

GIT tips

Moving Patches across repositories

Best work flow to deal with cross repository merging is to add both repositories in one local directory. Then you're able to merge and cherry pick across the different repositories.

For the sake of example I'll show how to merge b2_8_fe into b_2_8_fe_sgi. These are two different repositories.

Clone a base repository:

```
git clone ssh://ashehata@git.whamcloud.com:29418/fs/lustre-release-fe-sgi
git checkout b2_8_fe_sgi # checkout the remote SGI branch
```

Add FE remote repository:

```
git remote add 2.8-fe ssh://ashehata@git.whamcloud.com:29418/fs/lustre-release-fe
git pull 2.8-fe
```

"2.8-fe" is the name you give the remote repository.

Do the merge:

```
git merge 2.8-fe/b2_8_fe
```

At this point b2_8_fe_sgi has been fast forwarded to b2_8_fe.

To list remote branches

```
git branch -rv
```

To list current repositories being tracked in your local directory

```
git remote
```

To create a copy of a branch into another repo

```
git checkout repo1/branch1
git push repo2 HEAD:branch1
```

To delete remote branch

```
git push repoX :branch_to_delete
```

Also when pushing to create remote branch, the HEAD in the command above you can just be replaced with a commit hash, if you don't feel like checking out the branch.

Same works with merging, if you don't want to merge whole branch, but only up to a certain point, you can use commit hash id instead of whole branch path.

Rebase also works against remote branches in the ways you would expect.

Git procedure to rebase and update a remote branch

```
git clone ssh://ashehata@review.whamcloud.com:29418/fs/lustre-release
git checkout multi-rail
git fetch origin master
git merge origin/master
git push origin multi-rail

# to grab only a few patches
git checkout multi-rail
git checkout <SHA>
git push origin HEAD:multi-rail
```

Using local branches

Cherry-pick from a local repository. Useful when pulling features from one repository to another

```
git remote add <other> /path/to/local/repo/.git
git fetch <other>
```

Remove the added repository

```
git remote remove <other>
```