

# Git revisions cheatsheet

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A list of revision specifications you can use with `git log` and many other Git commands. Summarized from `gitrevisions(7)` man page.

## Example usages

|   |                                       |
|---|---------------------------------------|
| <code>git log master...develop</code>   | inspect differences in branches       |
| <code>git rebase -i HEAD~3</code>   | rebase last 3 commits                 |
| <code>git reset --hard HEAD@{2}</code>  | undo last operation that changed HEAD |
| <code>git checkout v2^{}</code>   | checkout the v2 tag (not v2 branch)   |
| The 3rd argument in each of these commands is a gitrevision. These gitrevisions can be passed to many Git commands. |                                       |

## Common git revisions

|   |   |
|---|---|
| <code>git show dae68e1</code>   | sha1  |
| <code>git show HEAD</code>  | reference                                   |
| <code>git show v1.0.0</code>  | tag   |
| <code>git show master</code>  | local branch                                |
| <code>git show origin/master</code>   | remote branch                               |
| <code>git show master~2</code>  | 2 commits back from master                  |
| <code>git show master..fix</code>   | reachable from fix but not master           |
| <code>git show master...fix</code>  | reachable from fix and master, but not both |
| These are just the common ones, there's a lot more below! (These work in many other commands, not just <code>git show</code> .) |   |

## # Reference

### Commits

|                                   |      |
|-----------------------------------|------|
| <code>git checkout dae68e1</code> | sha1 |
|-----------------------------------|------|

### Searching back

|  |                     |
|--|---------------------|
| <code>git checkout master@{yesterday}</code> | also 1 day ago, etc |
|--|---------------------|

### References

|                                  |           |
|----------------------------------|-----------|
| <code>git checkout HEAD</code>   | reference |
| <code>git checkout master</code> | branch    |
| <code>git checkout v1.0.0</code> | tag       |

|   |                                      |
|---|--------------------------------------|
| <code>git checkout master@{2}</code>    | 2nd prior value                      |
| <code>git checkout master@{push}</code> | where master would push to           |
| <code>git checkout master^</code>       | parent commit                        |
| <code>git checkout master^2</code>      | 2nd parent, eg, what it merged       |
| <code>git checkout master~5</code>      | 5 parents back                       |
| <code>git checkout master^0</code>      | this commit; disambiguates from tags |
| <code>git checkout v0.99.8^{tag}</code> | can be commit, tag, tree, object     |
| <code>git checkout v0.99.8^{}</code>    | defaults to {tag}                    |
| <code>git checkout ":/fix bug"</code>   | searches commit messages             |

# Ranges

Ranges

|                                   |   |
|-----------------------------------|---|
| <code>git log master</code>       | reachable parents from master               |
| <code>git log ^master</code>      | exclude reachable parents from master       |
| <code>git log master..fix</code>  | reachable from fix but not master           |
| <code>git log master...fix</code> | reachable from fix and master, but not both |
| <code>git log HEAD^@</code>       | parents of HEAD                             |
| <code>git log HEAD^!</code>       | HEAD, then excluding parents's ancestors    |
| <code>git log HEAD^{:/fix}</code> | search previous HEADs matching criteria     |

# References

|  |
|--|
| <a href="#">Git Tools - Revision Selection</a> (git-scm.com) |
| <a href="#">gitrevisions(7)</a> (kernel.org)                 |

|   |                                 |
|---|---------------------------------|
| <code>git checkout origin/master</code> | aka, refs/remotes/origin/master |
| <code>git checkout heads/master</code>  | aka, refs/heads/master          |
| <code>HEAD:README</code>                | ...                             |
| <code>0:README</code>                   | (0 to 3) ...                    |

Other

Ranges illustration

|                                   |             |
|-----------------------------------|-------------|
|                                   |             |
| <code>git log master..fix</code>  | BCD         |
| <code>git log master...fix</code> | BCD and EFG |