

Qt 创建者手册 &gt; 使用吉特

# 使用吉特

Git是一个快速分散的版本控制系统。Git 可用于 Windows、Linux 和 macOS。

您可以将 [Gerrit](#) 代码审查工具用于使用 Git 的项目。

## 将 Git 用于视窗

如果将 Git 配置为仅与一起使用，并使用 SSH 授权，则 Git 会在环境指向的目录中查找 SSH 密钥。该变量始终由设置。git bashHOMEgit bash

但是，该变量通常不在 Windows 命令提示符中设置。当您从 Windows 命令提示符运行 Git 时，它会在其安装目录中查找 SSH 密钥，因此授权将失败。

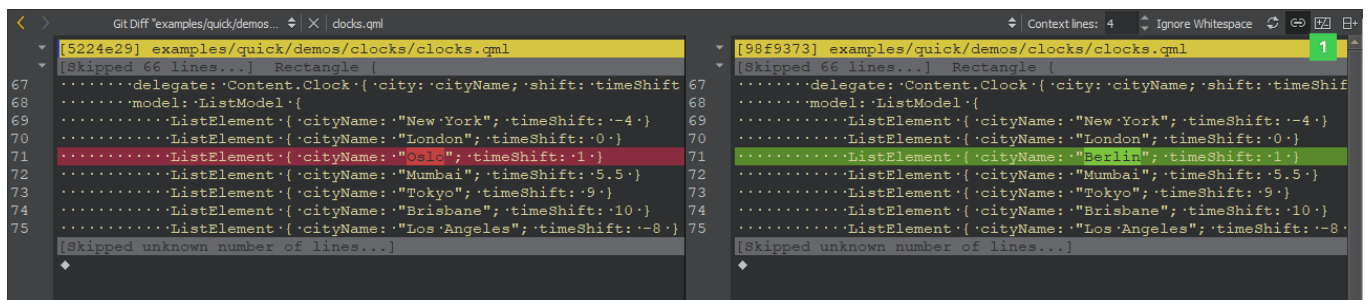
您可以从Qt创建者设置环境变量。选择“**编辑>首选项**”> **Git >版本控制**”，然后选中“**设置“HOME”环境变量**”复选框。设置为当 Git 可执行文件运行时，并且授权的工作方式与 .HOMEHOME%HOMEDRIVE%%HOMEPATH%git bash

## 使用当前文件

若要使用当前文件，请选择“**工具**”> Git 中的命令> **当前文件**”。某些命令还可用于包含该文件的项目或本地存储库。

## 查看 Git 比较

您可以**比较**当前文件或项目，以将其与存储库中存储的最新版本进行比较并显示差异。若要在只读编辑器中显示差异，请选择“**差异**”。如果文件是可访问的，您可以双击选定的差异块，Qt Creator将打开一个编辑器，显示该文件，滚动到有问题的行。



默认情况下，差异在**差异编辑器**中并排显示。要改用统一比较视图，请从工具栏中选择“**切换到统一比较编辑器**” (1) 选项。在这两个视图中，都可以使用上下文菜单命令来应用、还原、暂存和取消暂存块或选定行，以及将块发送到代码粘贴服务。

若要显示文件的版本控制历史记录，请选择“**日志**”。日志输出包含日期、提交消息和提交标识符。单击提交标识符以查看提交详细信息。

```

1 commit 000e26a4d5ab66b532146e66333e1c72859bdc52 (origin/tqtc/lts-5.15, origin/HEAD)
2 Author:
3 Date: Mon, 24 Jan 2022 16:28:44 +0000
4
5 --- Update Qt Quick GS tutorial
6 ---
7 --- Update information about and screenshots of Qt Creator
8 --- New Project wizard template.
9 --- Use the main.cpp file generated by Qt Creator 7.0
10 ---
11 --- Fixes: QTBUG-99847

```

右键单击提交标识符将显示一个上下文菜单，您可以在其中对提交应用操作，例如视图注释或挑选或还原提交。有关详细信息，请参阅[使用分支](#)。

若要切换差异视图，请选择“**比较**”。若要使用耐心算法计算差异，请选择“**耐心**”。若要仅显示文本更改，请选择“**忽略空格**”。

若要按提交消息中的文本、添加或删除的字符串或作者筛选日志条目，请选择“**筛选**”。在“**按邮件筛选**”、“**按内容筛选**”或“**按作者筛选**”字段中输入搜索提示。选择“**区分大小写**”以使筛选考虑大小写。

