

# git-jcheck

## Description

git-jcheck is a Git port of the Mercurial extension [jcheck](#). git-jcheck validates that one or more Git commits follow an OpenJDK project's conventions. Example of such a conventions include:

- Tab characters should not be present in the source code
- The commit message should follow the [prescribed format](#)
- Executable files and symbolic links should not be present

Different OpenJDK project have different conventions. The conventions are described by the file `.jcheck/conf` in the project's source code repository. As an example, the OpenJDK project [Skara](#) has the following in its `.jcheck/conf` file:

```
[checks]
error=author,reviewers,whitespace

[checks "whitespace"]
files=.*\.java$|.*\.yml$|.*\.gradle$|.*\.txt$

[checks "reviewers"]
reviewers=1
```

The above configuration shows that for OpenJDK project [Skara](#) git-jcheck will verify that commits have an author with full name and e-mail, is reviewed by at least one [Reviewer from project Skara](#) and that files with the suffixes `.java`, `.yml`, `.gradle` and `.txt` do not contain tabs, carriage returns or trailing whitespace.

Since the `.jcheck/conf` file is versioned every commit is checked according to the conventions described in the `.jcheck/conf` file *in that commit*. This means checks can be added and/or removed and old commits will still be checked correctly. If no `.jcheck/file` is present in a commit then git-jcheck exits with status code 0.

## Usage

```
$ git jcheck -h
usage: git jcheck [options]
    -r, --rev REV          Check the specified revision or range (default: HEAD)
    --census FILE         Use the specified census (default: https://openjdk.java.net/census.xml)
    --ignore CHECKS      Ignore errors from checks with the given name
    --setup-pre-push-hook Set up a pre-push hook that runs jcheck on commits to be pushed
    -m, --mercurial       Deprecated: force use of mercurial
    --verbose             Turn on verbose output
    --debug              Turn on debugging output
    --lax                Check comments, tags and whitespace laxly
    -s, --strict         Check everything
    -v, --version        Print the version of this tool
    -h, --help           Show this help text

    --conf-staged        Use staged .jcheck/conf
    --conf-working-tree Use .jcheck/conf in current working tree
    --staged            Check staged changes as if they were committed
    --working-tree      Check changes in working tree as if they were
committed
```

## Examples

Run git-jcheck on the HEAD commit:

```
$ git jcheck
```

Run git-jcheck on all commits between master and HEAD:

```
$ git jcheck -r master..HEAD
```

Run `git-jcheck` on all commits between `master` and `HEAD` and ignore errors about branches:

```
$ git jcheck -r master..HEAD --ignore=branches
```

*Note:* `git-jcheck` always prints the name of the check when showing errors. Use these check names as arguments to `--ignore`.

Download the OpenJDK census database locally and tell `git-jcheck` to use it when checking commits between `master` and `HEAD`:

```
$ curl -O https://openjdk.java.net/census.xml
$ git jcheck -r master..HEAD --census=$PWD/census.xml
```

*Note:* when explicitly specifying a census file then `git-jcheck` will work offline.

Setup a [pre-push hook](#) that will run `git-jcheck` on commits that are about to be pushed:

```
$ git jcheck --setup-pre-push-hook
```

*Note:* if `git-jcheck` discovers any errors then the push will be aborted.

## Configuration

All options to `git-jcheck` can be configured via Git's configuration files. For example, the following will always use a local version of census stored in `~/jcheck/census.xml` when running `git-jcheck`:

```
$ git config --global jcheck.census "$HOME/.jcheck/census.xml"
```

If you want to always ignore the "branches" check then just configure "jcheck.ignore" as in the following example:

```
$ git config --global jcheck.ignore branches
```

## Source

See [GitJCheck.java](#).