

# INTRODUCTION TO GIT



# INTRODUCTION TO GIT

- ❖ Linus Torvalds, had issues with using Bit Keeper ( Commercial 2000-2005, VCS ) for kernel development
- ❖ He started to develop his own VCS, called GIT
- ❖ 1st released in the year 2005
- ❖ Git is a Freeware, open source
- ❖ Git is a Distributed VCS
- ❖ Git initially written in C language, DVCS
- ❖ Supports OS - Windows, Linux, Mac



## FEATURES OF GIT -

- ❖ User can work offline after copy from central server
- ❖ Need network connection only when a user wants to Push changes to server OR wants latest changes from server
- ❖ Free and open source ( Git under GPL -General Public License )
- ❖ It is fast, because the operations are performed locally and does not depend on server
- ❖ As it is written in C language, git avoids runtime overheads of a high level language
- ❖ Chance of losing data is almost zero, since all clients will have copy of repository
- ❖ Git has Integrity (Security) -- as it uses SHA1 - Secure Hash Algorithm Function ( String 40 characters ) Example - 24b9da6552252987aa493b52f8696cd6d3b00373
- ❖ Each checkout is a full version

## WHO ARE USING GIT -

### Companies & Projects Using Git

Google

facebook

Microsoft

twitter

LinkedIn

NETFLIX



PostgreSQL



GNOME



eclipse



# GIT INSTALLATION -

Download Link : <https://git-scm.com/>

 **git** --distributed-is-the-new-centralized

Git is a **free and open source** distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient **staging areas**, and **multiple workflows**.

 **Learn Git in your browser for free with Try Git.**



### About

The advantages of Git compared to other source control systems.



### Documentation

Command reference pages, Pro Git book content, videos and other material.



### Downloads

Git clients and binary releases for all major platforms.



### Community

Get involved! Bug reporting, mailing list, chat, development and more.





Latest source Release  
**2.17.0**  
Release Notes (2018-04-02)

[Download 2.16.2 for Windows](#)

## About

## Documentation

## Downloads

[GUI Clients](#)

[Logos](#)

## Community

The entire [Pro Git book](#)  
written by Scott Chacon and  
Ben Straub is available to [read](#)

# Downloads



[Mac OS X](#)



[Windows](#)



[Linux/Unix](#)

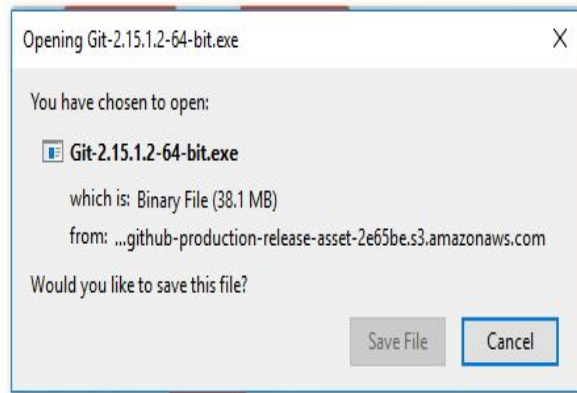
Older releases are available and the [Git source repository](#) is on [GitHub](#).



# Windows Installation Screenshots :

## Step 1. Download the installer

Go to the [Git For Windows](#) website and click on the [Download] button to download and save the installer. Once downloaded double-click on the .exe file to begin installation.



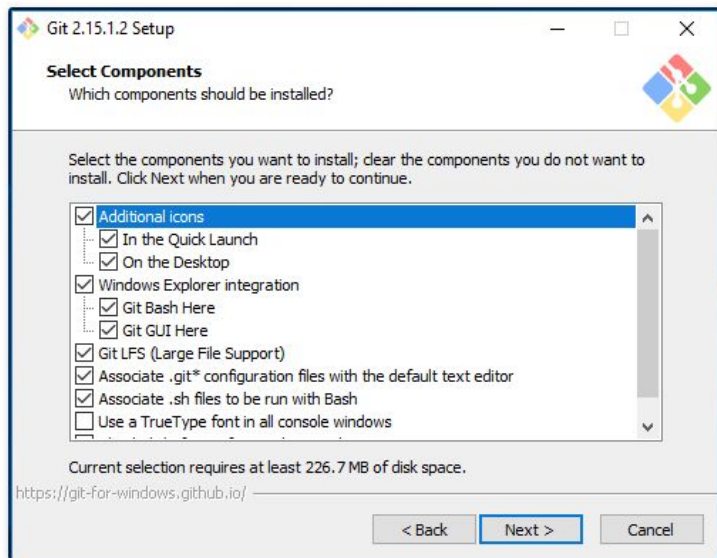
## Step 2. License Information

To accept the License Agreement click [Next >]