若要在合并提交时仅关注第一个父项，请选择“**第一个父项**”。

若要在日志的文本表示形式和可视表示形式之间切换，请选择“**图形**”。

若要切换日志条目不同部分的颜色编码，请选择“**颜色**”。

若要同时显示文件以前名称的日志，请选择“**关注**”。

选择“ (**重新加载**)”以重新扫描文件。

To display a description of the change including the diff in the **Git Show** view, select **Describe Change** in the context menu.

```

commit 3288c524435df65c470a7af6f406348231f07253 (HEAD -> master)
Author: Leena Miettinen <riitta-leena.miettinen@qt.io>, Thu Apr 9 13:06:05 2020 +0200 (36 minutes ago)
Committer: Leena Miettinen <riitta-leena.miettinen@qt.io>, Thu Apr 9 13:06:05 2020 +0200 (36 minutes ago)
Branches: <Expand>

TextFinder example
[0000000] .gitignore
1 [fab7372] .gitignore
2 # This file is used to ignore files which are generated
3 #
4 ---
5 *~
6 *.autosave
7 *.a
8 *.core
9 *.moc
10 *.o
11 *.obj


```

## Viewing Annotations

To view annotations, select **Blame**. The view displays the lines of the file prepended by the commit identifier they originate from. Clicking on the commit identifier shows a detailed description of the change.

To show the annotation of a previous version, right-click on the commit identifier and select **Blame Parent Revision**. This allows you to navigate through the history of the file and obtain previous versions of it.

The other actions in the context menu enable you to apply actions to the commit, such as cherry-pick, checkout, or

To rescan the files, click  (**Reload**).

## Staging Changes

To mark a new or modified file for committing it to the repository, select **Stage File for Commit**. To undo this function, select **Unstage File from Commit**.

## Resetting Changes

Git has an index that is used to stage changes. The index is committed on the next commit. Git allows you to revert back to the state of the last commit as well as to the state staged in the index.

To revert all changes and reset the current file to the state of the index, select **Undo Unstaged Changes**.

To return the current file to the state it was in right after the last commit, select **Undo Uncommitted Changes**. This reverts all changes, discarding the index.

## Working with the Current Project

To work with the current project, select the commands in **Tools > Git > Current Project**. The **Diff Project** and **Log Project** commands, which are also available for the current file, are described above.

## Cleaning Projects

To clean the working directory, select **Build Project > Clean**. All files that are not under version control are displayed in the **Clean Repository** dialog. Ignored files are deselected by default. Select the files to delete and click **Delete**.

## Working with Local Repositories

To work with the local repository, select the commands in **Tools > Git > Local Repository**. The commands that are also available for the current file or project are described above.

## Viewing Reference Log

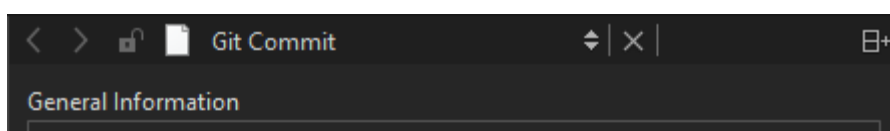
Reference logs record when the tips of branches and other references were updated in the local repository. To view the reference log, select **Reflog**.

