.40 lz4 1.9.10

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```

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Upstream-Name: liblz4

Upstream-Contact: Yann Collet <[Cyan4973@github.com](mailto:Cyan4973@github.com)>

Source: <https://github.com/lz4/lz4>

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## 1.41 monkey-http-daemon 1.9.10

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## Constant-time SSSE3 AES core implementation.

## version 0.1

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## By Mike Hamburg (Stanford University), 2009

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```
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```

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```
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```

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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

## 1.47 base-files 11.1+deb11u6

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src/rdxxhash.[ch] src/lz4\*.ch: git@github.com:lz4/lz4.git e2827775ee80d2ef985858727575df31fc60f1f3

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parts of src/rdmurmur2.c: git@github.com:abandoned/murmur2.git

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librdkafka - Apache Kafka C driver library

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```

```
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## 1.51 run v1.1.0

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## 1.52 libgrypt 1.8.7-6

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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.
```

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than `show w' and `show c'; they could even be mouse-clicks or menu items--whatever suits your program.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the program, if necessary. Here is a sample; alter the names:

```
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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