

fhict-git-manual

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1 Installation

Note: you **don't** need to install ssh-keys for https access of the git server. Access is only possible via the '**https**' protocol.

This page will provide information for the following platforms:

- Windows
- Mac
- Linux

2 Windows installation

For windows the following options are recommended (you **don't** need to install all of them):

- Git for Windows (command line and graphical user interface)
- TortoiseGit
- Github for Windows

2.1 Installing Git for Windows

- Download [Git for Windows](#)
- Install:
 - Use default installation options

2.2 Installing TortoiseGit

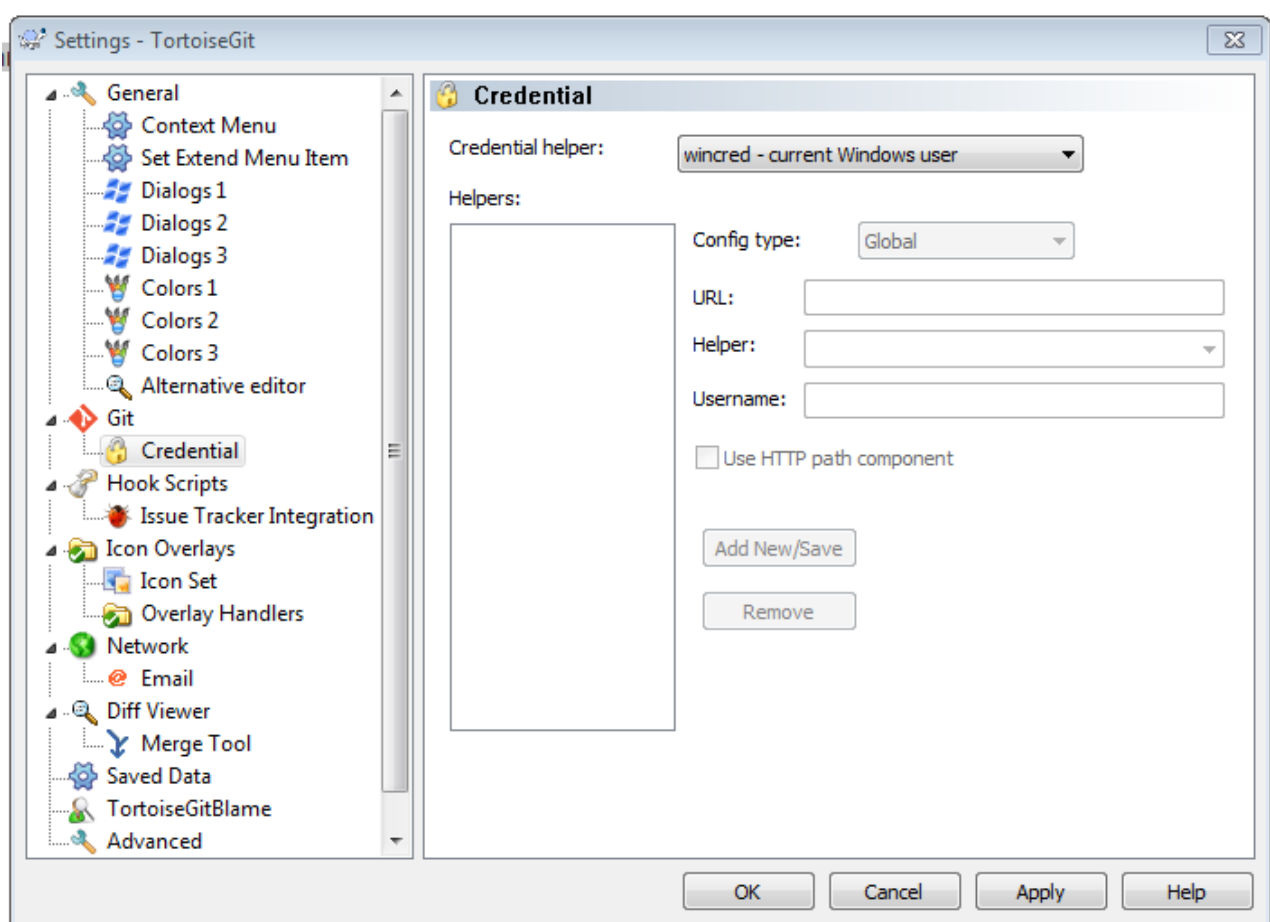
TortoiseGit can be used as a graphical frontend for git. You also **have** to install **Git for Windows**(see previous step) when using TortoiseGit.

- Download [TortoiseGit](#)
- Install:
 - Use default options
- After installation open **Settings** in TortoiseGit
- Select **Git** -> **Credential** according to picture below:
- Select **Git** and change **Name** and **Email** with your credentials. For email please use your-pcn@student.fontys.nl:

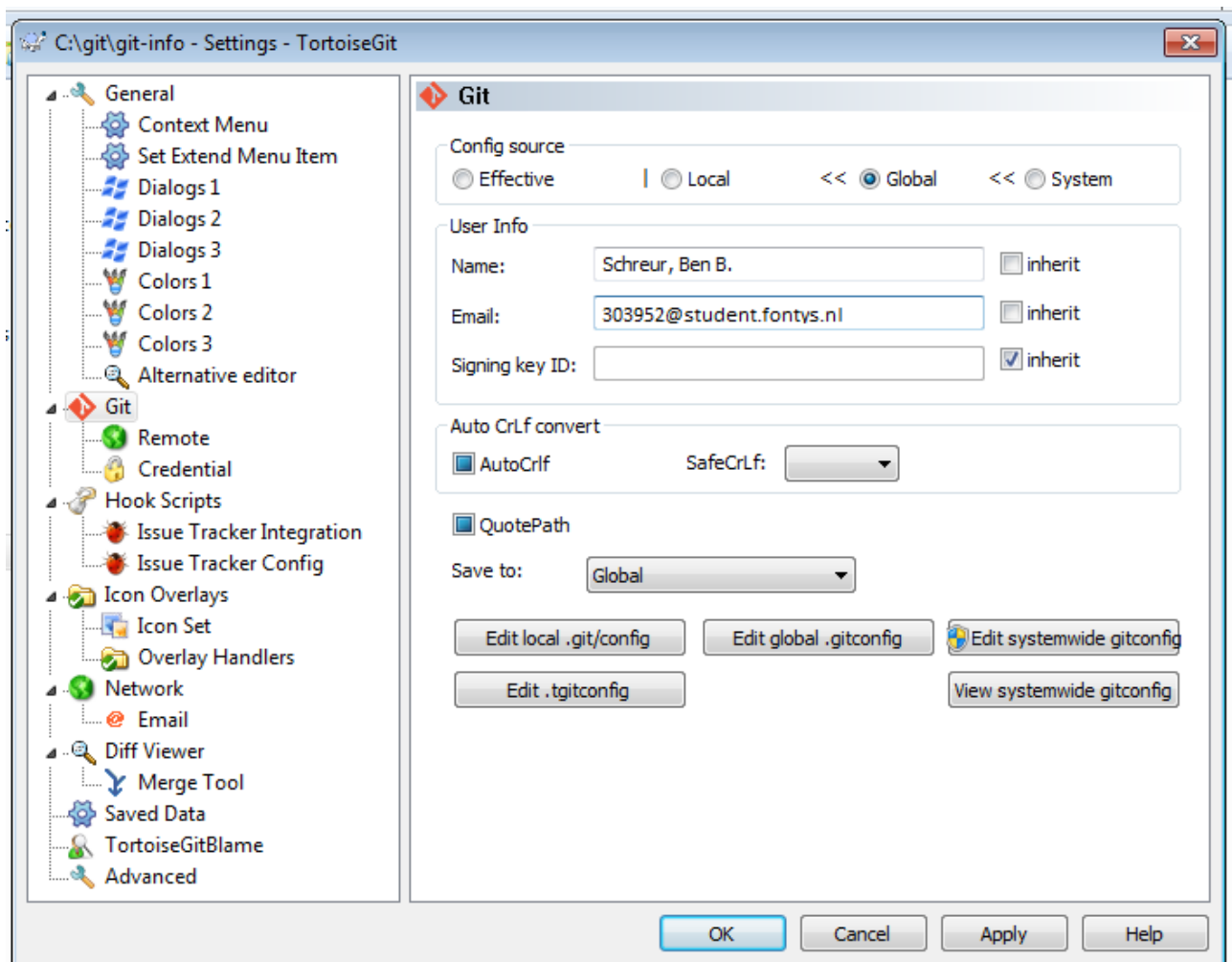
With the default settings of git you can only push changes with a maximum size of 1 Mb to the server. You can change the settings by selecting the **Edit global .gitconfig** file in the Git Settings screen (see above screenshot):

You can change this default by adding the following lines to the end of your **gitconfig** file.

```
[http]
  postBuffer = 524288000
```



Figuur 1: TortoiseGit Credential Settings



Figuur 2: TortoiseGit Credential Settings

2.3 Installing Github for Windows

The ‘Github client’ might be a bit more easy for basic use, but you will have to resort to the command line when basic synchronisation will not work anymore. Install the [Github-for-Windows client](#). You **don’t** need to have a [Github](#) account for using this client and can **skip** this step when running it.

See the [Github client page](#) for more details on how to use it.

3 Mac installation

3.1 Installing git

Check out this [link](#)

Run the following command in a terminal:

```
git config --global http.postBuffer 524288000
```

4 Linux installation

4.1 Installing git

Open a terminal an run the following command:

```
sudo apt-get install git
```

Run the following command in a terminal:

```
git config --global http.postBuffer 524288000
```

5 Available graphical clients

Check out this [link](#) # Basic concepts

6 Links

Much on git can be found online. Some starting points:

- [Wikipedia on Git](#)
- [Official Git site](#)

6.1 Why use a versioning system?

For instance:

- Sharing work and ideas
- Keep track of different versions of files
- Easy merging of different versions of files
- Backup
-
- ..
- .

6.2 Common git concepts

Term	Meaning
Clone	Create a copy of a remote repository on your computer.
Commit	Commit local file change(s) on your computer to the version history.
Push	Push (=send) the changes on your local computer to a remote repository.
Pull	Pull (=retrieve) the changes on the remote repository to your computer.
Merge	Resolve conflicts in case there are two version of a file that cannot be merged automatically.

Further reading over [here](#).

6.3 Branching

More information can be found [here](#). Note that branching is not necessary when you want to start working with git. # Tutorials

- [Got 15 minutes and want to learn Git?](#)
- [A Hacker's Guide to Git](#)
- [Vogella Git tutorial](#)

7 Further reading:

- [Git vs Svn](#) # Terminal basic use cases

This page will give you an overview of typical use cases by using the [command line](#).