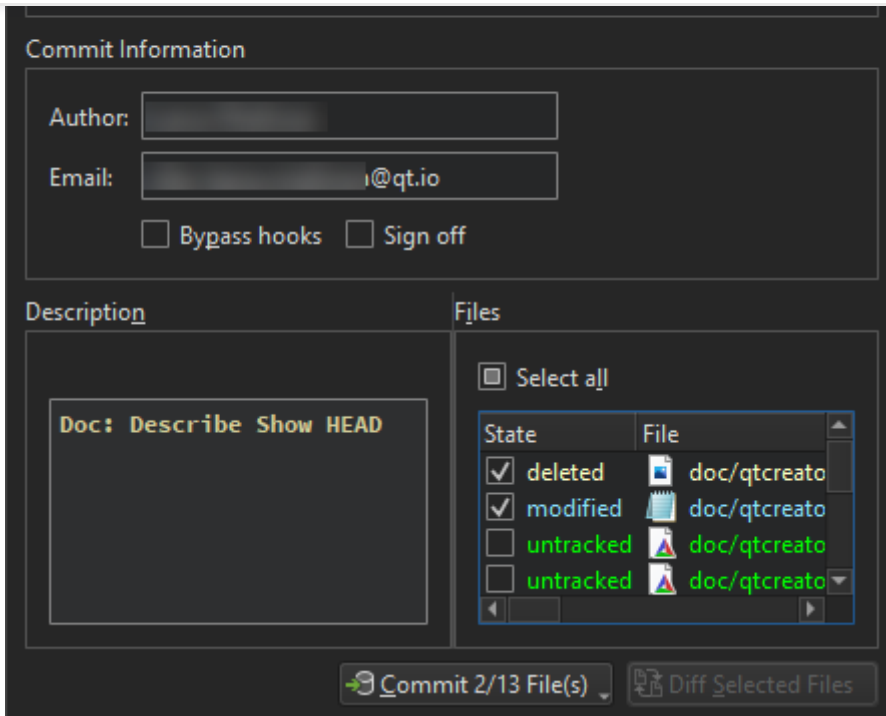
## Viewing Git Status

To view the status of the repository in **Version Control**, select **Status**. The context menu contains additional actions, such as selecting and clearing all entries, copying text, and opening files.

## Committing Changes to Git

To submit your changes to Git, select **Commit**. Qt Creator displays a commit page containing a text editor where you can enter your commit message and a checkable list of modified files to be included.





**General Information** displays the names of the repository and branch for the commit.

In **Commit Information**, you can edit information about the author of the commit. To bypass re-commit and commit message hooks, select **Bypass hooks**. If signoffs are used for your project, select **Sign off** to add a *signed-off-by* trailer by the author at the end of the commit log message.

In **Description**, edit the commit message.

In **Files**, select the files to include in the commit.

When you have finished filling out the commit page information, click on **Commit** to start committing.

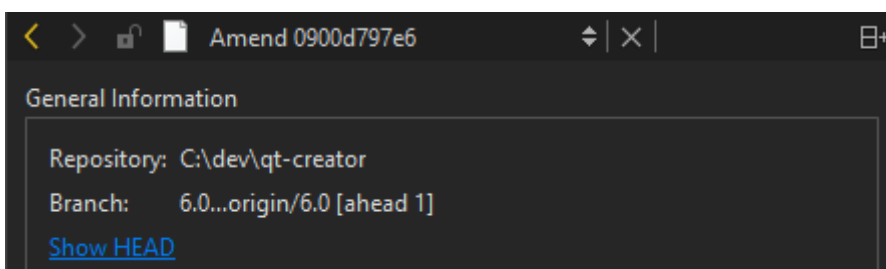
The **Diff Selected Files** button opens a **diff view** of the files selected in the file list. Select **Stage Chunk** in the context menu to stage a chunk or **Stage Selection** to stage the selected lines.

To unstage chunks or selected lines, select **Unstage Chunk** or **Unstage Selection** in the context menu. To revert the changes in a chunk, select **Revert Chunk**.

The commit page is just another editor, and therefore you return to it when you close the diff view. You can also switch to an open diff view by selecting it in the **Open Documents** view in the sidebar.

## Amending Commits

To apply latest changes to the last commit, select **Tools > Git > Local Repository > Amend Last Commit**.



To view the commit in its current form, before amending, select **Show HEAD**.

To view a diff of the changes in the selected files, select **Diff Selected Files**.

To amend an earlier commit in a series of related commits, select **Tools > Git > Local Repository > Fixup Previous Commit**. This operation is done using interactive rebase. In case of conflicts, a merge tool is suggested.

## Resetting Local Repository

To reset changes, select **Reset**. This opens a dialog where you can select the commit to reset the working directory to. This is useful after applying patches for review, for example. You can choose between a **Soft** reset that does not touch the index file nor the working tree at all, a **Hard** reset that discards all changes to tracked files in the working tree, and a **Mixed** reset that resets HEAD and the index (nothing remains staged) without touching the working directory.

