

Getting Started with Minecraft

The purpose of this guide is to help you create a Minecraft server which allows 20 to 30 players to play in the same game-world at the same time. We at South Orange Public Library created a Minecraft interface that allows kids to gather at the library in order to play, learn and grow interactively. Although, there are several ways to create a Minecraft server, the following is our easy beginner's guide to creating your own.

To begin with, there are two separate parts to the Minecraft experience, the first is the client, or "player" based software that needs to be installed on each computer that is playing the game. Players that are running the client software have an option to connect to online servers, or to a game that is offered on a LAN "local area network". Keep in mind that online servers are monitored and controlled by other people, and can be joined by players outside your local group. The second part of the Minecraft game is a server based software package that can be installed on either a personal computer connected to your network, or onto a local server. We decided to create a server using an upgraded staff computer, then downloaded and installed the Minecraft server software. After installing and configuring the server package we hardwired the PC to our wireless network, started the software and shared our map across the wireless network. Placing an emphasis on creativity we can now control the environment that the kids are playing in, specify the number of players able to join, as well as creating exiting new custom worlds for everyone to explore.

This is an example of the Minecraft download page. Here you see the client and the server software downloads.

The image is a screenshot of the Minecraft website's 'Download' page. At the top, the 'MINECRAFT' logo is on the left, and navigation links for 'Home', 'Game', 'Community', 'Store', 'Profile', and 'Help' are in the center. On the far right, there are links for 'Log in' and 'Register'. The main heading is 'Download'. Below it, a paragraph explains that users can download a stand-alone launcher for Minecraft. The page is divided into two main sections: 'Minecraft for Windows' and 'Multiplayer Server'. A large red arrow with a white outline points from the right towards the 'Minecraft for Windows' section, with the text 'client based software' written inside it. Another large red arrow with a white outline points from the right towards the 'Multiplayer Server' section, with the text 'server based software' written inside it.

How to Set Up a Minecraft Server

To use the Minecraft server, you will need to have a Minecraft account. We suggest that a library Minecraft account should be purchased. Visit www.minecraft.net to find the details about registering and buying a library Minecraft account.

NOTE: MinecraftEdu gives reduced rates for non-profit organizations like libraries. Just visit www.minecraftedu.com to find out more.

CHOOSING YOUR SERVER

Choose a desktop computer that can be used as your server.

You may use any computer as your server, but while the Minecraft server is running, this computer should not be used for any other purpose. We chose an old staff computer, upgraded and repurposed it as our Minecraft server.

For a better gaming experience, the computer that you will be using as your server should be connected to your internet router via an Ethernet cable. (I.e. It should be hardwire connected. If you are using a staff desktop computer, chances are that it is already hardwired rather than connecting to your router wirelessly).

The following link elaborates on Minecraft System requirements.

<https://help.mojang.com/customer/portal/articles/325948-minecraft-system-requirements>

1) SET STATIC IP

Every time a computer is turned on, it is assigned a different IP address. A Static IP is a manually configured IP address that will not change every time the computer is turned on. The purpose of setting a static IP is to give your players easy access to the game server.

The following links will guide you in setting up a Static IP address for your computer.

Windows XP:

https://www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/sag_tcpip_pro_manualconfig.mspx?mfr=true

Windows 7: <http://windows.microsoft.com/en-us/windows7/change-tcp-ip-settings>

2) CREATE LOCATION FOR SOFTWARE

Create a new folder on your desktop, and name it “Minecraft”

3) DOWNLOAD MINECRAFT SOFTWARE

Download the “Multiplayer Server” for Windows from the link below

<https://minecraft.net/download>

MINECRAFT Home Game Community Store Profile Help

Download

When you have bought the game, you can download the stand-alone launcher for Minecraft here. It will automatically update the game files with the latest version. You'll be able to play the game without an Internet connection if you've been online at least once.

Minecraft for Windows

Download [Minecraft.exe](#). Place it anywhere you want, then run it.