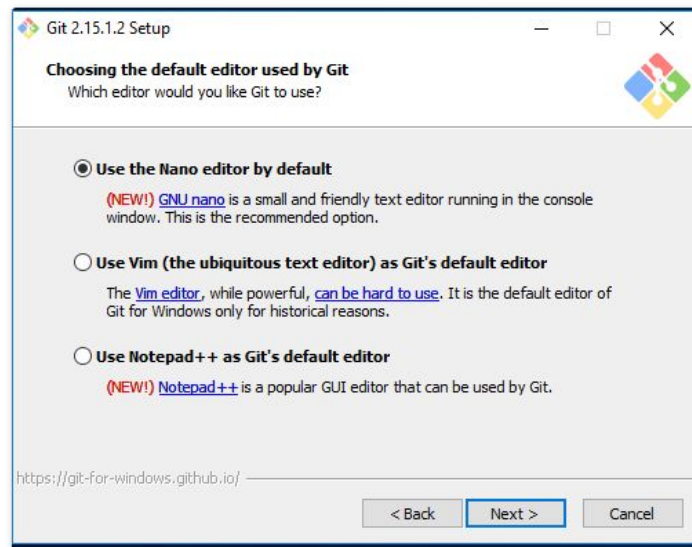
### Step 3. Select Components

Select the following components and file associations, then click [Next >]



### Step 4. Choose default editor

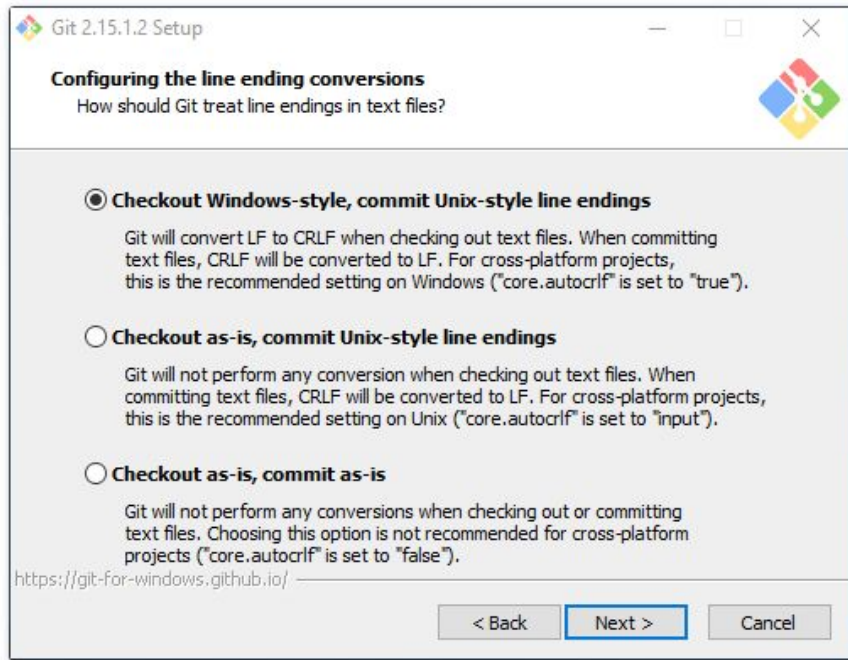
This will determine which text editor will open to input commit and other messages interactively. Go for Nano if you are not familiar with more complex editors like Vim