- Open a terminal (Linux, [Mac](#))
- Use the [Git Bash](#) program on Windows.

7.1 Cloning a repository

```
git clone https://git.fhict.nl/fhict-manuals/git-manual.git
```

Please use your-pcn@student.fontys.nl for the email address when configuring your git:

```
git config --global user.email "your_pcn@student.fontys.nl"
```

or this command when you only want to use this email for this local git directory:

```
git config user.email "your_pcn@student.fontys.nl"
```

7.2 Updating a repository

Retrieve changes from remote server to your machine:

```
git pull origin
```

Send changes from your machine to remote server:

```
git push origin
```

7.3 Committing changes to your local repository

Show current status of files in your directory:

```
git status
```

Adding files to the repository:

```
git add newfilename.txt
```

Commit every change file in current directory:

```
git commit -m "Update message" .
```

Commit only specific files:

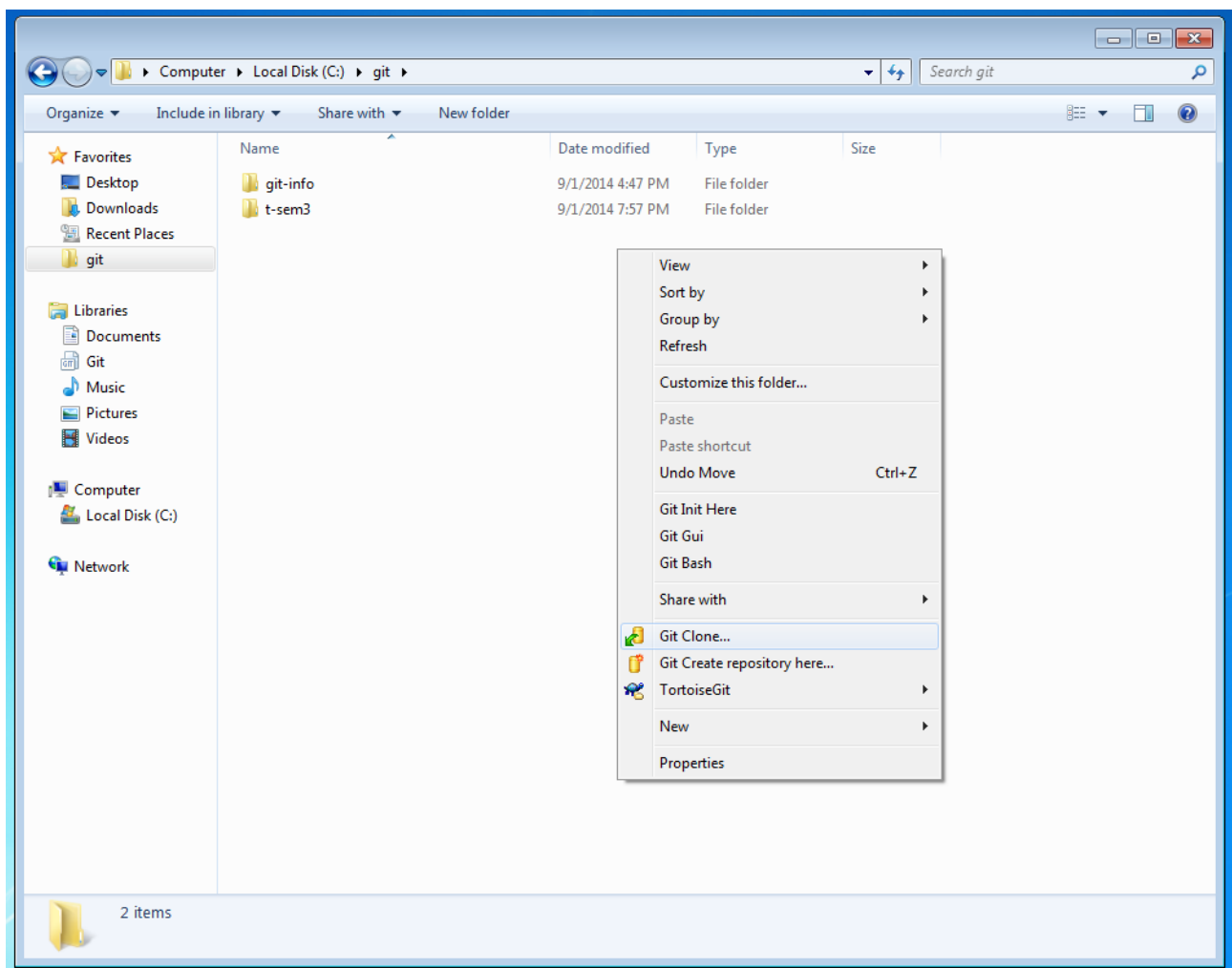
```
git commit -m "Update message" myfile.txt otherfile.txt
```

8 TortoiseGit basic use cases

This page will give you an overview of typical use cases.

