

Atomic Commits

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**Do you use Version
Control System?**

What do we commit?

We commit **ti**typo fixes.

We commit missing
comments.

**We commit refactored
code.**

We commit bug fixes.

**We commit new
functionality.**

How we may commit?

**We might do little
commits with tiny
changes.**

**We might do big
commits with many
changes.**

We might **mix** typos
with **bug fixes**.

**We might mix
refactoring with a new
functionality.**

We might **mix** them **all**
in one huge commit.

Why do we commit?

Business Requirements.

**Part of the normal
development process.**

**What do we do with
commits?**

**Keep them for historical
reasons.**

**Sometimes we rollback
changes in commits.**

**We use them during
code reviews.**

**We communicate with
other software
engineers.**

Atomic Commits!

**This is an old principle,
back from year 2004.**

“Change reflects a single purpose: the fixing of a specific bug, the addition of a new feature, or some particular task.”

- Subversion Best Practices

**One commit - one
change, even across
many files.**

**Smallest possible
commit.**

**Do not mix cosmetic
and functional changes.**

Reasons for atomic commits

No broken builds.

Possibility to revert.

**Easier to dig change
history.**

**Easier to review
changes.**

Patterns

Atomic typo fix.

Atomic bug fix.

Atomic style fixes.

Atomic refactoring.

**Atomic commits for new
functionality**

Try Atomic commits.

**Add changes
iteratively.**

Don't break the build.

**Do refactoring as
separate commits.**

Rebase if possible.

Merge without squash.

Rollback

**Rollback last commit,
fix, commit again.**

**Rollback bug fix that
does more harm than
good.**

Anti-patterns

**Commit “every
character” we add.**

**Commit functionality
without tests. Add tests
later.**

**Overhead that worth your
efforts.**

**This is a principle, not a
law.**

Share your thoughts.

Links

https://en.wikipedia.org/wiki/Atomic_commit

<https://www.barneyb.com/barneyblog/2006/01/27/atomic-commits-to-version-control/>
<http://www.conifersystems.com/2008/11/05/the-benefits-of-small-commits/>

<https://www.freshconsulting.com/atomic-commits/>
https://seesparkbox.com/foundry/atomic_commits_with_git
<http://adopteungit.fr/en/methodology/2017/04/26/how-to-do-atomic-commits.html>
<http://www.tothenew.com/blog/why-are-atomic-commits-a-best-practice-in-git/>
<https://medium.com/@fagnerbrack/one-commit-one-change-3d10b10cebbf>
<https://frederickvanbrabant.com/2017/12/07/atomic-commits.html>

<http://svn.apache.org/repos/asf/subversion/trunk/doc/user/svn-best-practices.html>

Thanks!

