NAME
>   gold − The GNU ELF linker

SYNOPSIS
>   **ld.gold** [*options*] *file*...

OPTIONS
>   **−−help** Report usage information
>
>   **−v**, **−−version**
>   Report version information
>
>   **−V**   Report version and target information
>
>   **−−add−needed**
>   Not supported
>
>   **−−no−add−needed**
>   Do not copy DT_NEEDED tags from shared libraries (default)
>
>   **−−allow−multiple−definition** Allow multiple definitions of symbols
>
>   **−−no−allow−multiple−definition**
>   Do not allow multiple definitions (default)
>
>   **−−allow−shlib−undefined**
>   Allow unresolved references in shared libraries
>
>   **−−no−allow−shlib−undefined**
>   Do not allow unresolved references in shared libraries (default)
>
>   **−−apply−dynamic−relocs**
>   Apply link−time values for dynamic relocations (default)
>
>   **−−no−apply−dynamic−relocs**
>   (aarch64 only) Do not apply link−time values for dynamic relocations
>
>   **−−as−needed**
>   Use DT_NEEDED only for shared libraries that are used
>
>   **−−no−as−needed**
>   Use DT_NEEDED for all shared libraries (default)
>
>   **−assert** [ignored]
>   Ignored
>
>   **−b** [elf,binary], **−−format** [elf,binary]
>   Set input format
>
>   **−−be8** Output BE8 format image
>
>   **−−build−id** [=STYLE]
>   Generate build ID note
>
>   **−−build−id−chunk−size−for−treehash** SIZE
>   Chunk size for '−−build−id=tree'
>
>   **−−build−id−min−file−size−for−treehash** SIZE
>   Minimum output file size for '−−build−id=tree' to work differently than '−−build−id=sha1'
>
>   **−Bdynamic**   **−l** searches for shared libraries (default)
>
>   **−Bstatic**   **−l** does not search for shared libraries
>
>   **−dy**   alias for **−Bdynamic** (default)
>
>   **−dn**   alias for **−Bstatic**

−Bgroup
> Use group name lookup rules for shared library

−Bshareable
> Generate shared library (alias for **−G/−**shared)

−Bsymbolic
> Bind defined symbols locally

−Bsymbolic−functions
> Bind defined function symbols locally

−−check−sections
> Check segment addresses for overlaps (default)

−−no−check−sections
> Do not check segment addresses for overlaps

−−compress−debug−sections [none,zlib,zlib−gnu,zlib−gabi]
> Compress .debug_* sections in the output file

−−copy−dt−needed−entries
> Not supported

−−no−copy−dt−needed−entries Do not copy DT_NEEDED tags from shared libraries (default)

−−cref   Output cross reference table

−−no−cref
> Do not output cross reference table (default)

−−ctors−in−init−array
> Use DT_INIT_ARRAY for all constructors (default)

−−no−ctors−in−init−array
> Handle constructors as directed by compiler

−d, **−−define−common**
> Define common symbols

−−no−define−common
> Do not define common symbols in relocatable output (default)

−dc   Alias for **−d**

−dp   Alias for **−d**

−−debug [all,files,script,task][,...]
> Turn on debugging

−−defsym SYMBOL=EXPRESSION
> Define a symbol

−−demangle [=STYLE]
> Demangle C++ symbols in log messages

−−no−demangle
> Do not demangle C++ symbols in log messages

−−detect−odr−violations
> Look for violations of the C++ One Definition Rule

−−no−detect−odr−violations
> Do not look for violations of the C++ One Definition Rule (default)

−−dynamic−list−data
> Add data symbols to dynamic symbols

−−dynamic−list−cpp−new
> Add C++ operator new/delete to dynamic symbols

−−dynamic−list−cpp−typeinfo Add C++ typeinfo to dynamic symbols

−−dynamic−list FILE
> Read a list of dynamic symbols

−−emit−stub−syms
> (PowerPC only) Label linker stubs with a symbol (default)

−−no−emit−stub−syms
> (PowerPC only) Do not label linker stubs with a symbol

−e ADDRESS, **−−entry** ADDRESS Set program start address

−−eh−frame−hdr
> Create exception frame header

−−no−eh−frame−hdr
> Do not create exception frame header (default)

−−enable−new−dtags
> Enable use of DT_RUNPATH (default)

−−disable−new−dtags
> Disable use of DT_RUNPATH

−−no−enum−size−warning
> (ARM only) Do not warn about objects with incompatible enum sizes

−−exclude−libs lib,lib ...
> Exclude libraries from automatic export

−E, **−−export−dynamic**
> Export all dynamic symbols

−−no−export−dynamic
> Do not export all dynamic symbols (default)

−−export−dynamic−symbol SYMBOL
> Export SYMBOL to dynamic symbol table

−EB   Link big−endian objects.