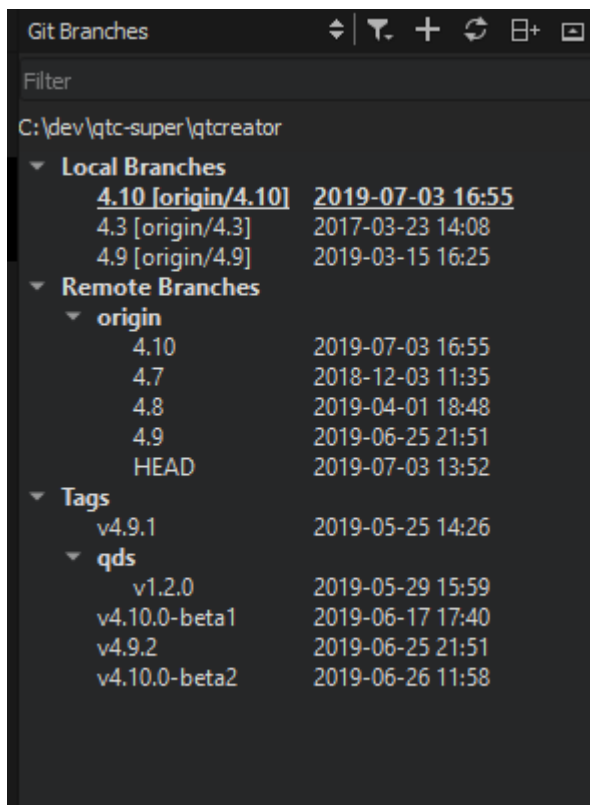
To recover removed files, select **Recover Deleted Files**.

To change a series of commits in the local repository, select **Interactive Rebase**. You can reorder or discard commits, squash them into a single commit, or edit the commit messages.

If you already pushed the local changes to a remote, Qt Creator refuses the interactive rebase because the local commits are missing. To start the interactive rebase from the change log, select **Branches > Log**. Select the change, and then select **> Interactive Rebase from Change** in the context menu.

## Working with Branches

To work with Git branches, select **Branches**. The checked out branch is shown in bold and underlined in the list of branches in the **Git Branches** sidebar view.



Old entries and tags are filtered out of the list of branches by default. To include them, select **Filter Tree**, and then select **Include Old Entries** and **Include Tags**.

To add a tag to a change in the change log, select **Branches > Log**. Select the change, and then select **Add Tag for Change** in the context menu.

If you checked out a specific commit, the list of branches displays a *Detached HEAD* entry.

To refresh the list of branches, click  (**Refresh**).

The following operations are supported in the context-menu for a branch:

Menu Item	Description
<b>Add</b>	Create new tracking and non-tracking branches.
<b>Remove</b>	Remove a local branch. You cannot delete remote branches.
<b>Rename</b>	Rename a local branch or a tag. You cannot rename remote branches.
<b>Checkout</b>	Check out the selected branch and make it current. You can stash changes you have made to tracked files.
<b>Diff</b>	Show the differences between the selected and the current branch.
<b>Log</b>	Show the changes in a branch.
<b>Reset</b>	Reset the active branch to the selected branch. You can choose between a <b>Hard</b> , <b>Mixed</b> , and <b>Soft</b> reset. For more information, see <a href="#">Resetting Local Repository</a> .
<b>Merge</b>	Join the development histories in two branches together. If the commit you are merging can be reached by following the first commit's history, there is no divergent work to merge together. To allow Git to move the branch pointer forward, select <b>Merge (Fast-Forward)</b> . If you do not want to fast-forward the branch, select <b>Merge (No Fast-Forward)</b> .
<b>Rebase</b>	Copy local commits to the updated upstream head.
<b>Cherry Pick</b>	Cherry pick the top commit from the selected branch.
<b>Track</b>	Set the current branch to track the selected one.
<b>Push</b>	Push the committed changes to the selected remote branch.

The following additional context-menu operations are available for **Remote Branches**. The context-menu can be opened on **Remote Branches** or on a specific remote repository.

Menu Item	Description
<b>Fetch</b>	Fetch all the branches and changes information from a specific remote repository, or from all remotes if applied to <b>Remote Branches</b> .
<b>Manage Remotes</b>	Open the <b>Remotes</b> dialog.

## Configuring Merge Tools

Only graphical merge tools are supported. You can configure the merge tool to use on the command line. For example, to use the **KDiff3** merge tool, enter the following command:

```
git config --global merge.tool kdiff3
```

## Applying Patches

To select the patch file to apply from the file system, select **Apply from File**.

