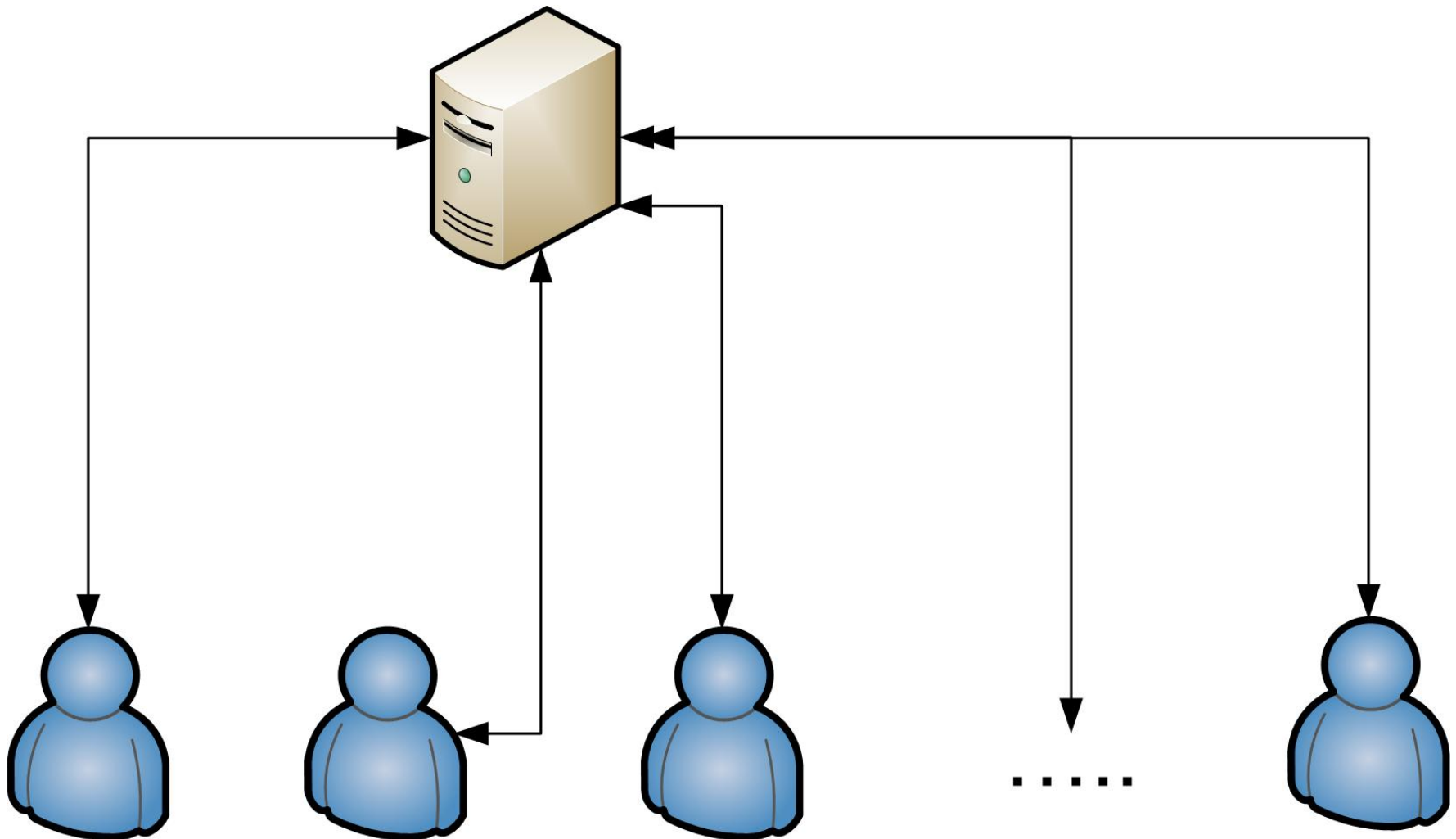


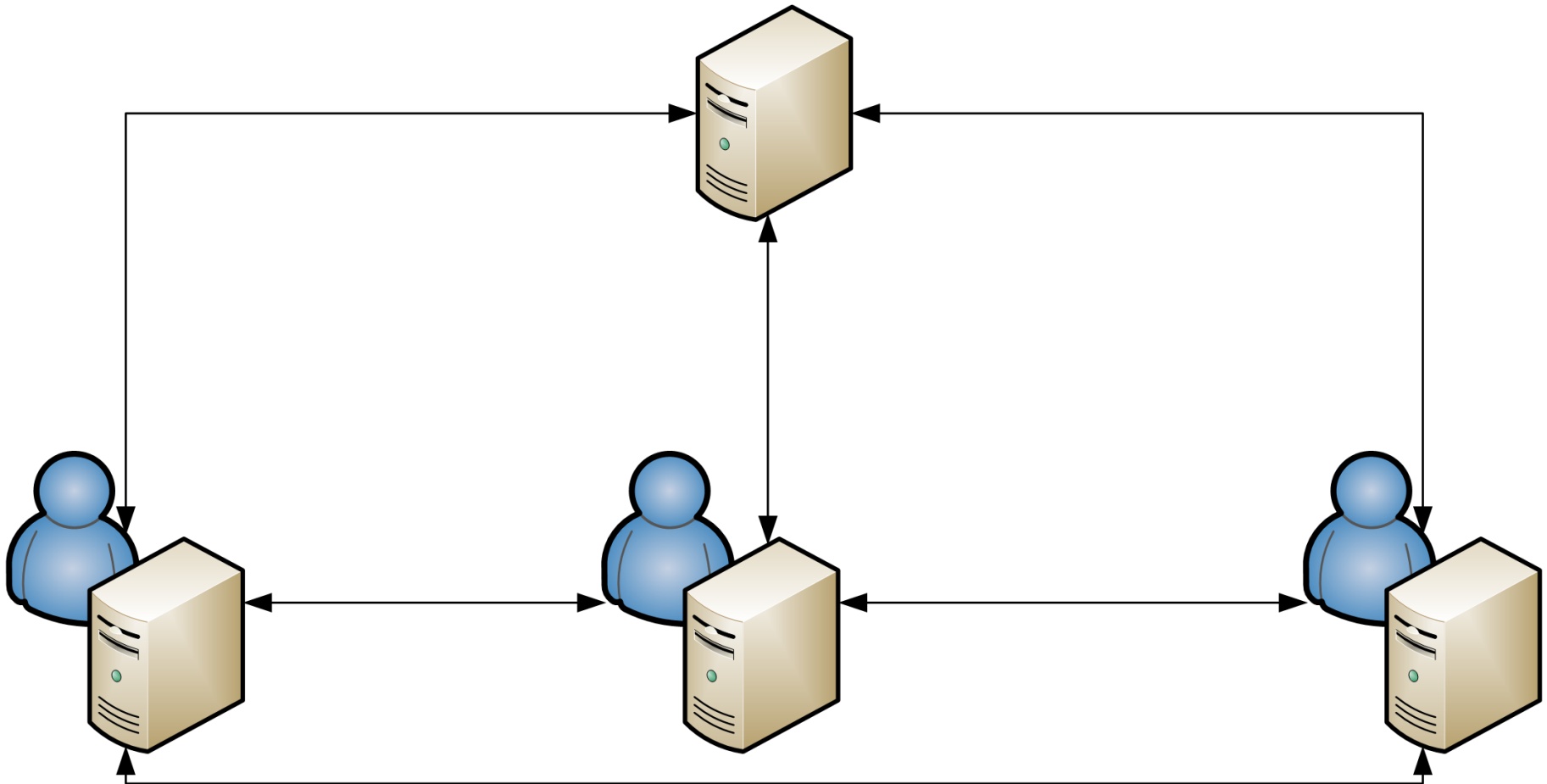
Eine kurze Einführung in Git



Wiederholung: Zentrale Versionsverwaltung



Dezentrale Versionsverwaltung



Git Installation

- Sollte in allen gängigen Versionsverwaltungen enthalten sein (Linux)

```
$ sudo apt-get install git-core
```

