eawag
aquatic research ₒₒₒ

Installing and using git

Workshop Scientific computing

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Install git

- Install from http://git-scm.com/download
- Open Git GUI
- Open "Repository" > "Git Bash"

```
git config --global user.email "your.name@eawag.ch"
git config --global user.name "Your Name"
```

Create a local repository

- Open Git GUI
- Create new repository
- Open Git Bash

Create a local repository

Create repository

```
git init
```

Add files

```
git add <file>
```

Revert changes

```
git reset --hard
```

Show status

```
git status
```

Stash changes

```
git stash
git stash list
git stash apply
```

Commit

```
git commit -m "Commit message."
```
Commit all changes:
```
git commit -a -m "Commit message."
```

Create branch

```
git branch <branch name>
```

Merge

```
git merge <other branch>
```

Create tag

```
git tag -a <tag> -m"Description"
git tag
```

Switch version

```
git checkout <branch>
git checkout <tag>
git checkout <version>
```

Working with remote repositories (1)

1. Open Git GUI
2. Clone existing repository
   Source location: git@54.77.30.64:/home/git/git_demo.git
   Target Directory: git_demo
   Password: `GitEAWAG2014`

Git Bash:

```
git clone git@54.77.30.64:/home/git/git_demo.git
```

Working with remote repositories (2)

- Which branches do you have?

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```
git branch
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```
git branch -r
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- Copy remote branches:

Working with remote repositories (2)

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- Copy remote branches:

```
git pull origin <branch name>
```

Working with remote repositories (2)

- Which branches do you have?

```
git branch
```

```
git branch -r
```

- Copy remote branches:

```
git pull origin <branch name>
```

```
git pull origin hollande
```

```
git checkout hollande
```

Collaborative development

Complete the following sections in the document (in groups):

1. Branching
2. Stashing
3. Tagging
4. Commit
5. Staging and Committing
6. Merging
7. Clone from remote repository

Commit all changes.

Push changes to remote repository

```
git push origin <branch name>
```