tar

Package tar implements access to tar archives.

zip

Package zip provides support for reading and writing ZIP archives.

bufio

Package bufio implements buffered I/O. It wraps an io.Reader or io.Writer object, creating another object (Reader or Writer) that also implements the interface but provides buffering and some help for textual I/O.

builtin

Package builtin provides documentation for Go's predeclared identifiers.

bytes

Package bytes implements functions for the manipulation of byte slices.

cmp

Package cmp provides types and functions related to comparing ordered values.

compress

bzip2

Package bzip2 implements bzip2 decompression.

flate

Package flate implements the DEFLATE compressed data format, described in RFC 1951.

gzip

Package gzip implements reading and writing of gzip format compressed files, as specified in RFC 1952.

lzw

Package lzw implements the Lempel-Ziv-Welch compressed data format, described in T. A. Welch, “A Technique for High-Performance Data Compression”, Computer, 17(6) (June 1984), pp 8-19.

zlib

Package zlib implements reading and writing of zlib format compressed data, as specified in RFC 1950.

container

heap

Package heap provides heap operations for any type that implements heap.Interface.

list

Package list implements a doubly linked list.

ring

Package ring implements operations on circular lists.

context

Package context defines the Context type, which carries deadlines, cancellation signals, and other request-scoped values across API boundaries and between processes.

crypto

Package crypto collects common cryptographic constants.

aes

Package aes implements AES encryption (formerly Rijndael), as defined in U.S. Federal Information Processing Standards Publication 197.

cipher

Package cipher implements standard block cipher modes that can be wrapped around low-level block cipher implementations.

des

Package des implements the Data Encryption Standard (DES) and the Triple Data Encryption Algorithm (TDEA) as defined in U.S. Federal Information Processing Standards Publication 46-3.

dsa

Package dsa implements the Digital Signature Algorithm, as defined in FIPS 186-3.

ecdh

Package ecdh implements Elliptic Curve Diffie-Hellman over NIST curves and Curve25519.

ecdsa

Package ecdsa implements the Elliptic Curve Digital Signature Algorithm, as defined in FIPS 186-4 and SEC 1, Version 2.0.

ed25519

Package ed25519 implements the Ed25519 signature algorithm.

elliptic

Package elliptic implements the standard NIST P-224, P-256, P-384, and P-521 elliptic curves over prime fields.

hmac

Package hmac implements the Keyed-Hash Message Authentication Code (HMAC) as defined in U.S. Federal Information Processing Standards Publication 198.

md5

Package md5 implements the MD5 hash algorithm as defined in RFC 1321.

rand

Package rand implements a cryptographically secure random number generator.

rc4

Package rc4 implements RC4 encryption, as defined in Bruce Schneier's Applied Cryptography.

rsa

Package rsa implements RSA encryption as specified in PKCS #1 and RFC 8017.

sha1

Package sha1 implements the SHA-1 hash algorithm as defined in RFC 3174.

sha256

Package sha256 implements the SHA224 and SHA256 hash algorithms as defined in FIPS 180-4.

sha512

Package sha512 implements the SHA-384, SHA-512, SHA-512/224, and SHA-512/256 hash algorithms as defined in FIPS 180-4.

subtle

Package subtle implements functions that are often useful in cryptographic code but require careful thought to use correctly.

tls

Package tls partially implements TLS 1.2, as specified in RFC 5246, and TLS 1.3, as specified in RFC 8446.

x509

Package x509 implements a subset of the X.509 standard.

x509/pkix

Package pkix contains shared, low level structures used for ASN.1 parsing and serialization of X.509 certificates, CRL and OCSP.

database

sql

Package sql provides a generic interface around SQL (or SQL-like) databases.

sql/driver

Package driver defines interfaces to be implemented by database drivers as used by package sql.

debug

buildinfo

Package buildinfo provides access to information embedded in a Go binary about how it was built.

dwarf

Package dwarf provides access to DWARF debugging information loaded from executable files, as defined in the DWARF 2.0 Standard at http://dwarfstd.org/doc/dwarf-2.0.0.pdf.

elf

Package elf implements access to ELF object files.

gosym

Package gosym implements access to the Go symbol and line number tables embedded in Go binaries generated by the gc compilers.

macho

Package macho implements access to Mach-O object files.

pe

Package pe implements access to PE (Microsoft Windows Portable Executable) files.

plan9obj

Package plan9obj implements access to Plan 9 a.out object files.

embed

Package embed provides access to files embedded in the running Go program.