[Show all platforms](#)

The Minecraft launcher was updated 01 July 2013. To get latest version of the game, make sure that you have downloaded the latest version of the launcher from the link above.

Multiplayer Server

If you're running on Windows and just want to set up a server easily, download [minecraft_server.1.6.4.exe](#) and run it.

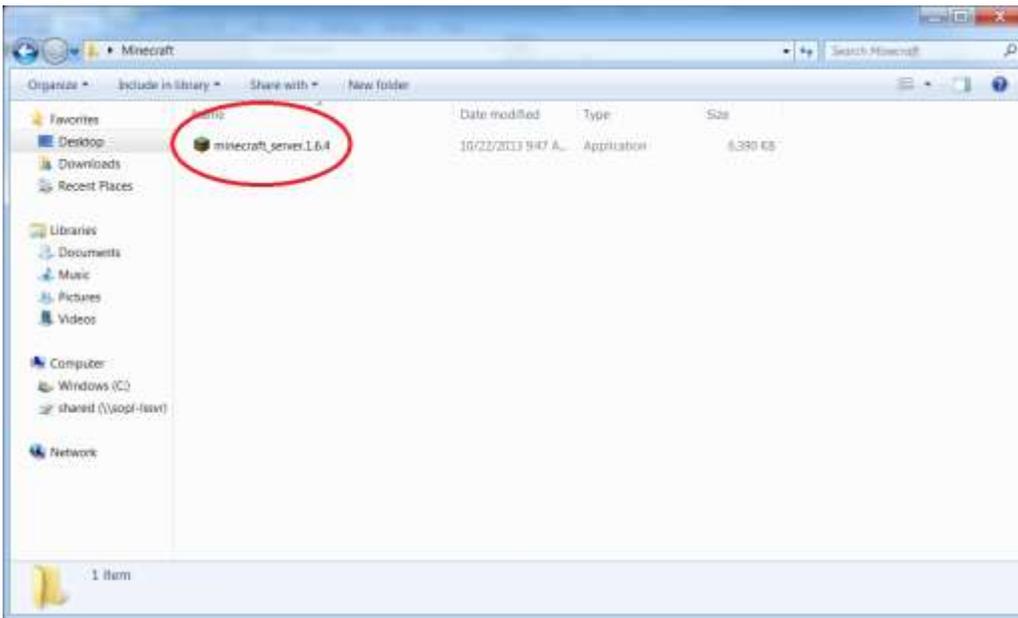
If you want to run the server on any other OS or without GUI it's a bit more involved (see [this wiki article for a tutorial](#)). First make sure you can use `java` from the command line. On Linux and Mac OS X this should already be set up but on Windows you might have to finker with the `PATH` environment variable. Download and run [minecraft_server.1.6.4.jar](#) with `java -Xms1024M -Xmx1024M -jar minecraft_server.jar nogui`.

Once you have finished downloading the software, copy and paste the `Minecraft_Server.exe` file into your "Minecraft" folder on your desktop.

This is what the file you have downloaded will look like:



