

What is the difference between git and github?

Git	Github
Is a version control system with a command line interface	Is a web-based Git repository that makes collaboration between developers easier
Tool to manage multiple versions of source code (or other files), edits are tracked with a repository; typical Git commands are: commit, reset, fetch, merge, push, pull	Github is a location for uploading copies of local Git repositories, from the point of view of Git, Github is just a remote repository
Open source and free	Propriety of Microsoft, free and commercial plans
Maintained by Linux Foundation	Maintained by Microsoft
Installed on local computer	Hosted as Software as a Service
There is also a graphical desktop application called Git Gui	There is also a desktop interface called Github Desktop

Name 3 benefits of a version control system:

- Complete track record of changes in source code files
- Allows multiple developers to work together in a well-defined and controlled environment
- Branching: New features can be implemented independently of the released software via the use of branches. Bug fixing continues to be done in the main branch. When a feature is released the feature branch is merged with the main branch to have a common platform again.

Name 3 alternatives to git:

- SVN (Subversion)
- Mercurial
- ClearCase
- Perforce Helix Core

Name 2 differences between git and other version control systems:

Git vs. SVN

- Git has a distributed architecture, SVN has a central server
- Developer using Git has a local copy of the repo with full version history, developer using SVN has only local copies of files he is currently working on
- SVN branches are created as directories, Git branches are just references to specific commits. There branching and merging is a lot more flexible in Git.

Name known issues related to game engines (Unreal, Unity) and version control systems:

- Large File Sizes involved in Game Development (e.g. 3D models, textures, etc.)
- Binary Files used in Game Development are not handled well by all version control systems
- User Experience of a CLI only VCS for non-developers like artists or designers