

# Helix Versioning Engine

## Collaborate Without Limits

Helix is an enterprise-grade SCM and content collaboration platform that helps teams build better products faster. It offers a hybrid approach to version control—use it as a distributed version control system (DVCS) or take a centralized approach. It also serves as a Git master with built-in support for Git command line. It's blazing fast for both local and remote users, yet offers enterprise-class security, scalability, and control. The Helix Versioning Engine scales to accommodate teams contributing any type and volume of assets and supports highly automated continuous integration and continuous delivery practices.

## Raw Power

Helix is the only system you'll never outgrow.

- Single source of truth: Store anything and everything in one place
- Handles any type and amount of data, even huge binary files
- Accommodates tens of thousands of concurrent users and tens of millions of changes per day
- Supports high-volume, automated environments and continuous delivery

## Enterprise DVCS

It's the only DVCS that's enterprise-ready out of the box. Developers enjoy all the power of Helix with all the freedom and speed of local repositories.

- Easily start from scratch or clone existing repos
- Branch locally as often as you like, switch painlessly when priorities change
- Rewrite history for a clear and clean work product
- Collaborate directly with colleagues, push to the server only when ready
- Lock files that can't easily be merged to avoid costly rework

## Better Git

Our native DVCS isn't your only option. Helix also lets those who prefer Git to use the tools they love but without the usual consequences for your DevOps and Security teams.



- Use pure, native Git and all your favorite clients and extensions
- Cross-repo tracking and visibility tears down silos and unites teams
- End Git bloat and sprawl once and for all:
  - Slice and dice big repos and pull only what you need
  - Compose smaller repos into a high-performance, single source of truth
  - Handle big files easily with consistent performance
- Bring a fine-grained file-level access control to Git
- Lock files that can't easily be merged, like art assets, audio or video

## Airtight Security

Helix authenticates flexibly with existing systems. It provides highly granular control of what users and groups can do. And it records everything: what was accessed, what was changed, when, and by whom.

- Authenticate with LDAP, Active Directory, and other stores
- Control access right down to the file level by group, user, path, even IP address
- Maintain logs for audit compliance with file signatures for chain of custody
- Add Helix Threat Detection to uncover IP leaks before they happen

## Power Tools

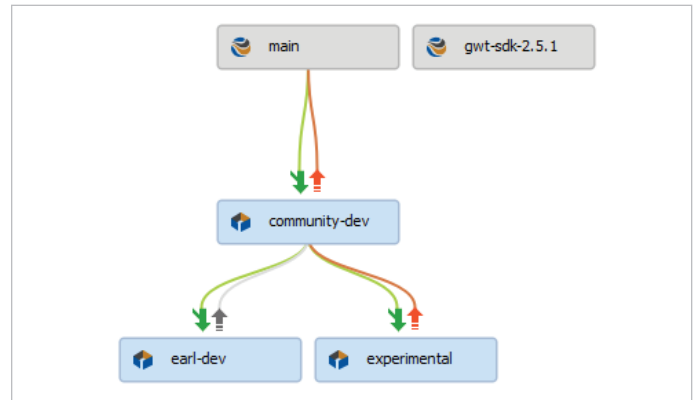
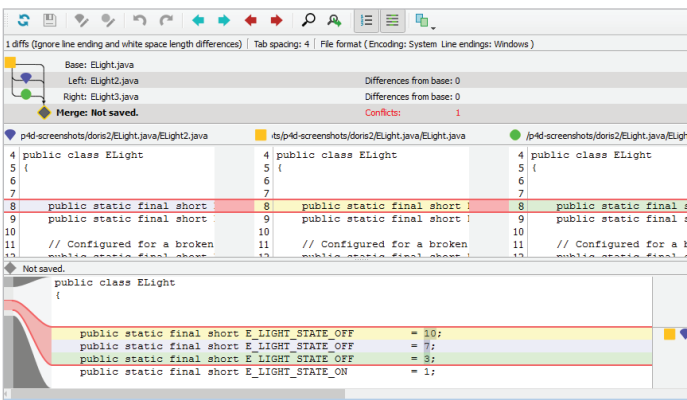
Helix supports a wide variety of client applications and plugins. It integrates out of the box with industry standard tools.

- Use the Helix command line (P4) or the Helix Visual Client (P4V) for typical work
- Use Helix power tools such as P4Merge, the Time-Lapse View, or the Revision Graph
- Or work directly within your favorite software:
  - Developer environments such as Eclipse and Visual Studio
  - Design tools such as Photoshop, Softimage, 3DS Max, Maya
  - The Unity Game Engine and its asset management
  - Microsoft Office and Windows Explorer
  - Any software that supports publishing files via FTP

## Total Flexibility

It supports any development model—DVCS or centralized, streams or traditional branches. Standardize on one or use both approaches as your teams prefer.

- Leverage the power and flexibility of traditional branching
- Streams impose parent-child hierarchy that defines how code flows (or doesn't)
- Virtual streams filter parent stream content so users get only the files they need
- Automate code integration and flow with either model



## Clustering & High Availability

Smaller organizations can rely on a single server, but growing companies often face the challenges of going global. Helix solves these problems through powerful clustering and other features.

- Federated architecture automatically synchronizes content from around the world
- Clustering supports any load, adding new capacity incrementally as needed
- High-availability option keeps everyone working with automated fail-over
- Support for multi-site and global teams

## Optimized for Continuous Delivery

Connect to any system for continuous integration, testing, and delivery. P4D is singular in its ability to power the entire enterprise pipeline.

- Automate code integration and flow with branches or streams
- Integrate with a wide variety of industry-standard software:
  - Jenkins, Maven, Electric Cloud
  - JIRA, VersionOne, Bugzilla, ThoughtWorks
  - Puppet, Chef, Artifactory
- Store all your binaries, even VMs, directly in the Helix Versioning Engine for reproducibility

## Open and Extensible

Helix has powerful automation hooks and well-documented APIs and SDKs.

- Powerful triggers and daemons make it easy to trigger automation
- Build your own tools using C/C++, .NET, Objective-C, Python, Java, Perl, Ruby, and PHP
- Contribute them to the larger community and use other tools at the Perforce Workshop