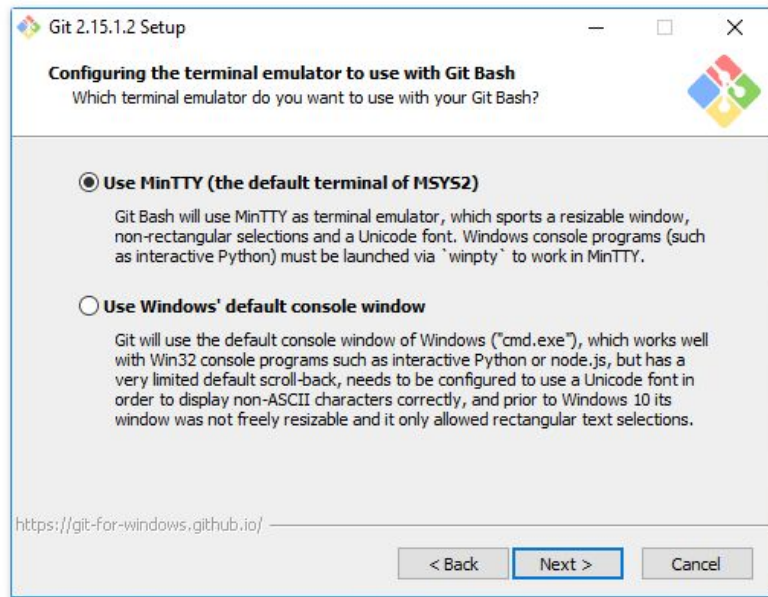
## Step 7. Configure Line Ending Conversions

Make sure you select "Checkout Windows-style, commit Unix-style line endings"



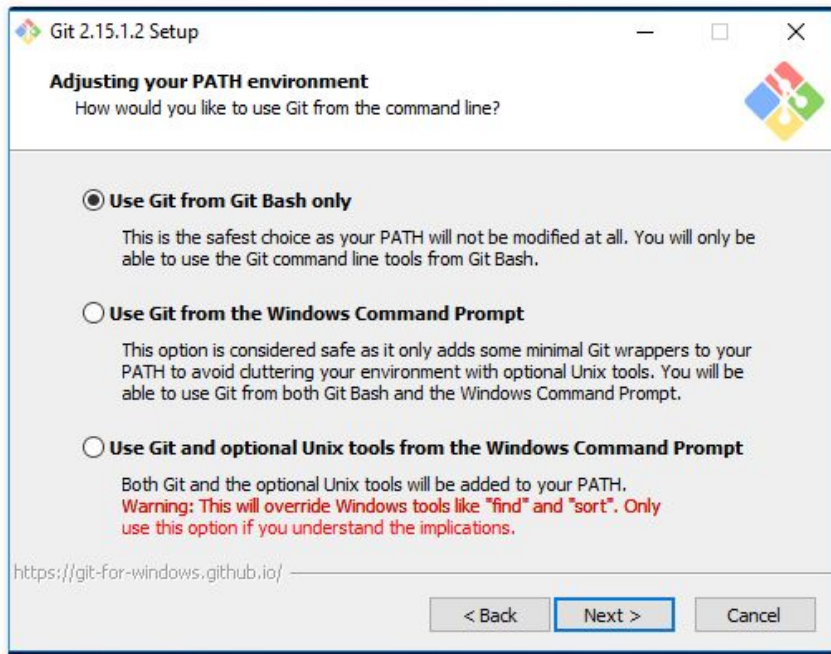
## Step 8. Configuring the Terminal Emulator

Select "Use MinTTY"



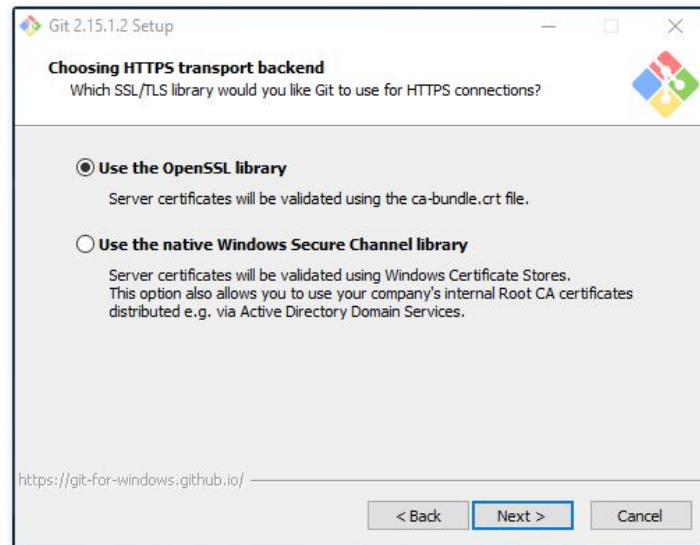
## Step 5. Adjust PATH Environment

Make sure you select "Use Git from Git Bash only"



