



Linux Ubuntu 26.04 Manual Pages on command 'git-refs.1'

\$ man git-refs.1

GIT-REFS(1) Git Manual GIT-REFS(1)

NAME

git-refs - Low-level access to refs

SYNOPSIS

git refs migrate --ref-format=<format> [--no-reflog] [--dry-run]

git refs verify [--strict] [--verbose]

git refs list [--count=<count>] [--shell|--perl|--python|--tcl]
 [--sort=<key>...] [--format=<format>]
 [--include-root-refs] [--points-at=<object>]
 [--merged[=<object>]] [--no-merged[=<object>]]
 [--contains[=<object>]] [--no-contains[=<object>]]
 [--exclude=<pattern>...] [--start-after=<marker>]
 [--stdin | (<pattern>...)]

git refs exists <ref>

git refs optimize [--all] [--no-prune] [--auto] [--include <pattern>] [--exclude <pattern>]

DESCRIPTION

This command provides low-level access to refs.

COMMANDS

migrate

Migrate ref store between different formats.

verify

Verify reference database consistency.

list

List references in the repository with support for filtering, formatting, and sorting.

This subcommand is an alias for `git-for-each-ref(1)` and offers identical functionality.

exists

Check whether the given reference exists. Returns an exit code of 0 if it does, 2 if it is missing, and 1 in case looking up the reference failed with an error other than the reference being missing. This does not verify whether the reference resolves to an actual object.

optimize

Optimizes references to improve repository performance and reduce disk usage. This subcommand is an alias for `git-pack-refs(1)` and offers identical functionality.

OPTIONS

The following options are specific to `git refs migrate`:

`--ref-format=<format>`

The ref format to migrate the ref store to. Can be one of:

? files for loose files with packed-refs. This is the default.

? reftable for the reftable format. This format is experimental and its internals are subject to change.

`--dry-run`

Perform the migration, but do not modify the repository. The migrated refs will be written into a separate directory that can be inspected separately. The name of the directory will be reported on stdout. This can be used to double check that the migration works as expected before performing the actual migration.

`--reflog`, `--no-reflog`

Choose between migrating the reflog data to the new backend, and discarding them. The default is "`--reflog`", to migrate.

The following options are specific to `git refs verify`:

`--strict`

Enable stricter error checking. This will cause warnings to be reported as errors. See `git-fsck(1)`.

`--verbose`

When verifying the reference database consistency, be chatty.

The following options are specific to `git refs list`:

`<pattern>...`

If one or more <pattern> parameters are given, only refs are shown that match against at least one pattern, either using fnmatch(3) or literally, in the latter case matching completely or from the beginning up to a slash.

--stdin

The list of patterns is read from standard input instead of from the argument list.

--count=<count>

Stop after showing <count> refs.

--sort=<key>

Sort on the field name <key>. Prefix - to sort in descending order of the value. When unspecified, refname is used. You may use the --sort=<key> option multiple times, in which case the last key becomes the primary key.

--format[=<format>]

A string that interpolates %(fieldname) from a ref being shown and the object it points at. In addition, the string literal %% renders as % and %xx - where xx are hex digits - renders as the character with hex code xx. For example, %00 interpolates to \0 (NUL), %09 to \t (TAB), and %0a to \n (LF).

When unspecified, <format> defaults to %(objectname) SPC %(objecttype) TAB %(refname).

--color[=<when>]

Respect any colors specified in the --format option. The <when_ field must be one of always, never, or auto (if <when> is absent, behave as if always was given).

--shell, --perl, --python, --tcl

If given, strings that substitute %(fieldname) placeholders are quoted as string literals suitable for the specified host language. This is meant to produce a scriptlet that can directly be "eval"ed.

--points-at=<object>

Only list refs which points at the given object.

--merged[=<object>]

Only list refs whose tips are reachable from the specified commit (HEAD if not specified).

--no-merged[=<object>]

Only list refs whose tips are not reachable from <object>(HEAD if not specified).

--contains[=<object>]

Only list refs which contain <object>(HEAD if not specified).

`--no-contains[=<object>]`

Only list refs which don't contain <object> (HEAD if not specified).

`--ignore-case`

Sorting and filtering refs are case insensitive.

`--omit-empty`

Do not print a newline after formatted refs where the format expands to the empty string.

`--exclude=<excluded-pattern>`

If one or more `--exclude` options are given, only refs which do not match any <excluded-pattern> parameters are shown. Matching is done using the same rules as <pattern> above.

`--include-root-refs`

List root refs (HEAD and pseudorefs) apart from regular refs.

`--start-after=<marker>`

Allows paginating the output by skipping references up to and including the specified marker. When paging, it should be noted that references may be deleted, modified or added between invocations. Output will only yield those references which follow the marker lexicographically. Output begins from the first reference that would come after the marker alphabetically. Cannot be used with `--sort=<key>` or `--stdin` options, or the <pattern> argument(s) to limit the refs.

The following options are specific to `git refs optimize`:

`--all`

The command by default packs all tags and refs that are already packed, and leaves other refs alone. This is because branches are expected to be actively developed and packing their tips does not help performance. This option causes all refs to be packed as well, with the exception of hidden refs, broken refs, and symbolic refs. Useful for a repository with many branches of historical interests.

`--no-prune`

The command usually removes loose refs under `$GIT_DIR/refs` hierarchy after packing them. This option tells it not to.

`--auto`

Pack refs as needed depending on the current state of the ref database. The behavior depends on the ref format used by the repository and may change in the future.

? "files": Loose references are packed into the packed-refs file based on the ratio of loose references to the size of the packed-refs file. The bigger the packed-refs file, the more loose references need to exist before we repack.

? "reftable": Tables are compacted such that they form a geometric sequence. For two tables N and N+1, where N+1 is newer, this maintains the property that N is at least twice as big as N+1. Only tables that violate this property are compacted.

--include <pattern>

Pack refs based on a glob(7) pattern. Repetitions of this option accumulate inclusion patterns. If a ref is both included in --include and --exclude, --exclude takes precedence. Using --include will preclude all tags from being included by default. Symbolic refs and broken refs will never be packed. When used with --all, it will be a noop. Use --no-include to clear and reset the list of patterns.

--exclude <pattern>

Do not pack refs matching the given glob(7) pattern. Repetitions of this option accumulate exclusion patterns. Use --no-exclude to clear and reset the list of patterns. If a ref is already packed, including it with --exclude will not unpack it. When used with --all, pack only loose refs which do not match any of the provided --exclude patterns.

When used with --include, refs provided to --include, minus refs that are provided to --exclude will be packed.

KNOWN LIMITATIONS

The ref format migration has several known limitations in its current form:

- ? It is not possible to migrate repositories that have worktrees.
- ? There is no way to block concurrent writes to the repository during an ongoing migration. Concurrent writes can lead to an inconsistent migrated state. Users are expected to block writes on a higher level. If your repository is registered for scheduled maintenance, it is recommended to unregister it first with git-maintenance(1).

These limitations may eventually be lifted.

GIT

Part of the git(1) suite