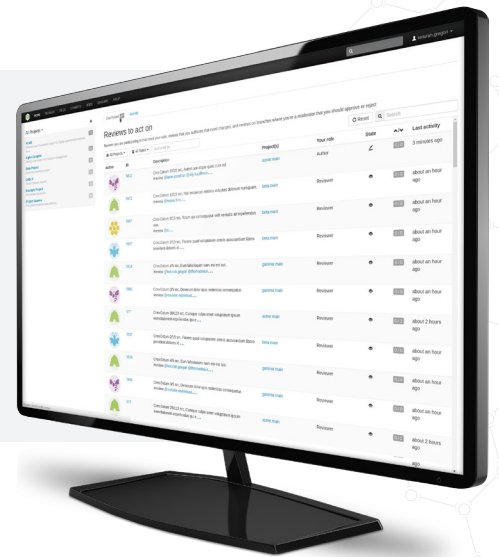


PRODUCT BRIEF

Code Review and Collaboration for Any Type of File

Helix Swarm is a collaboration engine for all types of intellectual property. It unites teams to formalize content reviews, foster brainstorming and keep projects moving forward. Contributors share files, comment, suggest tasks, vote up or down, and submit final work directly within its elegant, web-based interface. Swarm automates the entire process via notifications and makes it easy to monitor progress.



STREAMLINED CODE REVIEWS

Purpose-built for handling multiple reviews at a time, Swarm can handle 100s or 1000s of reviews at once, regardless of project file sizes or the number of files. Swarm also supports Agile methodologies for distributed teams via activity streams, project pages, notifications and a rich repository browser. You can see the entire review history and customize each review to suit your working style:

- See the review lifecycle workflow (pending, approve, reject, etc.) across projects and branches
- Conduct large-scale concurrent code reviews
- Pre- and post-commit review workflow
- Support faster reviews for large files and large numbers of files
- Immediate feedback from build/test (pass/fail)
- Inline or side-by-side reviews with context-based, color-highlighted code
- Diff incremental changes between adjacent versions of code reviews using the Review Timeline

- Easily search for users, files, or projects and see groupings sorted by category Helix Swarm Collaborate on Any Type of File

CODE CONVERSATIONS

Swarm helps development teams achieve faster release cadences without sacrificing quality. Its “code conversations” enable direct and contextual collaboration at each stage of development. You can comment right inside the code—whether you’re sharing your ideas, helping a colleague on a code snippet, or a designated reviewer providing feedback on submitted code. You can even use Markdown to format your in-line comments and make them stand out.

- Comment on reviews
- Comment in-line with code

- Use @mentions to send notifications
- See comments in the activity stream or in emails
- Filter activity streams by reviews, changes, comments, users or projects.
- Set option to delay notifications and batch comments. Then send all comments together in a single email rather than individually each time a comment is made.

OPTIMIZED FOR CONTINUOUS DELIVERY

Swarm projects provide easy hooks into your continuous delivery workflow. Get immediate feedback from your build and test environment or deploy your code for a quick preview of the change—all from one place. It automatically runs submitted code through the build and test environment linked with the project for immediate feedback. You can integrate your build environment with:

- Continuous integration hooks (e.g., Jenkins)
- Deployment tool integrations

ACTION ITEM DASHBOARD

Helix Swarm offers users a pre-filtered, customized list of “Reviews to Act on” for users to work. These reviews are any and all items awaiting your up-vote or approval. Presented following login, Swarm will list all reviews for which you are a block or require your action. Eliminate the need to manually identify your most pressing reviews, scouring through review lists that - if you’re a large enterprise - can run into the hundreds of thousands.

CUSTOM WORKFLOW FOR EACH TEAM

Helix Swarm provides complete flexibility & control for teams to enable their own approval workflows. Users can create their own Swarm project to identify the specific branches they want to review, adding specific moderators to approve any reviews originating from those branches.

CUSTOM REVIEW LIST

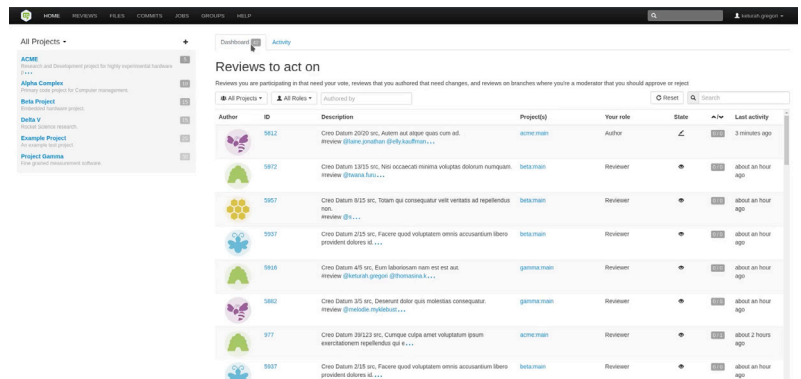
Swarm’s new filters enable users to create a variety of review lists based on their needs, filtered by votes and/or comments. These additions improve efficiency and remove obstacles from users, helping teams identify the correct review to work on from lists of potentially thousands.

REVIEWS FOR ALL TYPES OF CONTRIBUTORS

File previews are possible for various types of files, such as Office documents (e.g., Word, Excel, Powerpoint, Visio, RTF), standard image formats (e.g., BMP, EPS, PSD, TGA, TIFF), and 3D model files (e.g., STL, OBJ, DAE). This enables anyone within a typical firm to start a review process, be it the UX person(BMP, TIFF), or the Game artist(3D Models), or even the marketing professional (Word, Excel, PPT, etc).

NOTIFICATION PREFERENCES

Swarm enables users to choose what the email notifications they prefer to receive. Individuals control the type of notifications they receive while reducing the number of irrelevant or non-contextual emails that can overwhelm their inbox. Swarm also allows admins to configure global notifications to satisfy company policy, admin preference, or audit and accountability standards.



SMART ORGANIZATION OF NOTIFICATIONS

Swarm is excited to introduce Smart Email filters, which lets users organize reviews via specific email headers. Want to organize/group email notifications from Swarm by projects, comments, or a review action such as Approved? Swarm can make it happen. This helps users to organize & group their emails according to their need, thereby making their workflow even more automated & efficient.

FREE TRIAL

Swarm is tightly integrated with Helix. Download Swarm today. It’s free for up to 20 users. Or sign up for a free trial at perforce.com/products/helix-swarm.