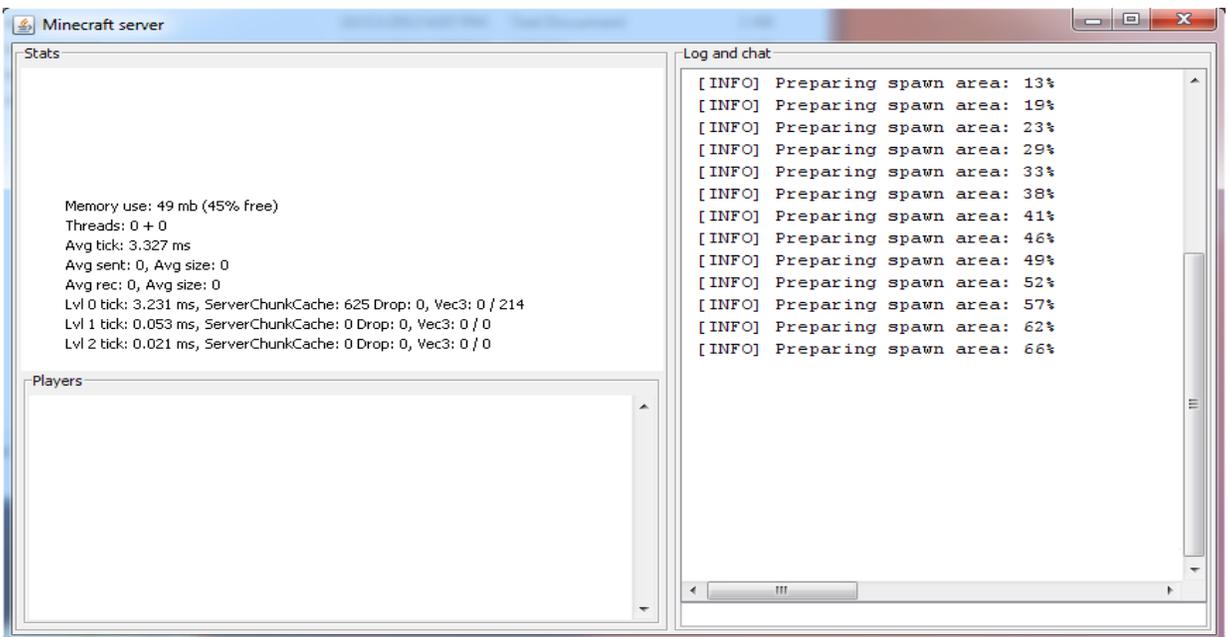
Open the "Minecraft" folder on your desktop.



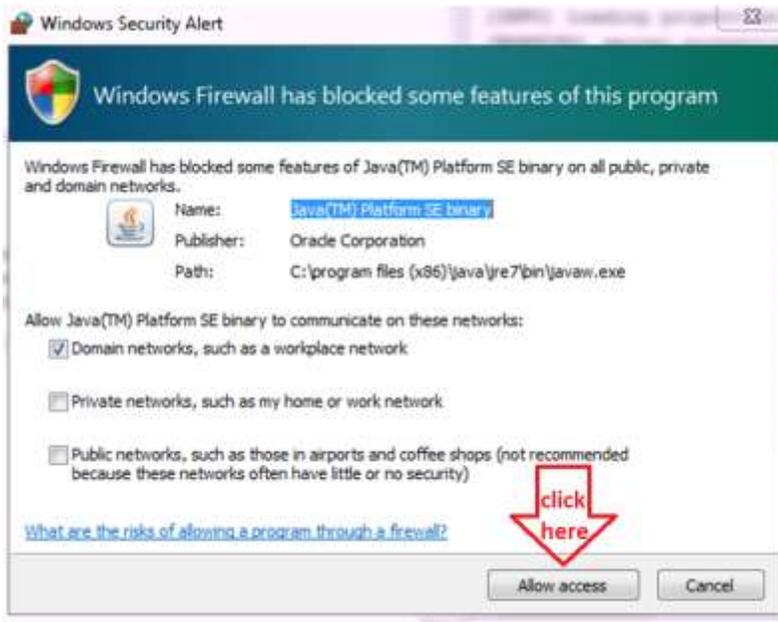
4) Starting the server

Double click on the “Minecraft_Server” file. This will launch the Minecraft server.