−EL   Link little−endian objects.

−f SHLIB, **−−auxiliary** SHLIB Auxiliary filter for shared object symbol table

−F SHLIB, **−−filter** SHLIB
> Filter for shared object symbol table

−−fatal−warnings
> Treat warnings as errors

−−no−fatal−warnings
> Do not treat warnings as errors (default)

−fini SYMBOL
> Call SYMBOL at unload−time

−−fix−arm1176
> (ARM only) Fix binaries for ARM1176 erratum (default)

−−no−fix−arm1176
> (ARM only) Do not fix binaries for ARM1176 erratum

−−fix−cortex−a8
> (ARM only) Fix binaries for Cortex−A8 erratum

−−no−fix−cortex−a8
> (ARM only) Do not fix binaries for Cortex−A8 erratum (default)

−−fix−cortex−a53−843419
> (AArch64 only) Fix Cortex−A53 erratum 843419

−−no−fix−cortex−a53−843419
> (AArch64 only) Do not fix Cortex−A53 erratum 843419 (default)

−−fix−cortex−a53−835769
> (AArch64 only) Fix Cortex−A53 erratum 835769

−−no−fix−cortex−a53−835769
> (AArch64 only) Do not fix Cortex−A53 erratum 835769 (default)

−−fix−v4bx
> (ARM only) Rewrite BX rn as MOV pc, rn for ARMv4

−−fix−v4bx−interworking
> (ARM only) Rewrite BX rn branch to ARMv4 interworking veneer

−fuse−ld [gold,bfd]
> Ignored for GCC linker option compatibility

−g   Ignored

−−gc−sections
> Remove unused sections

−−no−gc−sections
> Don't remove unused sections (default)

−−gdb−index
> Generate .gdb_index section

−−no−gdb−index
> Do not generate .gdb_index section (default)

−−gnu−unique
> Enable STB_GNU_UNIQUE symbol binding (default)

−−no−gnu−unique
> Disable STB_GNU_UNIQUE symbol binding

−G, **−shared**
> Generate shared library

−h FILENAME, **−soname** FILENAME
> Set shared library name

−−hash−bucket−empty−fraction FRACTION
> Min fraction of empty buckets in dynamic hash

−−hash−style [sysv,gnu,both]
> Dynamic hash style

−i   Alias for **−r**

−−icf [none,all,safe]
> Identical Code Folding. '−−icf=safe' Folds ctors, dtors and functions whose pointers are definitely not taken

−−icf−iterations COUNT
> Number of iterations of ICF (default 3)

−−incremental
>   Do an incremental link if possible; otherwise, do a full link and prepare output for incremental linking

−−no−incremental
>   Do a full link (default)

−−incremental−full
>   Do a full link and prepare output for incremental linking

−−incremental−update
>   Do an incremental link; exit if not possible

−−incremental−base FILE
>   Set base file for incremental linking (default is output file)

−−incremental−changed
>   Assume files changed

−−incremental−unchanged
>   Assume files didn't change

−−incremental−unknown
>   Use timestamps to check files (default)

−−incremental−startup−unchanged
>   Assume startup files unchanged (files preceding this option)

−−incremental−patch PERCENT Amount of extra space to allocate for patches (default 10)

−init SYMBOL
>   Call SYMBOL at load−time

−I PROGRAM, **−−dynamic−linker** PROGRAM
>   Set dynamic linker path

−−just−symbols FILE
>   Read only symbol values from FILE

−−keep−files−mapped
>   Keep files mapped across passes (default)

−−no−keep−files−mapped
>   Release mapped files after each pass

−−keep−unique SYMBOL
>   Do not fold this symbol during ICF

−l LIBNAME, **−−library** LIBNAME
>   Search for library LIBNAME

−−ld−generated−unwind−info
>   Generate unwind information for PLT (default)