encoding

Package encoding defines interfaces shared by other packages that convert data to and from byte-level and textual representations.

ascii85

Package ascii85 implements the ascii85 data encoding as used in the btoa tool and Adobe's PostScript and PDF document formats.

asn1

Package asn1 implements parsing of DER-encoded ASN.1 data structures, as defined in ITU-T Rec X.690.

base32

Package base32 implements base32 encoding as specified by RFC 4648.

base64

Package base64 implements base64 encoding as specified by RFC 4648.

binary

Package binary implements simple translation between numbers and byte sequences and encoding and decoding of varints.

csv

Package csv reads and writes comma-separated values (CSV) files.

gob

Package gob manages streams of gobs - binary values exchanged between an [Encoder] (transmitter) and a [Decoder] (receiver).

hex

Package hex implements hexadecimal encoding and decoding.

json

Package json implements encoding and decoding of JSON as defined in RFC 7159.

pem

Package pem implements the PEM data encoding, which originated in Privacy Enhanced Mail.

xml

Package xml implements a simple XML 1.0 parser that understands XML name spaces.

errors

Package errors implements functions to manipulate errors.

expvar

Package expvar provides a standardized interface to public variables, such as operation counters in servers.

flag

Package flag implements command-line flag parsing.

fmt

Package fmt implements formatted I/O with functions analogous to C's printf and scanf.

go

ast

Package ast declares the types used to represent syntax trees for Go packages.

build

Package build gathers information about Go packages.

build/constraint

Package constraint implements parsing and evaluation of build constraint lines.

constant

Package constant implements Values representing untyped Go constants and their corresponding operations.

doc

Package doc extracts source code documentation from a Go AST.

doc/comment

Package comment implements parsing and reformatting of Go doc comments, (documentation comments), which are comments that immediately precede a top-level declaration of a package, const, func, type, or var.

format

Package format implements standard formatting of Go source.

importer

Package importer provides access to export data importers.

parser

Package parser implements a parser for Go source files.

printer

Package printer implements printing of AST nodes.

scanner

Package scanner implements a scanner for Go source text.

token

Package token defines constants representing the lexical tokens of the Go programming language and basic operations on tokens (printing, predicates).

types

Package types declares the data types and implements the algorithms for type-checking of Go packages.

version

Package version provides operations on [Go versions] in [Go toolchain name syntax]: strings like "go1.20", "go1.21.0", "go1.22rc2", and "go1.23.4-bigcorp".

hash

Package hash provides interfaces for hash functions.

adler32

Package adler32 implements the Adler-32 checksum.

crc32

Package crc32 implements the 32-bit cyclic redundancy check, or CRC-32, checksum.

crc64

Package crc64 implements the 64-bit cyclic redundancy check, or CRC-64, checksum.

fnv

Package fnv implements FNV-1 and FNV-1a, non-cryptographic hash functions created by Glenn Fowler, Landon Curt Noll, and Phong Vo.

maphash

Package maphash provides hash functions on byte sequences.

html

Package html provides functions for escaping and unescaping HTML text.

template

Package template (html/template) implements data-driven templates for generating HTML output safe against code injection.

image

Package image implements a basic 2-D image library.

color

Package color implements a basic color library.

color/palette

Package palette provides standard color palettes.

draw

Package draw provides image composition functions.

gif

Package gif implements a GIF image decoder and encoder.

jpeg

Package jpeg implements a JPEG image decoder and encoder.

png

Package png implements a PNG image decoder and encoder.

index

suffixarray

Package suffixarray implements substring search in logarithmic time using an in-memory suffix array.

io

Package io provides basic interfaces to I/O primitives.

fs

Package fs defines basic interfaces to a file system.

ioutil

Package ioutil implements some I/O utility functions.

log

Package log implements a simple logging package.

slog

Package slog provides structured logging, in which log records include a message, a severity level, and various other attributes expressed as key-value pairs.

syslog

Package syslog provides a simple interface to the system log service.

maps

Package maps defines various functions useful with maps of any type.

math

Package math provides basic constants and mathematical functions.

big

Package big implements arbitrary-precision arithmetic (big numbers).

bits

Package bits implements bit counting and manipulation functions for the predeclared unsigned integer types.

cmplx

Package cmplx provides basic constants and mathematical functions for complex numbers.

rand

Package rand implements pseudo-random number generators suitable for tasks such as simulation, but it should not be used for security-sensitive work.

rand/v2

Package rand implements pseudo-random number generators suitable for tasks such as simulation, but it should not be used for security-sensitive work.