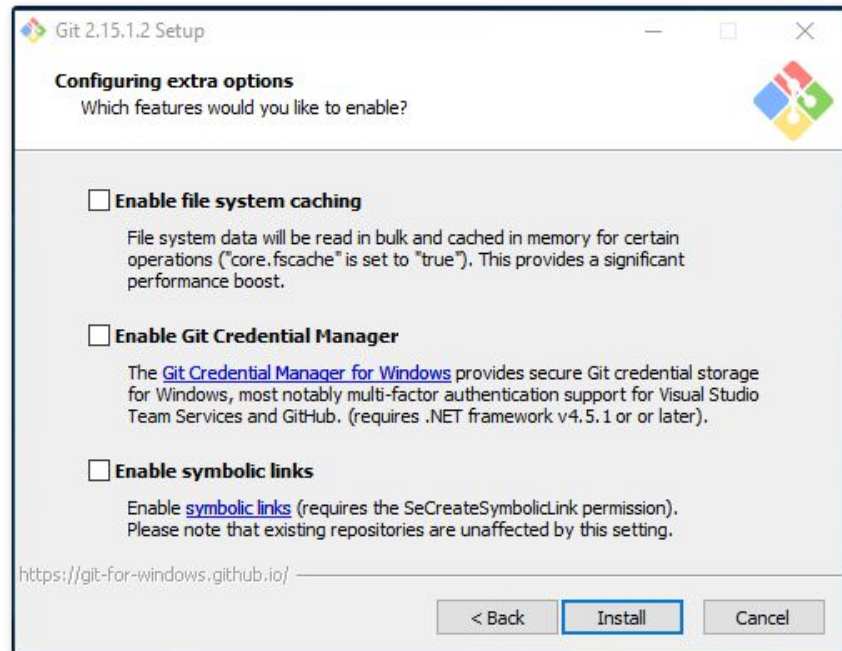
## Step 6. Select HTTPS transport

Specify the library to use for secure HTTP connections. Go for OpenSSL unless you have a reason to do otherwise



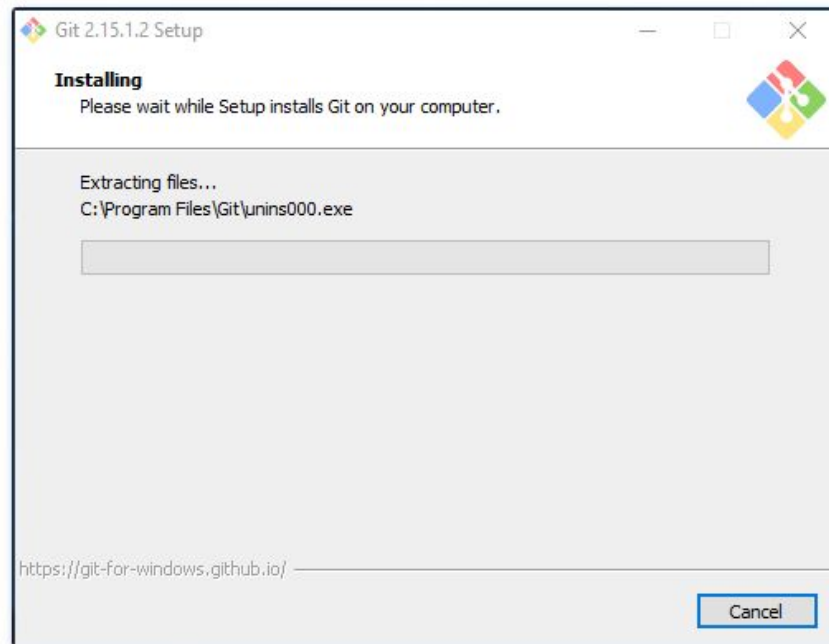
## Step 9. Extra options

Leave unchecked and click [Next >]



## Step 10. Progress Bar

Installation begins...





## Completing the Git Setup Wizard

Setup has finished installing Git on your computer. The application may be launched by selecting the installed shortcuts.

Click Finish to exit Setup.

- ☒ Launch Git Bash
- ☐ View Release Notes

Finish

## **GIT INSTALLATION ON LINUX SYSTEM -**

- ❖ Git installation on Linux -

```
# yum install git-all
```

OR

```
# sudo yum install git-all
```

Reference :

<https://git-scm.com/book/en/v2/Getting-Started-Installing-Git>

- ❖ to check if git installed successfully or not

```
# git --version
```

## Expected Interview Questions -

Q. Can we use Git on Mac Platform ?

Q. Is git a DVCS ?

Q. What are advantages of using Git ?

**THANK YOU**