git-commit-graph - Write and verify Git commit-graph files

> *git commit-graph verify* [--object-dir <dir>] [--shallow] [--
> [no-]progress]
> *git commit-graph write* <options> [--object-dir <dir>] [--
> [no-]progress]

Manage the serialized commit-graph file.

--object-dir

Use given directory for the location of packfiles and commit-graph file. This parameter
exists to specify the location of an alternate that only has the objects directory, not a
full `.git` directory. The commit-graph file is expected to be in
the `<dir>/info` directory and the packfiles are expected to be in `<dir>/pack`. If the
directory could not be made into an absolute path, or does not match any known object
directory, `git commit-graph ...` will exit with non-zero status.

--[no-]progress

Turn progress on/off explicitly. If neither is specified, progress is shown if standard error
is connected to a terminal.

write

W... ...commits found in packfiles.

W... ...te the new commit graph by walking objects
onl... ...t be combined with `--stdin-commits` or -
.) `-re`

With... ...the new commit graph by walking
comm... ...in as a list of OIDs in hex, one OID per
line. OI... ...ectly, or by peeling tags) are silently
ignored. C... ...generate an error. (Cannot be
combined...

already in the commit-graph are added in a new "tip" file. This file is merged with the existing file if the following merge conditions are met:

- If `--split=no-merge` is specified, a merge is never performed, and the remaining options are ignored. `--split=replace` overwrites the existing chain with a new one. A bare `--split` defers to the remaining options. (Note that merging a chain of commit graphs replaces the existing chain with a length-1 chain where the first and only incremental holds the entire graph).

- If `--size-multiple=<X>` is not specified, let X equal 2. If the new tip file would have N commits and the previous tip has M commits and X times N is greater than M, instead merge the two files into a single file.

- If `--max-commits=<M>` is specified with M a positive integer, and the new tip file would have more than M commits, then instead merge the new tip with the previous tip.

  Finally, if `--expire-time=<datetime>` is not specified, let `datetime` be the current time. After writing the split commit-graph, delete all unused commit-graph whose modified times are older than `datetime`.

verify

Read the commit-graph file and verify its contents against the object database. Used to check for corrupted data.

With the `--shallow` option, only check the tip commit-graph file in a chain of split commit-graphs.

- Write a commit-graph file for the packed commits in your local `.git` directory.

  ```
  $ git commit-graph write
  ```

- Write a commit-graph file, extending the current commit-graph file using commits in `<pack-index>`.

  ```
  $ echo <pack-index> | git commit-graph write --stdin-packs
  ```

- Write a commit-graph file containing all reachable commits.

```
$ git show-ref -s | git commit-graph write --stdin-commits
```

- Write a commit-graph file containing all commits in the current commit-graph file along with those reachable from HEAD .

```
$ git rev-parse HEAD | git commit-graph write --stdin-commits --append
```