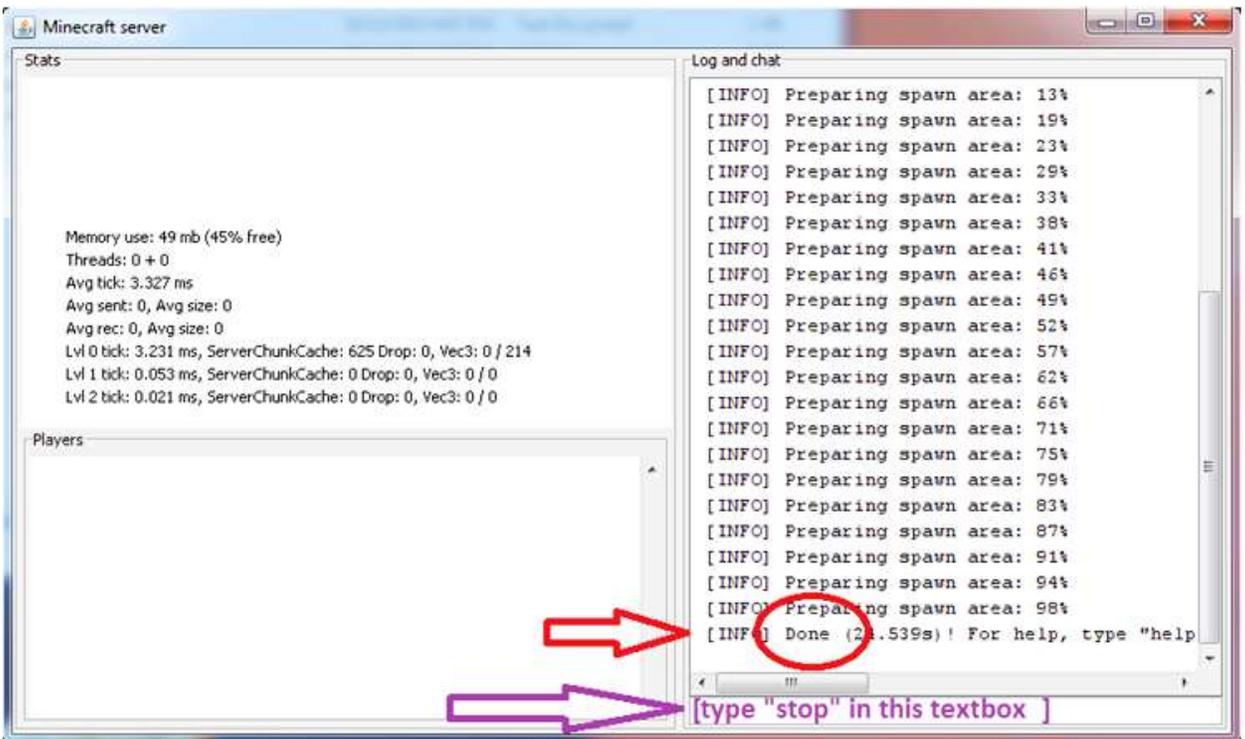
Please allow 30 seconds to a minute for the following window to appear.



