

ITK Git Reference

One-time Global Setup

SETUP USER	<code>git config --global user.name "Jane Doe"</code>	Use your full name.
INFORMATION	<code>git config --global user.email "jane@doe.org"</code>	
	<code>git config --global color.ui auto</code>	Enable color output in Git (optional).

Create and Configure Your Repository

CLONE	<code>git clone https://github.com/InsightSoftwareConsortium/ITK</code>	
REPOSITORY	<code>cd ITK</code>	
CONFIGURE	<code>./Utilities/SetupForDevelopment.sh</code>	Follow prompts, sets up local hooks, remotes, push URLs etc.

Topic Branch Lifecycle

UPDATE	<code>git status</code> <code>git checkout main</code> <code>git pull --rebase upstream main</code>	Review local modifications, delete, stash or commit them.
NEW TOPIC BRANCH	<code>git checkout -b my-topic upstream/main</code>	Create branch off main.
WRITE CODE	<code>vim MyExistingFile.cxx MyNewFile.cxx</code>	Use your favorite editor.
NEW COMMIT	<code>git add MyExistingFile.cxx MyNewFile.cxx</code> <code>git commit</code>	Stage changes to existing and new files. Commit changes locally.
AMEND COMMIT	<code>vim MyExistingFile.cxx</code> <code>git add MyExistingFile.cxx</code> <code>git commit --amend</code>	Edit the file. Stage changes. Amend previous commit locally.
ADD TESTING DATA	<code>git data-upload DataFile.png</code> # Add DATA{DataFile.png} to CMakeLists.txt <code>git add -- DataFile.png.cid CMakeLists.txt</code> <code>git commit --amend</code>	Upload a testing data input or baseline image to content-link-upload.itk.org . Reference the content link in the CMake configuration. Add the content link and updated CMake configuration.
SUBMIT FOR REVIEW	<code>git prepush</code> <code>git review-push</code>	Check what will be pushed to GitHub. Push the topic to GitHub for review. Enter the URL returned in your browser, and review and open the pull request.
RESPOND TO REVIEW	<code>git rebase -i HEAD~3</code> <code>git prepush</code> <code>git review-push --force</code>	Modify local commits (3 back here). Check what will be pushed to Gerrit. Push the updated topic to Gerrit.
DELETE TOPIC	<code>git fetch upstream</code> <code>git branch -d my-topic</code>	Fetch the latest changes from origin. Delete topic, fails if not merged.

Review

PUSH FOR REVIEW	<code>git review-push</code>	Push the current topic branch for review.
REVIEW PULL REQUESTS	<code>git pr <pull-request-number></code>	Fetch and check out by number a pull request locally for review.
CLEAN PULL REQUESTS	<code>git pr-clean</code>	Clean locally fetched pull requests.

General Guidelines

COMMIT MESSAGE	<code><short-description></code> <code><long description></code> <code>Issue #1234</code>	Should be less than 78 characters. Blank line after short description. Could be several paragraphs. GitHub issue number, if applicable.
TOPIC NAMING	<code>summary-of-topic</code>	Lower case, separated by dashes.

For more information, see git-scm.com.