## Using Stashes

With Git, you can put your current set of changes onto a virtual shelf called a *stash*. Stashes are useful, for example, to put aside a set of changes to work on higher priority tasks or to pull in new changes from another repository.

To stash all local changes, select **Stash > Stash**. The working copy is reset to the state it had after the last commit. To save the current state of your unstaged files and reset the repository to its staged state, select **Stash Unstaged Files**.

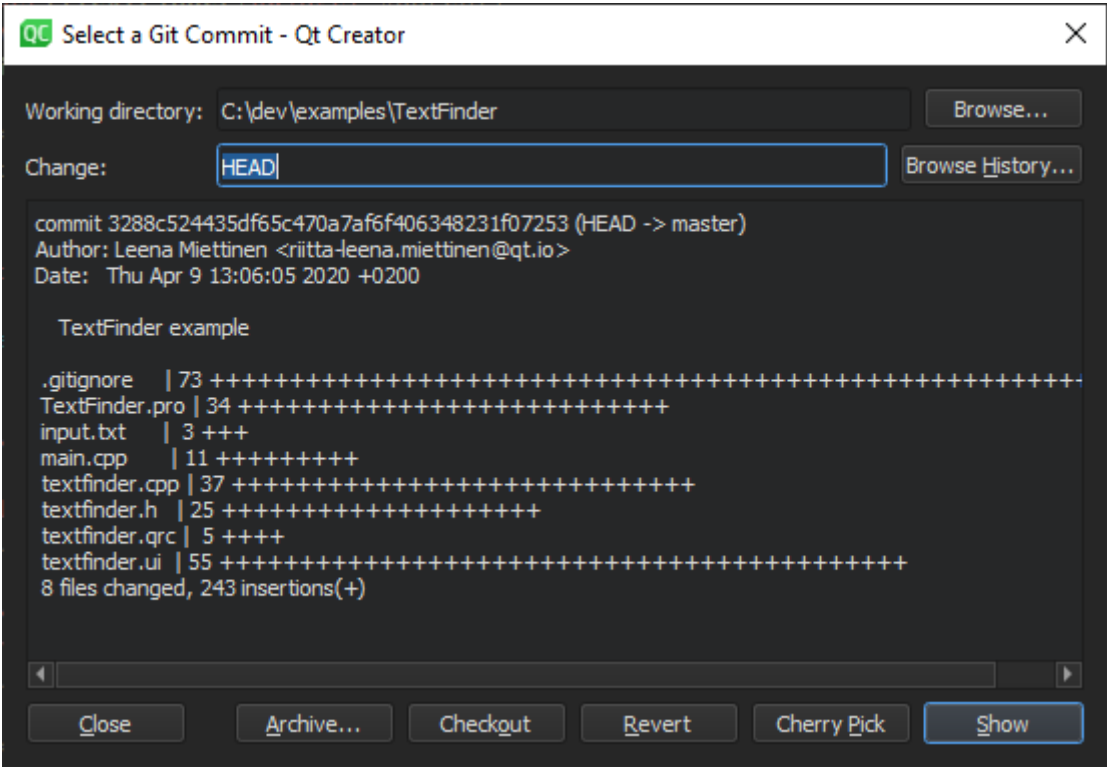
To display a dialog that shows all known stashes with options to restore, display or delete them, select **Stashes**.

To save a snapshot of your current work under a name for later reference, select **Take Snapshot**. The working copy is unchanged. For example, if you want to try something and find out later that it does not work, you can discard the changes and return to the state of the snapshot.

To remove a single stashed state from the stash list and apply it on top of the current working tree state, select **Stash Pop**.

## Applying Actions to Commits

To browse a directory or the commit history and to apply actions on the commits, select **Tools > Git > Actions on Commits**.



You can apply the following actions on commits:

Menu Item	Description
Archive	Package the commit as a ZIP or tarball.
Checkout	Check out the change in a headless state.

Show

Show the commit in the diff editor.

## Initializing Git Repositories

To start controlling a project directory that is currently not under version control, select **Tools > Git > Create Repository**. Qt Creator creates a new subdirectory named `.git` that contains all the necessary repository files. However, nothing in the project is tracked yet, so you will need to create an initial commit to start tracking the project files.

