

How to use GIT version control system to backup and work collaboratively on the same documents

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1 Introduction

L^AT_EX is a very good tool for this purpose as the files are created in ASCII format and everybody can read it the same way.

2 What is version control system (VCS)?

There are many models of VCS, but the main idea in all of them remains the same. This is the ability of registering the changes to the files. A typical workflow can be described as follows:

1. Repository is initialized with initial files.
2. Then a person copies the repository
3. makes some changes to the files
4. submits them back to the repository
5. clever algorithms detect which part(s) of the files were altered
6. The files are updated and the changes being made are saved
7. Go back to point 2.

As you see from this description it is clear that the whole history of how the files were changing is saved and, thus, they can be restored to any previous state. In addition to this being such a good back up tool, there are several other advantages one should be aware of:

- It takes much less space than having multiple folders with different versions of the files

- One can spot what was changed much more easily
- People can work on different parts of the file at the same time.

The last feature is the most useful for \LaTeX users once they need to work together with someone.

3 Using GIT and \LaTeX

4 Using other VCS solutions

Using other VCS solutions is possible and highly recommended for people, who find GIT too hard. One very good alternative with slightly more intuitive command syntax might be Mercurial.

There are also another VCS, which should be abandoned because of their inefficiency and limitations, but the fact is that they are still around. Those are Subversion (SVN) and CVS.