mime

Package mime implements parts of the MIME spec.

multipart

Package multipart implements MIME multipart parsing, as defined in RFC 2046.

quotedprintable

Package quotedprintable implements quoted-printable encoding as specified by RFC 2045.

net

Package net provides a portable interface for network I/O, including TCP/IP, UDP, domain name resolution, and Unix domain sockets.

http

Package http provides HTTP client and server implementations.

http/cgi

Package cgi implements CGI (Common Gateway Interface) as specified in RFC 3875.

http/cookiejar

Package cookiejar implements an in-memory RFC 6265-compliant http.CookieJar.

http/fcgi

Package fcgi implements the FastCGI protocol.

http/httptest

Package httptest provides utilities for HTTP testing.

http/httptrace

Package httptrace provides mechanisms to trace the events within HTTP client requests.

http/httputil

Package httputil provides HTTP utility functions, complementing the more common ones in the net/http package.

http/pprof

Package pprof serves via its HTTP server runtime profiling data in the format expected by the pprof visualization tool.

mail

Package mail implements parsing of mail messages.

netip

Package netip defines an IP address type that's a small value type.

rpc

Package rpc provides access to the exported methods of an object across a network or other I/O connection.

rpc/jsonrpc

Package jsonrpc implements a JSON-RPC 1.0 ClientCodec and ServerCodec for the rpc package.

smtp

Package smtp implements the Simple Mail Transfer Protocol as defined in RFC 5321.

textproto

Package textproto implements generic support for text-based request/response protocols in the style of HTTP, NNTP, and SMTP.

url

Package url parses URLs and implements query escaping.

os

Package os provides a platform-independent interface to operating system functionality.

exec

Package exec runs external commands.

signal

Package signal implements access to incoming signals.

user

Package user allows user account lookups by name or id.

path

Package path implements utility routines for manipulating slash-separated paths.

filepath

Package filepath implements utility routines for manipulating filename paths in a way compatible with the target operating system-defined file paths.

plugin

Package plugin implements loading and symbol resolution of Go plugins.

reflect

Package reflect implements run-time reflection, allowing a program to manipulate objects with arbitrary types.

regexp

Package regexp implements regular expression search.

syntax

Package syntax parses regular expressions into parse trees and compiles parse trees into programs.

runtime

Package runtime contains operations that interact with Go's runtime system, such as functions to control goroutines.

cgo

Package cgo contains runtime support for code generated by the cgo tool.

coverage

debug

Package debug contains facilities for programs to debug themselves while they are running.

metrics

Package metrics provides a stable interface to access implementation-defined metrics exported by the Go runtime.

pprof

Package pprof writes runtime profiling data in the format expected by the pprof visualization tool.

race

Package race implements data race detection logic.

trace

Package trace contains facilities for programs to generate traces for the Go execution tracer.

slices

Package slices defines various functions useful with slices of any type.

sort

Package sort provides primitives for sorting slices and user-defined collections.

strconv

Package strconv implements conversions to and from string representations of basic data types.

strings

Package strings implements simple functions to manipulate UTF-8 encoded strings.

sync

Package sync provides basic synchronization primitives such as mutual exclusion locks.

atomic

Package atomic provides low-level atomic memory primitives useful for implementing synchronization algorithms.

syscall

Package syscall contains an interface to the low-level operating system primitives.

js

Package js gives access to the WebAssembly host environment when using the js/wasm architecture.

testing

Package testing provides support for automated testing of Go packages.

fstest

Package fstest implements support for testing implementations and users of file systems.

iotest

Package iotest implements Readers and Writers useful mainly for testing.

quick

Package quick implements utility functions to help with black box testing.

slogtest

Package slogtest implements support for testing implementations of log/slog.Handler.

text

scanner

Package scanner provides a scanner and tokenizer for UTF-8-encoded text.

tabwriter

Package tabwriter implements a write filter (tabwriter.Writer) that translates tabbed columns in input into properly aligned text.

template

Package template implements data-driven templates for generating textual output.

template/parse

Package parse builds parse trees for templates as defined by text/template and html/template.

time

Package time provides functionality for measuring and displaying time.

tzdata

Package tzdata provides an embedded copy of the timezone database.

unicode

Package unicode provides data and functions to test some properties of Unicode code points.

utf16

Package utf16 implements encoding and decoding of UTF-16 sequences.

utf8

Package utf8 implements functions and constants to support text encoded in UTF-8.

unsafe

Package unsafe contains operations that step around the type safety of Go programs.