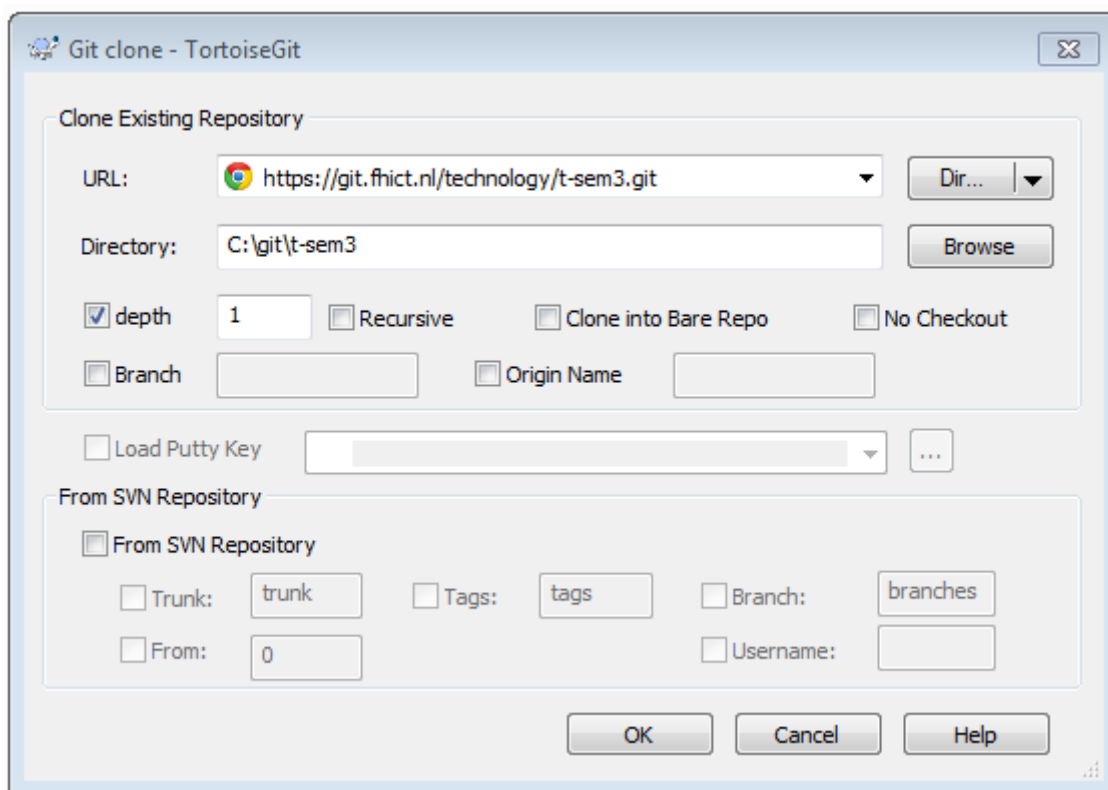
8.1 Cloning a repository

Within a file explorer open the context menu:



Figuur 3: Cloning a repository

Fill in the `https` url of the repository you would like to clone:



Figuur 4: Cloning window

8.2 Updating a repository

Within a file explorer select the local directory of your repository and right-click on it:

From here you can perform the [basic](#) actions to stay in sync with your the remote repository on the server (pull, push, etc).

8.3 Committing changes to your local repository

From the context menu of the repository (above picture) you can select the **Git Commit** -> "master" option. You will see the following window:

New files can be added to the repository by selecting them. You can also see which files where changed since your last commit. # Github for Windows client basic use cases

This page will gave you an overview of typical use cases.

8.4 Cloning a repository using HTTPS

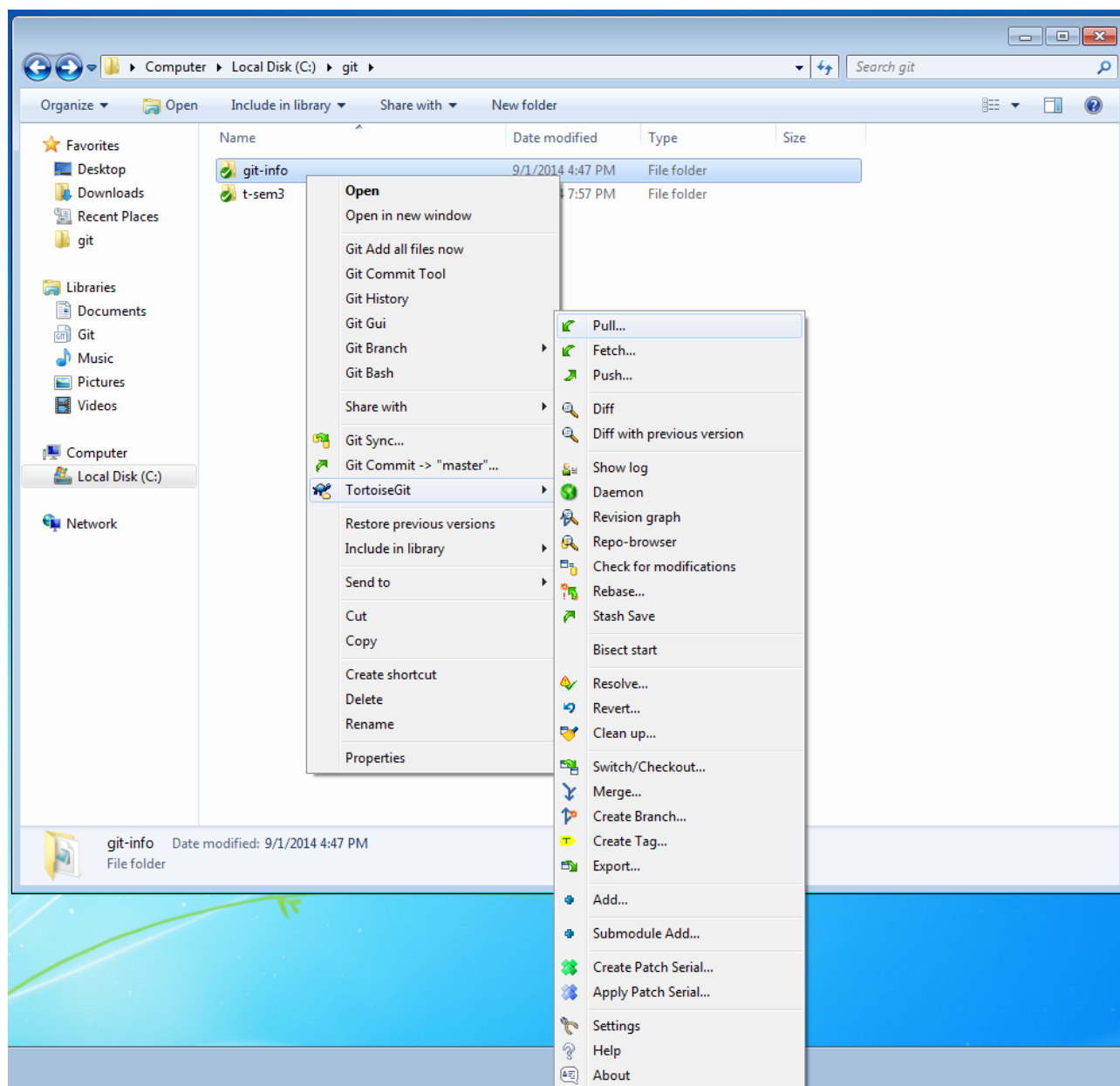
Select the **https** repository link from the `git.fhict.nl` website on drop it into the Github application: (Use your fhict i-account when asked for credentials.)