- <http://code.google.com/p/msysgit/> für Windows
- <http://code.google.com/p/git-osx-installer/> für Mac OS X, alternativ kann man es auch via

```
$ sudo port install git-core
```

installieren

Erste Schritte – Repository Clonen

```
$ git clone \  
    git@gitorious.org:pmsb-openms-2011/pmsb-openms-2011.git \  
    pmsb-openms-2011
```

```
$ cd pmsb-openms-2011
```

Lokale Änderungen

```
$ edit/compile/test/edit ..
$ git status
# On branch master
# Changes not staged for commit:
#   (use "git add <file>..." to update what will be committed)
#   (use "git checkout -- <file>..." to discard changes in
working directory)
#
#       modified:   projects/README
#
no changes added to commit (use "git add" and/or "git commit -
a")
```

Lokale Änderungen II

```
$ git add projects/README
$ git status
# On branch master
# Changes to be committed:
#   (use "git reset HEAD <file>..." to unstage)
#
#       modified:   projects/README
#
$ git commit -m "added some more text to README"
[master a3133f0] added some more text to README
 1 files changed, 2 insertions(+), 0 deletions(-)
```

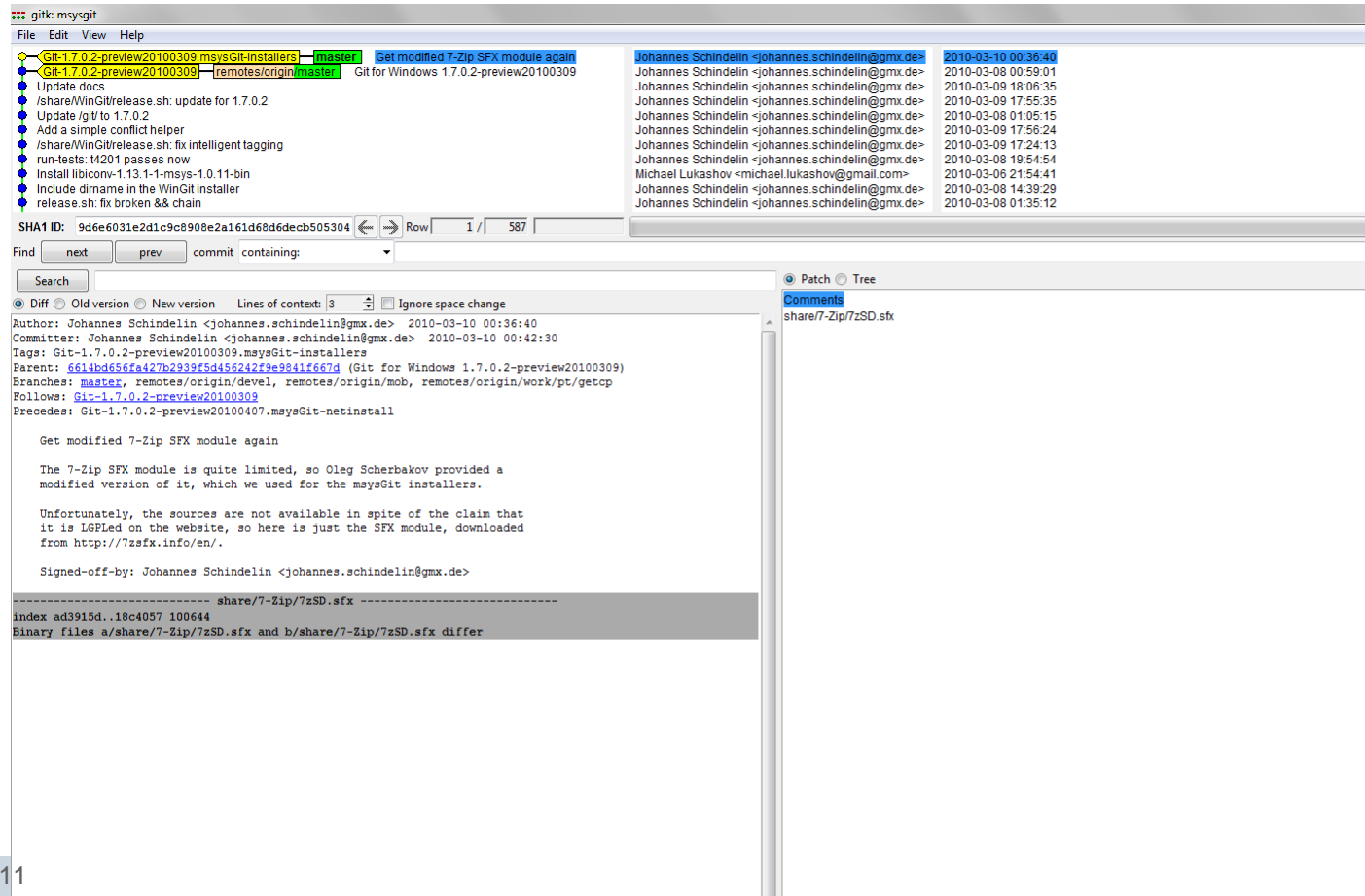
Nützliche Befehle

- Änderungen Rückgängig machen

```
$ git checkout path
```

- Historie anschauen

```
$ gitk
```



The screenshot shows the gitk graphical interface. At the top, a list of commits is displayed, including the current commit: `Git-1.7.0.2-preview20100309.msysGit-Installers` by Johannes Schindelin. The main area shows the diff for the selected commit, with the following content:

```

Author: Johannes Schindelin <johannes.schindelin@gmx.de> 2010-03-10 00:36:40
Committer: Johannes Schindelin <johannes.schindelin@gmx.de> 2010-03-10 00:42:30
Parent: 8614b6656fa427b2939f54456242f3e9811f687d (Git for Windows 1.7.0.2-preview20100309)
Branches: master, remotes/origin/devel, remotes/origin/mob, remotes/origin/work/pt/getcp