−−no−ld−generated−unwind−info
>   Do not generate unwind information for PLT

−L DIR, **−−library−path** DIR
>   Add directory to search path

−−long−plt
>   (ARM only) Generate long PLT entries

−−no−long−plt
>   (ARM only) Do not generate long PLT entries (default)

−m EMULATION
> Set GNU linker emulation; obsolete

−−map−whole−files
> Map whole files to memory (default)

−−no−map−whole−files
> Map relevant file parts to memory

−−merge−exidx−entries
> (ARM only) Merge exidx entries in debuginfo (default)

−−no−merge−exidx−entries
> (ARM only) Do not merge exidx entries in debuginfo

−−mmap−output−file
> Map the output file for writing (default)

−−no−mmap−output−file
> Do not map the output file for writing

−M, **−−print−map**
> Write map file on standard output

−Map MAPFILENAME
> Write map file

−n, **−−nmagic**
> Do not page align data

−N, **−−omagic**
> Do not page align data, do not make text readonly

−−no−omagic
> Page align data, make text readonly (default)

−−no−keep−memory
> Use less memory and more disk I/O (included only for compatibility with GNU ld)

−−no−undefined
> Report undefined symbols (even with **−−shared**)

−−noinhibit−exec
> Create an output file even if errors occur

−nostdlib
> Only search directories specified on the command line

−o FILE, **−−output** FILE
> Set output file name

−−oformat [binary]
> Set output format

−O LEVEL, **−optimize** LEVEL
> Optimize output file size

−−orphan−handling [place,discard,warn,error]
> Orphan section handling

−p   Ignored for ARM compatibility

−pie   Create a position independent executable

−no−pie
> Do not create a position independent executable (default)

−−pic−executable
> Create a position independent executable

−−no−pic−executable
> Do not create a position independent executable (default)

−−pic−veneer
> Force PIC sequences for ARM/Thumb interworking veneers

−no−pipeline−knowledge
> (ARM only) Ignore for backward compatibility (default)

−−plt−align [=P2ALIGN]
> (PowerPC only) Align PLT call stubs to fit cache lines

−−plt−localentry
> (PowerPC64 only) Optimize calls to ELFv2 localentry:0 functions

−−no−plt−localentry
> (PowerPC64 only) Don't optimize ELFv2 calls (default)

−−plt−static−chain
> (PowerPC64 only) PLT call stubs should load r11

−−no−plt−static−chain
> (PowerPC64 only) PLT call stubs should not load r11 (default)

−−plt−thread−safe
> (PowerPC64 only) PLT call stubs with load−load barrier

−−no−plt−thread−safe
> (PowerPC64 only) PLT call stubs without barrier (default)

−−plugin PLUGIN
> Load a plugin library

−−plugin−opt OPTION
> Pass an option to the plugin

−−posix−fallocate
> Use posix_fallocate to reserve space in the output file (default)

−−no−posix−fallocate
> Use fallocate or ftruncate to reserve space

−−preread−archive−symbols
> Preread archive symbols when multi−threaded

−−print−gc−sections
> List removed unused sections on stderr

−−no−print−gc−sections
> Do not list removed unused sections (default)

−−print−icf−sections
> List folded identical sections on stderr

−−no−print−icf−sections
> Do not list folded identical sections (default)

−−print−output−format
> Print default output format

−−print−symbol−counts FILENAME
> Print symbols defined and used for each input

−−push−state
>   Save the state of flags related to input files

−−pop−state
>   Restore the state of flags related to input files

−q, **−−emit−relocs**
>   Generate relocations in output

−Qy   Ignored for SVR4 compatibility

−r, **−relocatable**
>   Generate relocatable output

−−relax
>   Relax branches on certain targets

−−no−relax
>   Do not relax branches (default)

−−retain−symbols−file FILE
>   keep only symbols listed in this file

−−rosegment
>   Put read−only non−executable sections in their own segment

−−rosegment−gap OFFSET
>   Set offset between executable and read−only segments

−R DIR
>   Add DIR to runtime search path

−rpath DIR
>   Add DIR to runtime search path

−−rpath−link DIR
>   Add DIR to link time shared library search path

−s, **−−strip−all**
>   Strip all symbols

−S, **−−strip−debug**
>   Strip debugging information

−−strip−debug−non−line
>   Emit only debug line number information

−−strip−debug−gdb
>   Strip debug symbols that are unused by gdb (at least versions <= 7.4)