8.5 Adding existing repositories

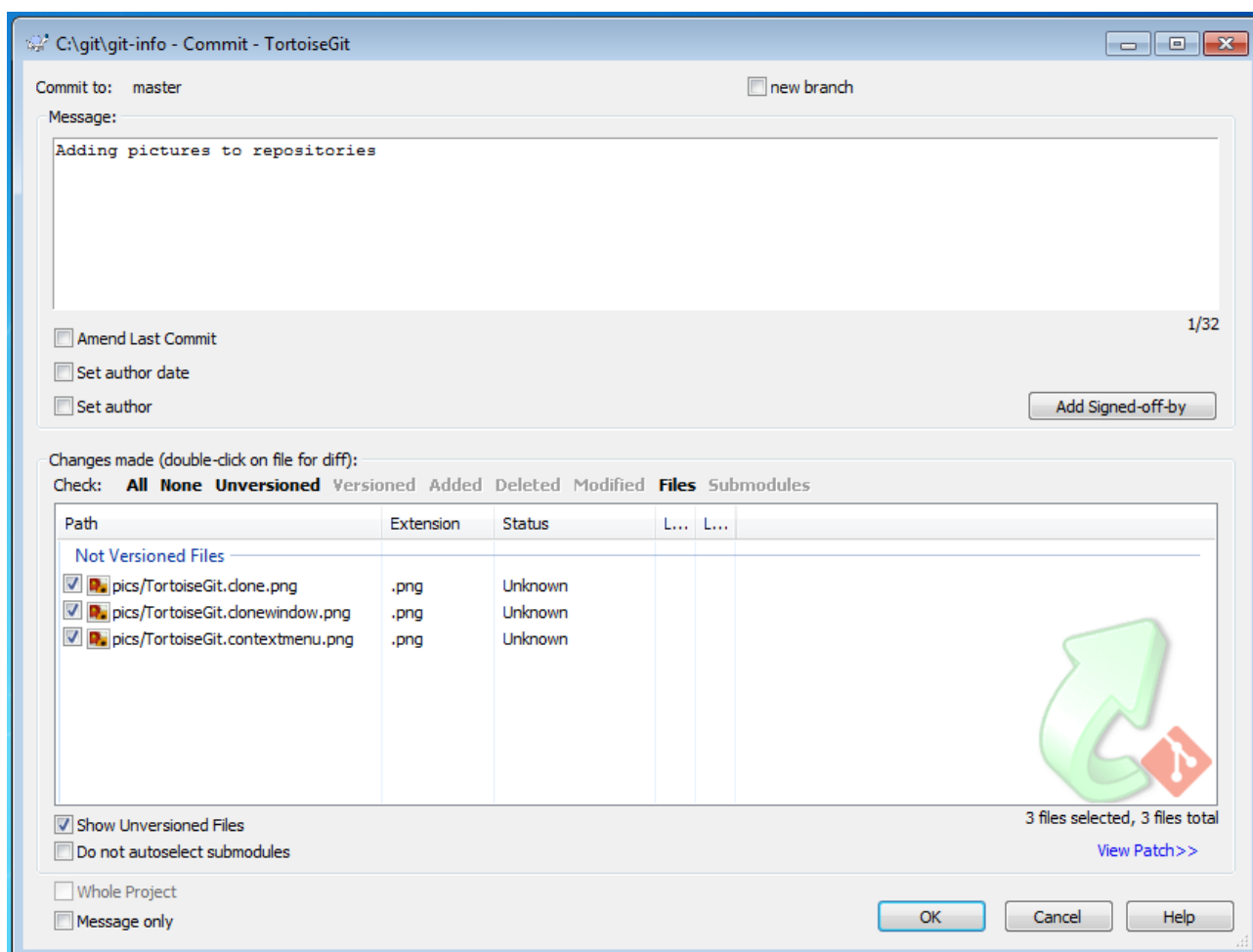
Select the options menu. Please use your-pcn@student.fontys.nl for the email address:

