[Difference between Git GUI, Git Bash, Git CMD](https://stackoverflow.com/questions/45034549/difference-between-git-gui-git-bash-git-cmd)

38down voteaccepted

Git CMD is just like regular Windows command prompt with the git command. It lets you use all of Git features through command line. Useful if you are already familiar with Windows cmd and you only work on Windows.

Git commands

Windows command line (some differences to unix: dir / ls, del / rm, type/cat)

Git Bash emulates a [bash](https://en.wikipedia.org/wiki/Bash_(Unix_shell)) environment on windows. It lets you use all git features in command line plus most of [standard unix commands](https://ss64.com/bash/). Useful if you are used to Linux and want to keep the same habits.

Git commands (git init, git add, git push…)

Unix features (alias, cd, mkdir, pwd)

Git GUI is a **G**raphical **U**ser **I**nterface letting you use Git without touching command line. It is an alternative among other Git clients. Since Git GUI is very minimal, you could also look at [other alternatives](https://git-scm.com/download/gui/windows) if GUIs interest you.

**Bash** is a [Unix shell](https://en.wikipedia.org/wiki/Unix_shell) and [command language](https://en.wikipedia.org/wiki/Command_language) written by [Brian Fox](https://en.wikipedia.org/wiki/Brian_Fox_(computer_programmer)) for the [GNU Project](https://en.wikipedia.org/wiki/GNU_Project) as a [free software](https://en.wikipedia.org/wiki/Free_software) replacement for the [Bourne shell](https://en.wikipedia.org/wiki/Bourne_shell)

Bash is a [command processor](https://en.wikipedia.org/wiki/Command-line_interpreter) that typically runs in a [text window](https://en.wikipedia.org/wiki/Terminal_emulator) where the user types commands that cause actions. Bash can also read and execute commands from a file, called a [shell script](https://en.wikipedia.org/wiki/Shell_script). Like all Unix shells, it supports filename [globbing](https://en.wikipedia.org/wiki/Glob_(programming))(wildcard matching), [piping](https://en.wikipedia.org/wiki/Pipeline_(Unix)), [here documents](https://en.wikipedia.org/wiki/Here_document), [command substitution](https://en.wikipedia.org/wiki/Command_substitution), [variables](https://en.wikipedia.org/wiki/Variable_(programming)), and [control structures](https://en.wikipedia.org/wiki/Control_flow) for [condition-testing](https://en.wikipedia.org/wiki/Conditional_(programming)) and [iteration](https://en.wikipedia.org/wiki/Iteration). The [keywords](https://en.wikipedia.org/wiki/Keyword_(computer_programming)), [syntax](https://en.wikipedia.org/wiki/Syntax_(programming_languages)) and other basic features of the [language](https://en.wikipedia.org/wiki/Language_(computer_science)) are all copied from [sh](https://en.wikipedia.org/wiki/Bourne_shell).

**Terminal window – the console that we type into**

**Shell program / enviorment – launced with window and extends the command line**

**Shell environments**

**Zsh,**

**Bash**

**Ash,**

**Dash, fish, tcsh,**

**bash**

Live server

When you use the keyboard to type in commands into a terminal window, such as GNOME Terminal, these commands are translated by the shell into ones and zeroes and sent to the kernel which then processes them.

When the kernel finishes, it sends the data back to the shell which translates the output back into text which is displayed in the terminal emulatorand output on the screen.

A shell allows you to execute operating system commands. When a command is entered into the terminal, the shell checks to see if it's a built-in first, and if so, executes it.

Bourne Shell first 1977

Korn shell ksh - adding job control and command history

1983

Bash replaced bourne – exposes array indices, regex conditional, increment assignment operator.

Dash - - smaller and less memory –

What is CentOS 7

Fsh – syntax highlighting, designed for interactivity, autosuggestions, clearner syntax for conditionals

Zsh – identical to bash but enhanced – better command completion and pattern completion

CentOS is a Linux distribution that provides a free, enterprise-class, community-supported computing platform functionally compatible with its upstream source, Red Hat Enterprise Linux

hell is just another word for the UI of an operating system. Strictly speaking, a GUI is as much of a shell as a command-line interface is, but we tend to mainly use the term for the latter.  
  
Bash (Bourne Again SHell) is a particular implementation of a CLI shell, based on an older implementation called Bourne (which is still shipped in Linux distributions; you have used it if you ever called a script with *sh*). It's the analogous of using nautilus as your file manager. File manager is the generic term, Nautilus is the specifing program you're using.  
  
The Windows command-line is also a shell, but being for another OS means it uses the corresponding interface (in this case, Windows API), which is different than the Unix/Linux shells (POSIX API, aka the kernel-user space API), therefore they're not interchangeable.

# [Set the default directory in mac terminal](https://stackoverflow.com/questions/5696757/set-the-default-directory-in-mac-terminal)

# [Difference between “git add -A” and “git add .”](https://stackoverflow.com/questions/572549/difference-between-git-add-a-and-git-add)