

# Version Control

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## Subversion

is a system software for versions control specifically designed to replace the old and popular CVS by overcoming its known flaws. It is a free software accessible under an Apache/BSD-type license, also known as svn since this name is the one used on the command line.

## Xpertia

uses Subversion for both, software development as well as documentation control. Xpertia offers the integration of this system software to allow for a more professional software management and thus provide an efficient software development activity.

## Benefits of using Subversion

- Renamed copies are used to keep a historical track of archives and directories
- Atomic modifications, including changes in several archives at the same time
- Branching and labelling is more efficient. Constant complexity ( $O(1)$ ) and not CVS's linear complexity ( $O(n)$ )
- Only differences are updated in both directions (CVS always works with complete archives)
- Served using Apache, over WebDAV/DeltaV. This allows WebDAV users to have a transparent use of Subversion
- Binary archives are managed efficiently (CVS treats them as text archives)
- Selective archive locking. It is mainly used in binary files that cannot easily be merged, and thus they are more likely to be edited by one user only
- All Apache options are subject to be used when Subversion is integrated with it (SQL, LDAP, PAM, etc)

Subversion is very well known in the open source software communities and it is being used in myriads of projects, including the Apache SW Foundation, KDE, GNOME, Free Pascal, FreeBSD, GCC, Python, Django, Ruby, Mono, SourceForge.net, ExtJS and Tigris.org. Google Code does also provide Subversion based storage management for the open source projects. BountySource use it exclusively, and Codeplex offers access to Subversion as well as other client types.

Subversion is also being used in the corporate world. In 2007 a report by Forrester Research, confirmed Subversion as the sole leader in the versions control category.