−−strip−lto−sections
>   Strip LTO intermediate code sections (default)

−−section−ordering−file FILENAME
>   Layout sections in the order specified

−−section−start SECTION=ADDRESS
>   Set address of section

−−secure−plt
>   (PowerPC only) Use new−style PLT (default)

−−sort−common [={ascending,descending}]
>   Sort common symbols by alignment

−−sort−section [none,name]
>   Sort sections by name. '−−no−text−reorder' will override '−−sort−section=name' for .text

−−spare−dynamic−tags COUNT
> Dynamic tag slots to reserve (default 5)

−−stub−group−size SIZE
> (ARM, PowerPC only) The maximum distance from instructions in a group of sections to their stubs. Negative values mean stubs are always after the group. 1 means use default size

−−stub−group−multi
> (PowerPC only) Allow a group of stubs to serve multiple output sections (default)

−−no−stub−group−multi
> (PowerPC only) Each output section has its own stubs

−−split−stack−adjust−size SIZE
> Stack size when **−fsplit−stack** function calls non−split

−static   Do not link against shared libraries

−−start−lib
> Start a library

−−end−lib
> End a library

−−stats   Print resource usage statistics

−−sysroot DIR
> Set target system root directory

−t, **−−trace**
> Print the name of each input file

−−target1−abs
> (ARM only) Force R_ARM_TARGET1 type to R_ARM_ABS32

−−target1−rel
> (ARM only) Force R_ARM_TARGET1 type to R_ARM_REL32

−−target2 [rel, abs, got−rel
> (ARM only) Set R_ARM_TARGET2 relocation type

−−text−reorder
> Enable text section reordering for GCC section names (default)

−−no−text−reorder
> Disable text section reordering for GCC section names

−−threads
> Run the linker multi−threaded

−−no−threads
> Do not run the linker multi−threaded (default)

−−thread−count COUNT
> Number of threads to use

−−thread−count−initial COUNT
> Number of threads to use in initial pass

−−thread−count−middle COUNT Number of threads to use in middle pass

−−thread−count−final COUNT
> Number of threads to use in final pass

−−tls−optimize
> (PowerPC/64 only) Optimize GD/LD/IE code to IE/LE (default)

−−no−tls−optimize
  (PowerPC/64 only) Don'''t try to optimize TLS accesses

−−tls−get−addr−optimize
  (PowerPC/64 only) Use a special __tls_get_addr call (default)

−−no−tls−get−addr−optimize
  (PowerPC/64 only) Don't use a special __tls_get_addr call

−−toc−optimize
  (PowerPC64 only) Optimize TOC code sequences (default)

−−no−toc−optimize
  (PowerPC64 only) Don't optimize TOC code sequences

−−toc−sort
  (PowerPC64 only) Sort TOC and GOT sections (default)

−−no−toc−sort
  (PowerPC64 only) Don't sort TOC and GOT sections

−T FILE, **−−script** FILE
  Read linker script

−Tbss ADDRESS
  Set the address of the bss segment

−Tdata ADDRESS
  Set the address of the data segment

−Ttext ADDRESS
  Set the address of the text segment

−Ttext−segment ADDRESS
  Set the address of the text segment

−Trodata−segment ADDRESS
  Set the address of the rodata segment

−u SYMBOL, **−−undefined** SYMBOL
  Create undefined reference to SYMBOL

−−unresolved−symbols ignore−all,report−all,ignore−in−object−files,ignore−in−shared−libs
  How to handle unresolved symbols

−−verbose
  Alias for **−−debug=***files*

−−version−script FILE
  Read version script

−−warn−common
  Warn about duplicate common symbols

−−no−warn−common
  Do not warn about duplicate common symbols (default)

−−warn−constructors
  Ignored

−−no−warn−constructors
  Ignored

−−warn−drop−version
  Warn when discarding version information

−−no−warn−drop−version
  Do not warn when discarding version information (default)

−−warn−execstack
  Warn if the stack is executable

−−no−warn−execstack
  Do not warn if the stack is executable (default)