## Working with Remote Repositories

To work with remote repositories, select the commands in **Tools > Git > Remote Repository**.

To fetch all the branches and change information from a remote repository, select **Fetch**.

To pull changes from the remote repository, select **Pull**. If there are locally modified files, you are prompted to stash the changes. Select **Edit > Preferences > Version Control > Git** and then select the **Pull with rebase** check box to perform a rebase operation while pulling.

To push committed changes to the remote repository, select **Push**. If the local branch does not have an upstream branch in the remote repository, Qt Creator prompts you to create it and set it as upstream.

## Managing Remote Repositories

To manage remote repositories available in Git, select **Tools > Git > Remote Repository > Manage Remotes**. Double-click the names and URLs of the remote repositories to edit them.

The following operations are supported:

Menu Item	Description
Refresh	Refresh the list of remote repositories.
Add	Add a new remote repository.
Fetch	Fetch all the branches and change information from a remote repository.
Push	Push committed changes to the remote repository.
Remove	Remove a remote repository.

## Using Git with Subversion

You can use Git as a client for a Subversion server. To fetch changes from a Subversion repository to a Git repository, select **Tools > Git > Remote Repository > Subversion > Fetch**.

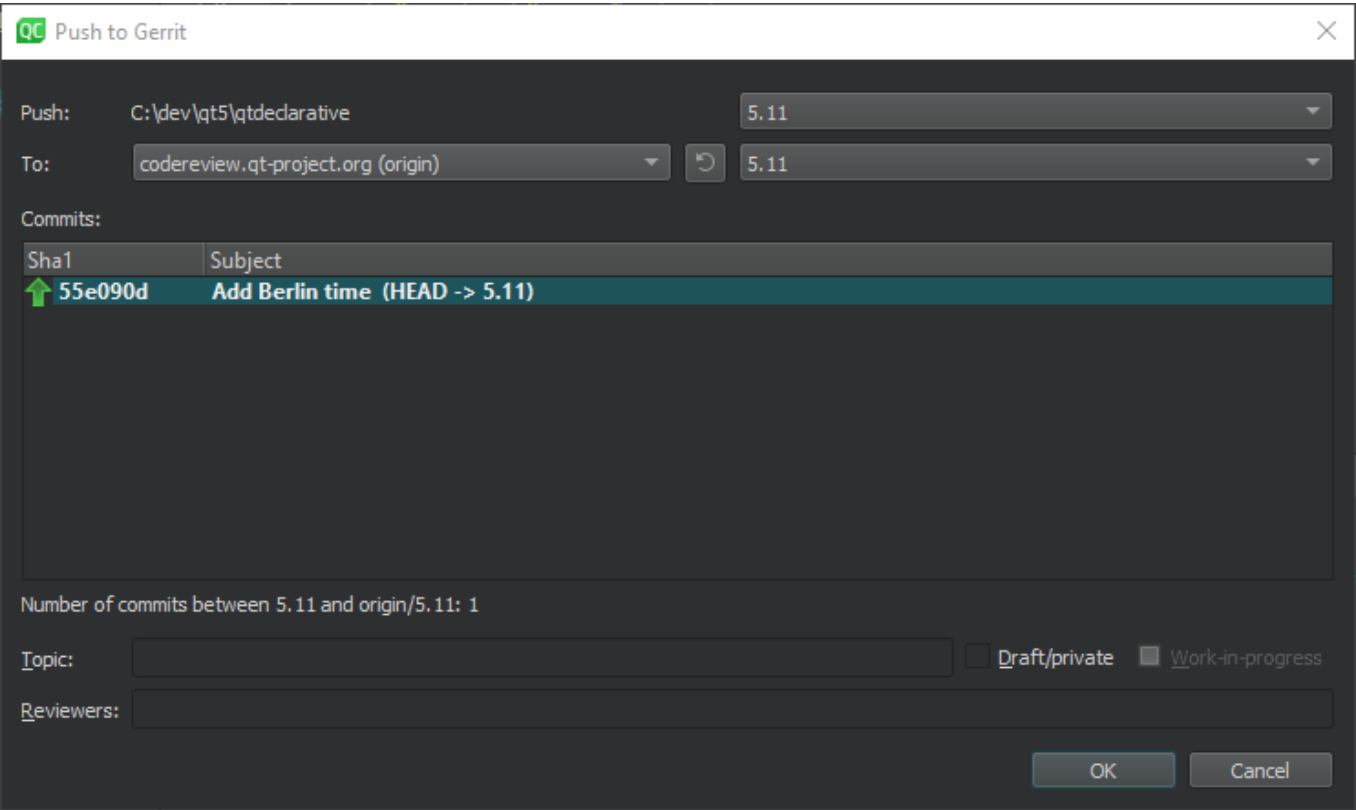
To view the Git Subversion log, select **Log**.