8.6 Updating a repository

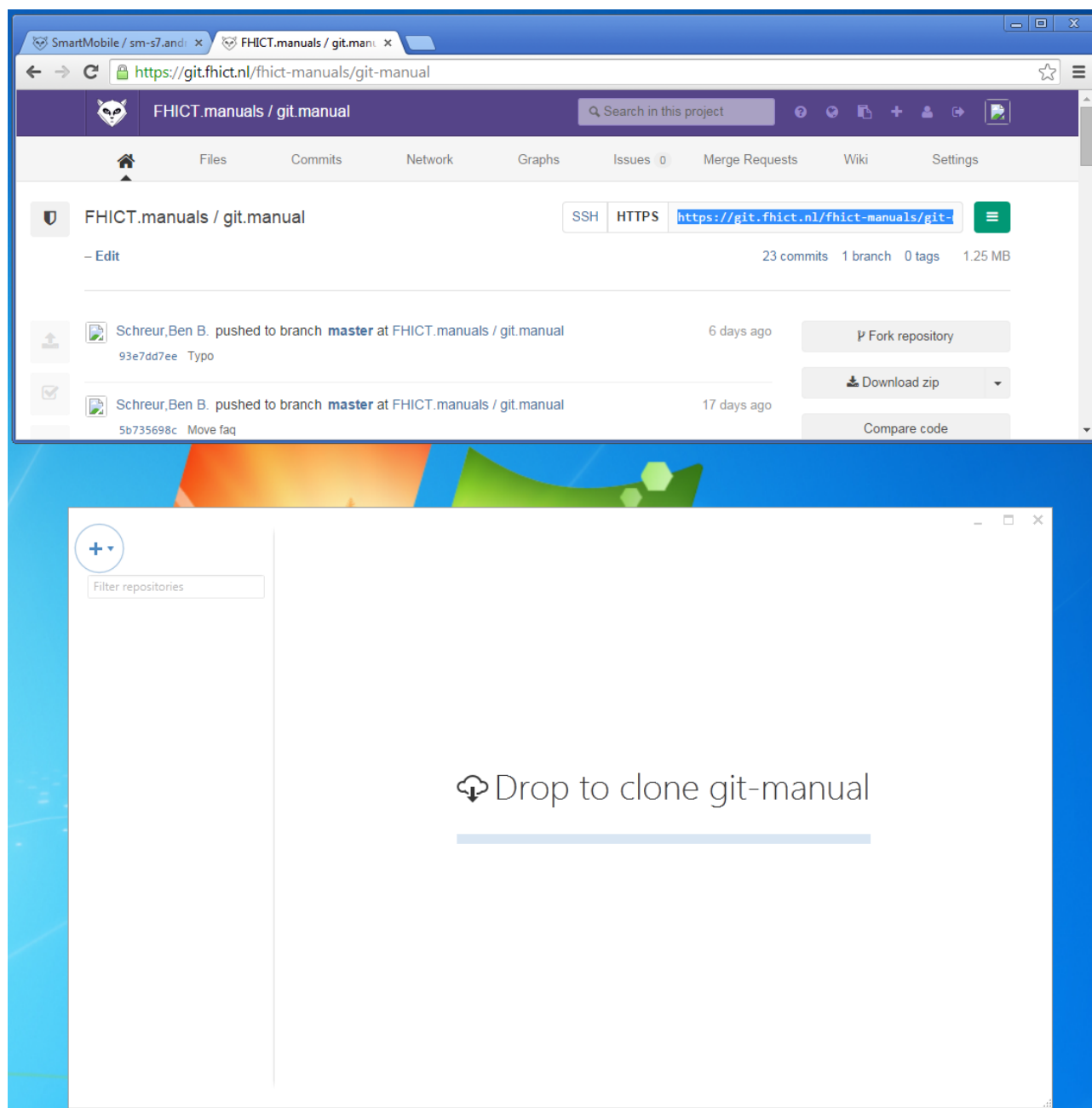
Press the **sync** button.