−−no−warn−mismatch
  Don't warn about mismatched input files

−−warn−multiple−gp
  Ignored

−−warn−search−mismatch
  Warn when skipping an incompatible library (default)

−−no−warn−search−mismatch
  Don't warn when skipping an incompatible library

−−warn−shared−textrel
  Warn if text segment is not shareable

−−no−warn−shared−textrel
  Do not warn if text segment is not shareable (default)

−−warn−unresolved−symbols
  Report unresolved symbols as warnings

−−error−unresolved−symbols
  Report unresolved symbols as errors (default)

−z buildd
  Dummy z option

−−no−wchar−size−warning
  (ARM only) Do not warn about objects with incompatible wchar_t sizes

−−weak−unresolved−symbols
  Convert unresolved symbols to weak references

−−whole−archive
  Include all archive contents

−−no−whole−archive
  Include only needed archive contents (default)

−−wrap SYMBOL
  Use wrapper functions for SYMBOL

−x, **−−discard−all**
  Delete all local symbols

−X, **−−discard−locals**
  Delete all temporary local symbols

−−discard−none
  Keep all local symbols

−y SYMBOL, **−−trace−symbol** SYMBOL
  Trace references to symbol

−−undefined−version
  Allow unused version in script (default)

−−no−undefined−version
> Do not allow unused version in script

−Y PATH
> Default search path for Solaris compatibility

−(, **−−start−group**
> Start a library search group

−), **−−end−group**
> End a library search group

−z bndplt
> (x86−64 only) Generate a BND PLT for Intel MPX

−z nobndplt
> Generate a regular PLT (default)

−z combreloc
> Sort dynamic relocs (default)

−z nocombreloc
> Do not sort dynamic relocs

−z common−page−size=SIZE
> Set common page size to SIZE

−z defs   Report undefined symbols (even with **−−shared**)

−z execstack
> Mark output as requiring executable stack

−z global
> Make symbols in DSO available for subsequently loaded objects

−z initfirst
> Mark DSO to be initialized first at runtime

−z interpose
> Mark object to interpose all DSOs but executable

−z lazy   Mark object for lazy runtime binding (default)

−z loadfltr
> Mark object requiring immediate process

−z max−page−size=SIZE
> Set maximum page size to SIZE

−z muldefs
> Allow multiple definitions of symbols

−z nocopyreloc
> Do not create copy relocs

−z nodefaultlib
> Mark object not to use default search paths

−z nodelete
> Mark DSO non−deletable at runtime

−z nodlopen
> Mark DSO not available to dlopen

−z nodump
> Mark DSO not available to dldump

−z noexecstack
      Mark output as not requiring executable stack

−z now   Mark object for immediate function binding

−z origin
      Mark DSO to indicate that needs immediate $ORIGIN processing at runtime

−z relro
      Where possible mark variables read−only after relocation (default)

−z norelro
      Don't mark variables read−only after relocation

−z stack−size=SIZE
      Set PT_GNU_STACK segment p_memsz to SIZE

−z text   Do not permit relocations in read−only segments

−z notext
      Permit relocations in read−only segments (default)

−z textoff
      Permit relocations in read−only segments (default)

−z text−unlikely−segment
      Move .text.unlikely sections to a separate segment.

−z notext−unlikely−segment
      Do not move .text.unlikely sections to a separate segment. (default)

−z keep−text−section−prefix Keep .text.hot, .text.startup, .text.exit and .text.unlikely as separate sections in
      the final binary.

−z nokeep−text−section−prefix
      Merge all .text.* prefix sections. (default)

debian/tmp/usr/bin/ld.gold: supported targets: elf32−iamcu elf32−i386 elf32−i386−freebsd elf32−i386−nacl elf32−x86−64 elf32−x86−64−freebsd elf32−x86−64−nacl elf64−x86−64 elf64−x86−64−freebsd elf64−x86−64−nacl debian/tmp/usr/bin/ld.gold: supported emulations: elf_iamcu elf_i386 elf_i386_nacl elf32_x86_64 elf32_x86_64_nacl elf_x86_64 elf_x86_64_nacl

REPORTING BUGS
      Report bugs to <http://www.sourceware.org/bugzilla/>

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