Follows: Git-1.7.0.2-preview20100309
Precedes: Git-1.7.0.2-preview20100407.msysGit-netinstall

    Get modified 7-Zip SFX module again

    The 7-Zip SFX module is quite limited, so Oleg Scherbakov provided a
    modified version of it, which we used for the msysGit installers.

    Unfortunately, the sources are not available in spite of the claim that
    it is LGPLed on the website, so here is just the SFX module, downloaded
    from http://7zsfx.info/en/.

    Signed-off-by: Johannes Schindelin <johannes.schindelin@gmx.de>

----- share/7-Zip/7zSD.sfx -----
index ad3915d..18c4057 100644
Binary files a/share/7-Zip/7zSD.sfx and b/share/7-Zip/7zSD.sfx differ
  
```

On the right side, a list of commit hashes and their authors is visible, including the commit shown in the main view.

Änderungen teilen

```
$ git push origin master
Counting objects: 7, done.
Delta compression using up to 2 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 448 bytes, done.
Total 4 (delta 2), reused 0 (delta 0)
=> Syncing Gitorious... [OK]
To git@gitorious.org:pmsb-openms-2011/pmsb-openms-2011.git
 10544cc..a3133f0  master -> master
```

Änderungen anderer abrufen

```
$ git pull
Auto-merging projects/README
CONFLICT (content): Merge conflict in projects/README
Automatic merge failed; fix conflicts and then commit the
result.
edit/resolve conflicts/...
$ git commit
$ git push origin master
```

Informatives

- <http://git-scm.com/> - Offizielle git Seite
- <http://gitcasts.com/> - Liste mit kleinen Video Tutorials zu den grundlegenden Schritten in git
- <http://www.kernel.org/pub/software/scm/git/docs/everyday.html> - Sammlung von Standard git Workflows
- <http://excess.org/article/2008/07/ogre-git-tutorial/> - Eine etwas längere Einführung mit Infos zu git Interna

- <http://www.youtube.com/watch?v=4XpnKHJAok8> - Amüsanter und informativer Vortrag von Linus Torvalds über git