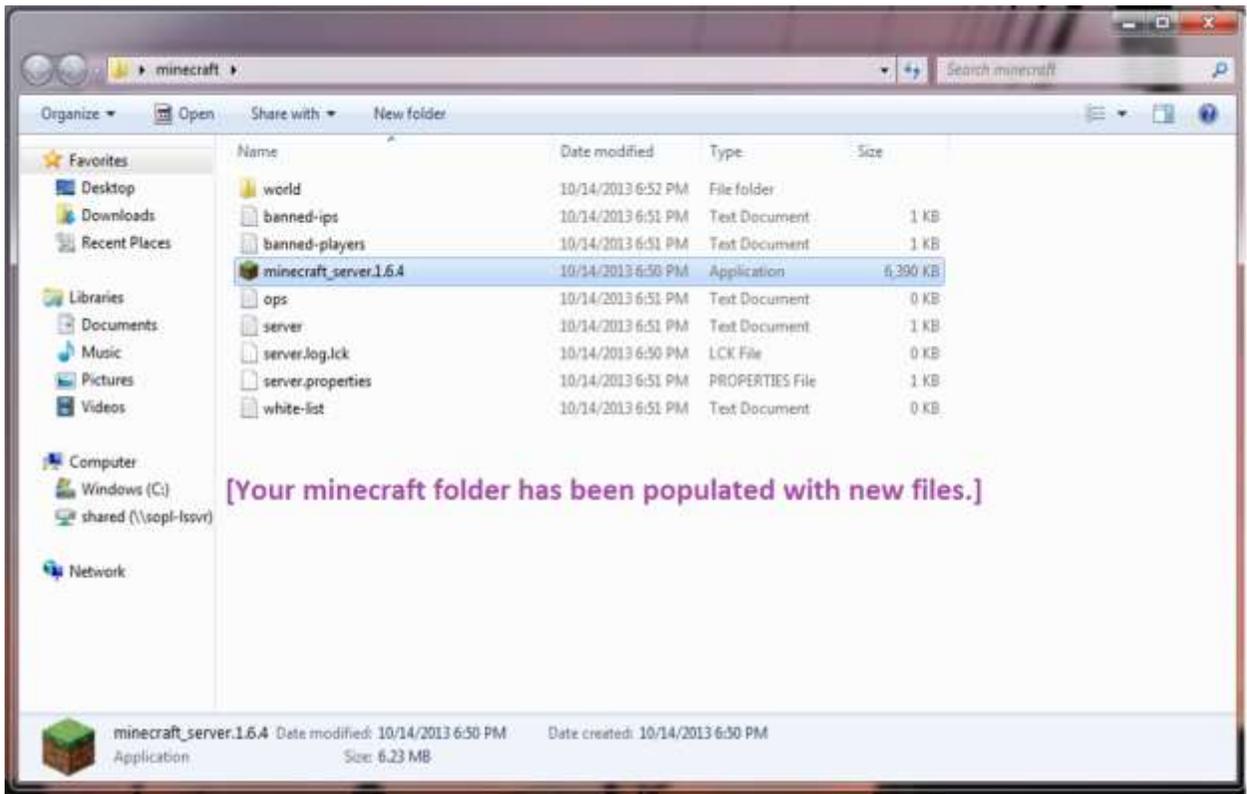
If the following screen pops up, please select “Allow Access”



Once the “Log and chat” box displays “Done” as shown below, type “stop” (lower case letters only) in the textbox at the bottom of the page.