To publish the commits from the current branch to the Subversion server, select **DCommit**. This will create a revision in Subversion for every local Git commit. Afterwards, the branch is rebased or reset (depending on whether or not there is a diff between Subversion and head).

## Reviewing Code with Gerrit

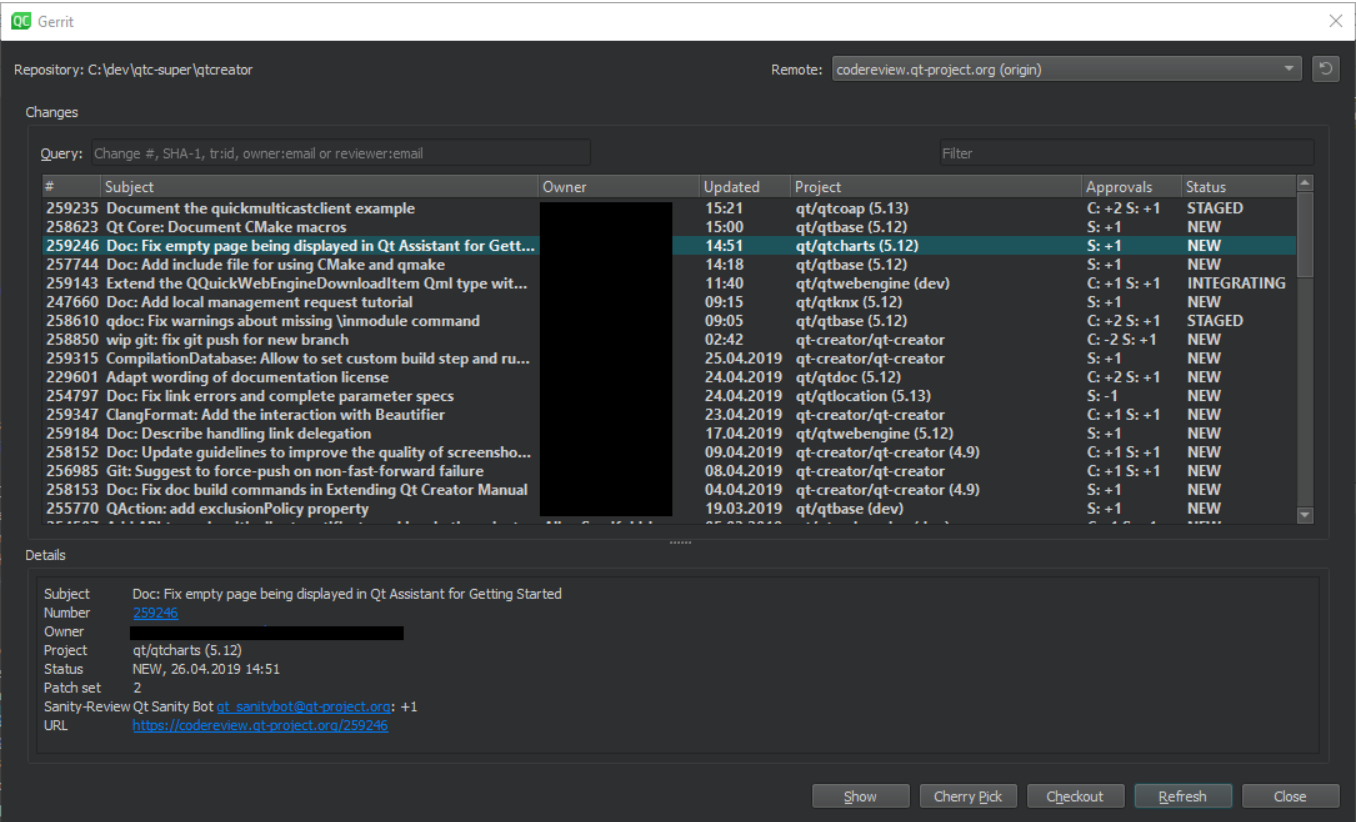


To push committed changes to Gerrit, select **Tools > Git > Remote Repository > Push to Gerrit**.