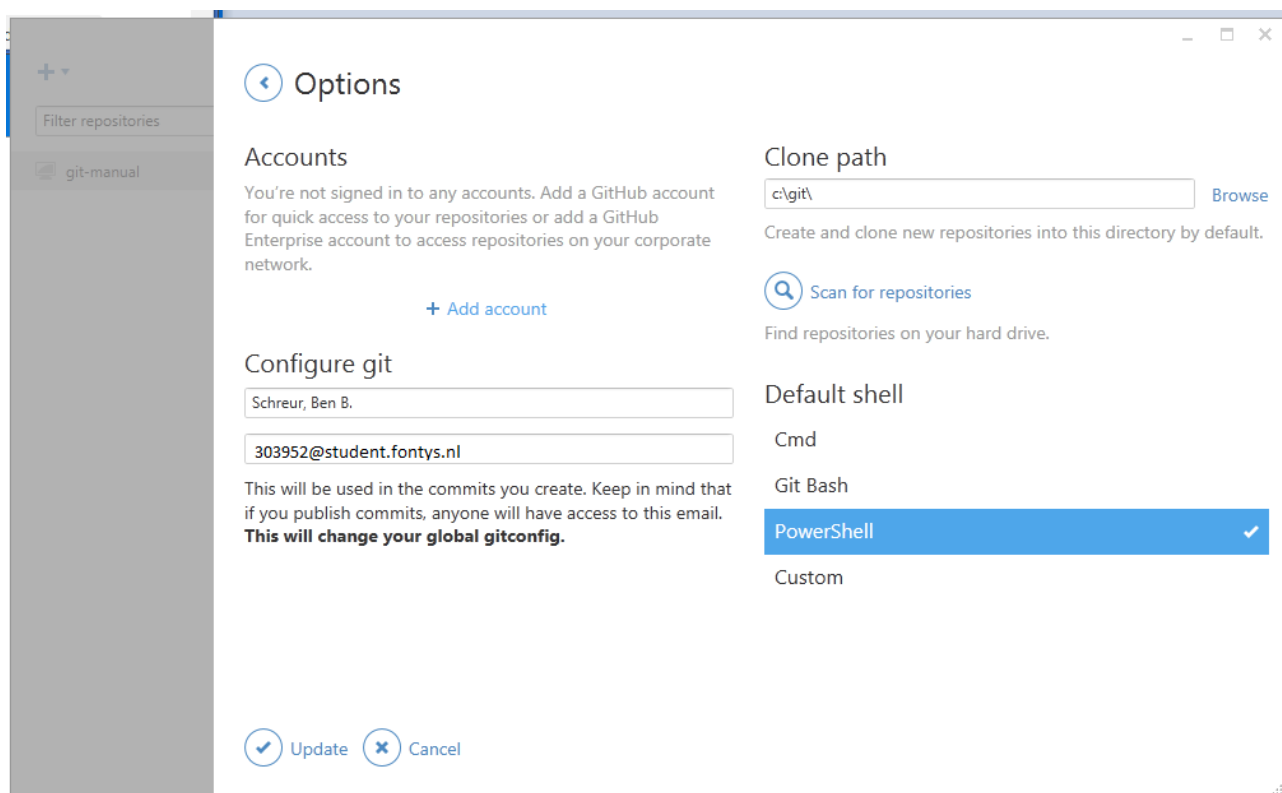
Figuur 5: Repository context meny



Figuur 6: Commit window



Figuur 7: Drop to clone



Figuur 8: Add existing repos

8.7 Committing changes to your local repository

Add a comment and press on the **Commit to master** button.

You can send these updates to the server by pressing on the **sync** button.

8.8 Synchronisation does not work anymore

Sometimes synchronisation will not work anymore. In this case you will have two options:

- Perform a fresh clone of the repository and manually copy your file changes to it.
- Open a terminal (right-click on the project in the Github client application) and try to fix the issue by using terminal commands. This requires a bit more expertise on git use. Also see the [terminal page](#) for some basic terminal commands.

9 Frequently Asked Questions

9.1 Q: I have committed my files, but I can't see them on my git.fhict.nl site?

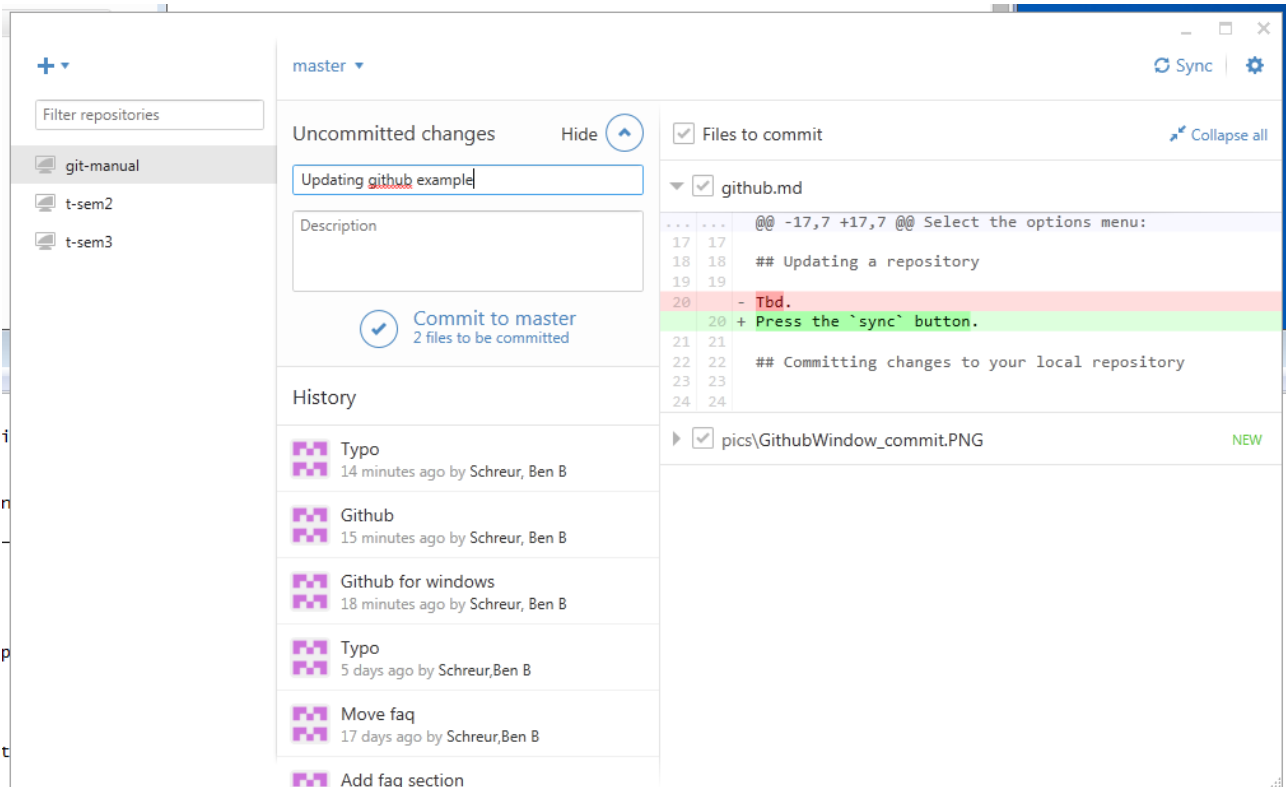
A: Did you perform a **push** command? Check out [basics](#) and [tutorials](#) section.