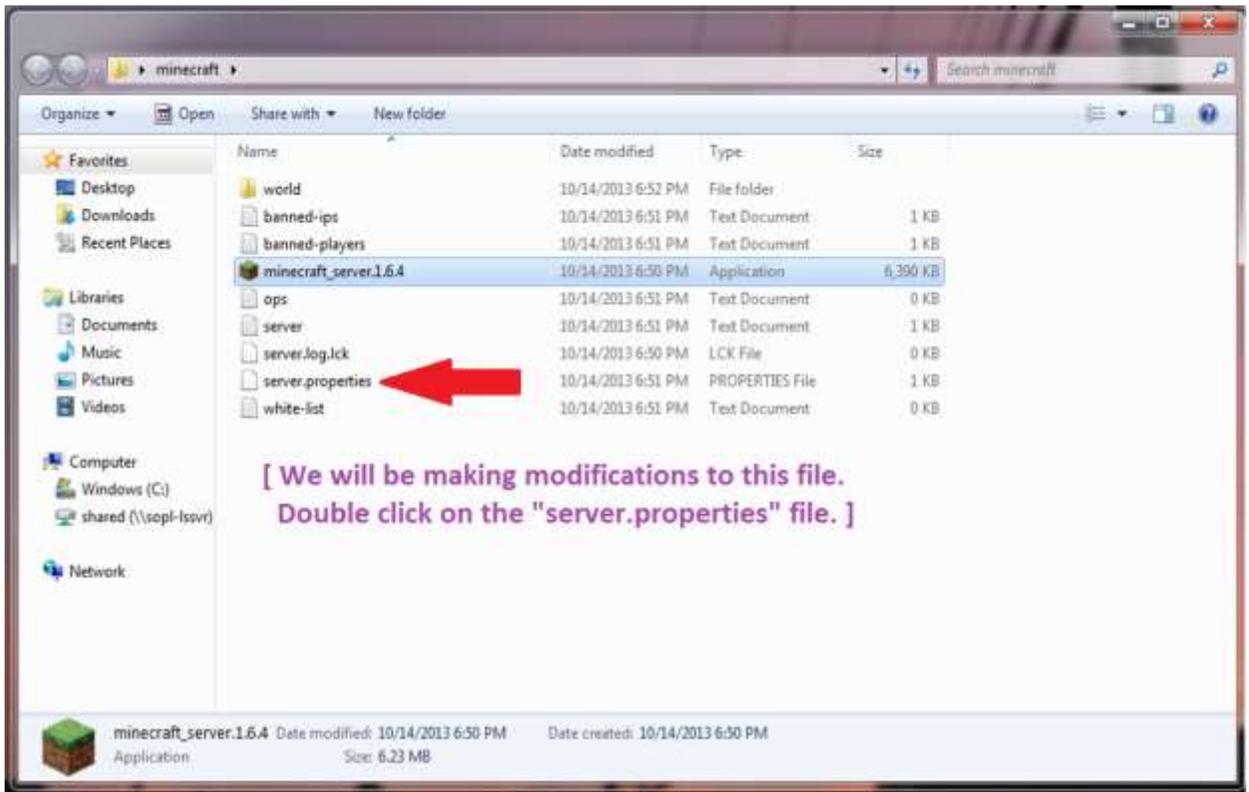


The first time you run this file, it will populate your “Minecraft” desktop folder with new files which are needed to run the Minecraft Server.