Select the **Draft/private** check box to push changes that are only visible to you and the reviewers. If you are using Gerrit 2.15 or later, you can select the **Work-in-progress** check box to push changes that do not generate email notifications.

To view the same information about each change as in the Gerrit web interface, select **Tools > Git > Remote Repository > Gerrit**.



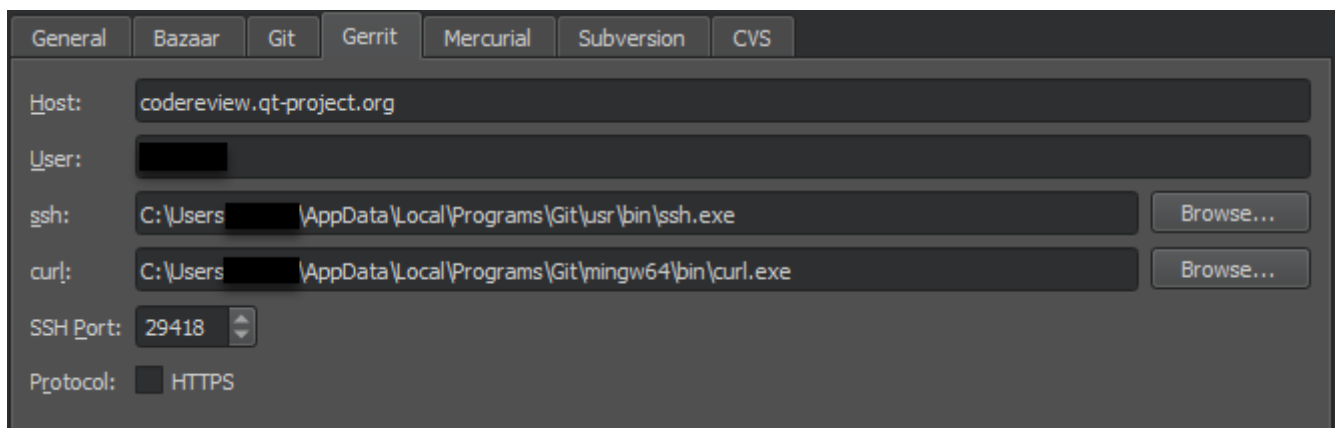
To cherry-pick the selected change to the local repository, select **Cherry Pick**. To remove the change after testing it, select **Tools > Git > Local Repository > Reset**. In the **Undo Changes to** dialog, select the state to reset the working directory to, and then select **OK**.

To check out the change in a headless state, select **Checkout**.

To refresh the list of changes, select **Refresh**.

The **Remote** field lists the remotes of the current repository that are detected as Gerrit servers. Select **Edit > Preferences > Version Control > Gerrit** to specify a fallback connection to a Gerrit server over SSH. The Gerrit REST interface and the `curl` tool are used for HTTP connections.

Select the **HTTPS** check box to prepend to the Gerrit URL if Gerrit does not provide it. `https`



## Working with Git Tools

To start a graphical interface to Git, select **Tools > Git > Git Tools > Git Gui**.

**Note:** On macOS, the default Git installation does not contain Git Gui. To use Git Gui, install it separately. To start Git Gui from Qt Creator, select **Preferences > Version Control > Git**, and set the path to the environment that contains Git Gui in the **Prepend to PATH** field.

To start the commit viewer for Git, select **Tools > Git > Git Tools > Gitk**. You can also start the tool to view commits in the current document or in the folder that contains the current document. To specify arguments for running Gitk, select **Edit > Preferences > Version Control > Git**.

To use some other application for viewing Git history, such as GitX or QGit viewer, select **Edit > Preferences > Version Control > Git** and specify the path to the application executable in the **Command** field. To start the application, select **Tools > Git > Git Tools > Repository Browser**.

To start , select **Tools > Git > Git Tools > Git Bash.git bash**

To resolve merge conflicts, select **Tools > Git > Git Tools > Merge Tool**. This menu item is visible only when you have merge conflicts to resolve.

< [Using CVS](#)

[Using GitLab](#) >



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