9.2 Q: I get a strange error when pushing my files to the server?

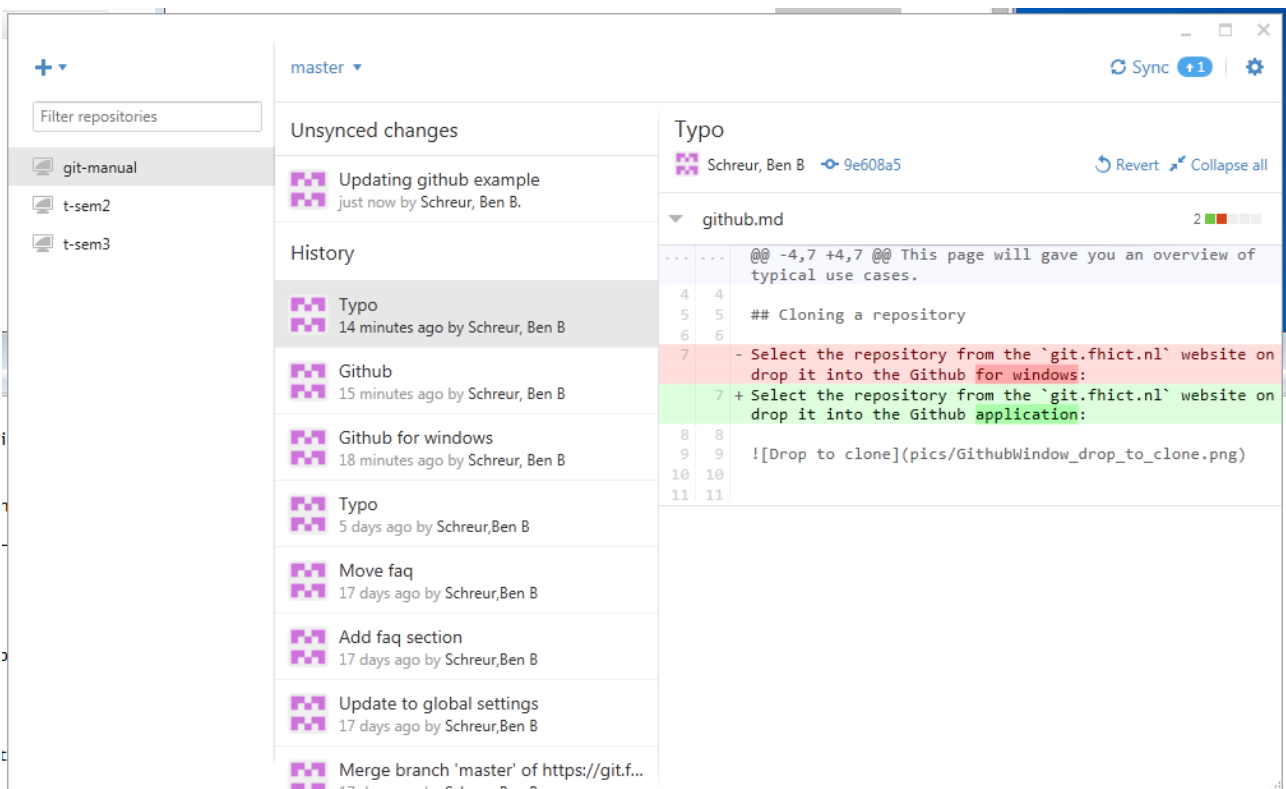
Did you configure the `http.postBuffer` of your git client? Check out the [installation steps](#).

9.3 Q: I would like to give somebody else access to my repository?

Check the [public access section](#).



Figuur 9: Sync



Figuur 10: Sync

9.4 Q: How do I set up the ssh-keys?

No ssh-keys are needed for git.fhict.nl. You get access by using the **https** link of the repository and logging in with your fhict i-account. More details at [installation](#).

9.5 Q: My ‘Github client application’ does not sync anymore, and gives me some strange error message?

Click on the left repository, and select ‘Open in terminal’. In the terminal run the following commands:

```
git pull origin (You have to provide an enter here...)
```

```
git push origin (Enter again...)
```

See [basic concepts](#) if you like to learn more on the terms pull and push.