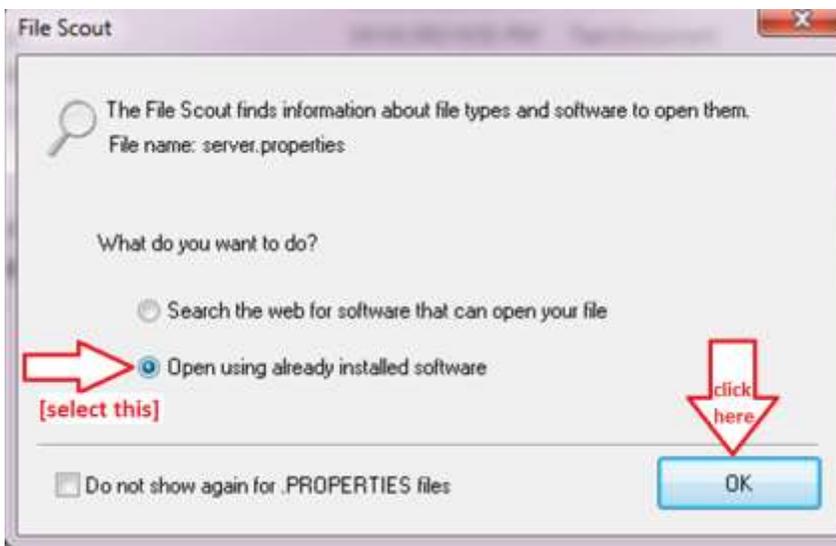


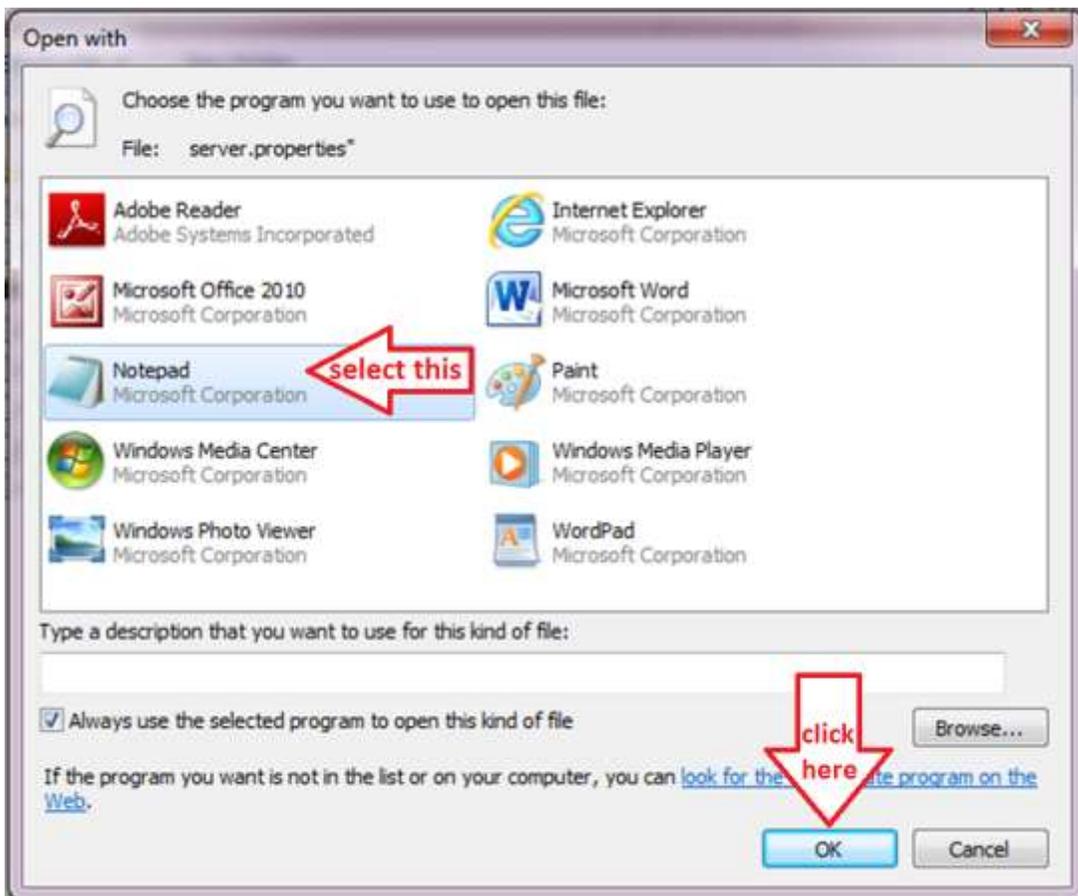
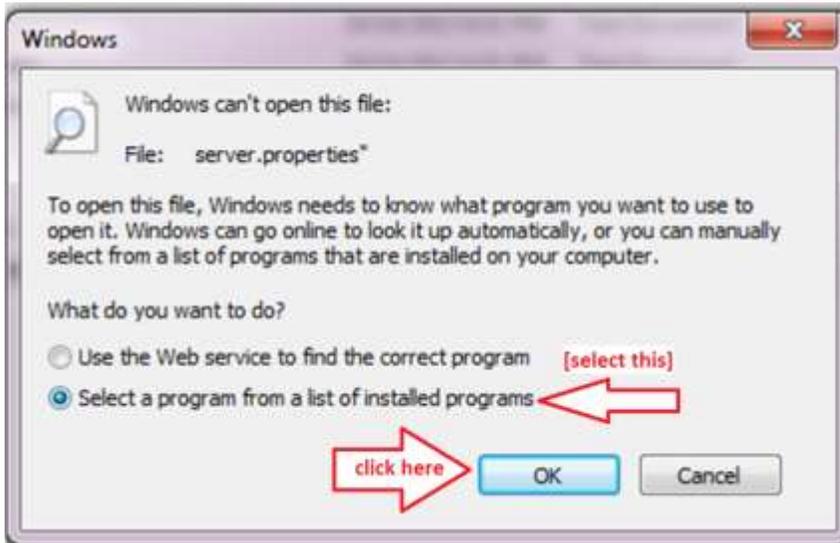
The following is OPTIONAL:

The “server.properties” file allows you to customize the options players will have when they are playing Minecraft.

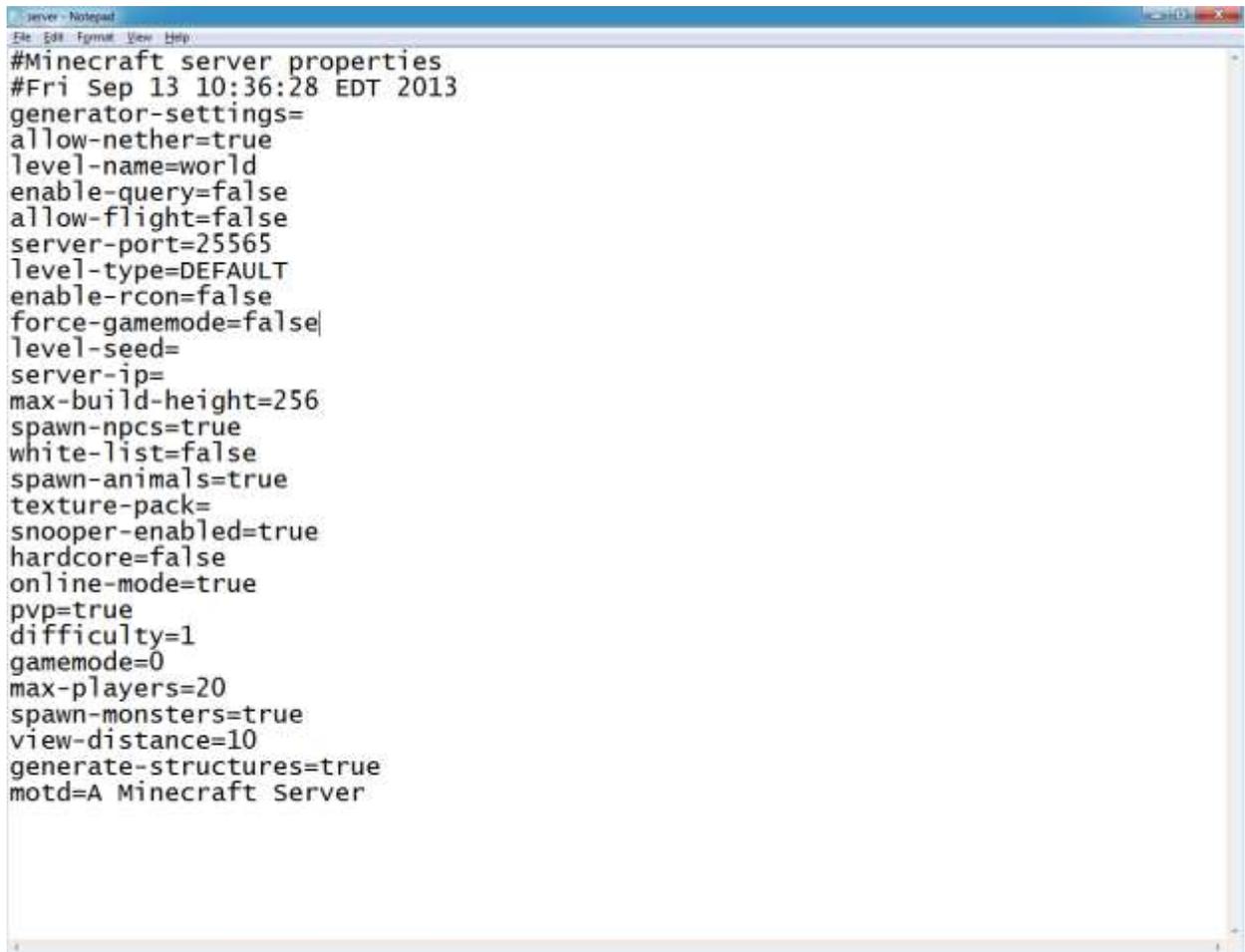


The following screen will pop up. Select “Open using already installed software” and then click “OK”.





The following window will open up.

A screenshot of a Notepad window titled "server - Notepad". The window contains the following text:

```
#Minecraft server properties
#Fri Sep 13 10:36:28 EDT 2013
generator-settings=
allow-nether=true
level-name=world
enable-query=false
allow-flight=false
server-port=25565
level-type=DEFAULT
enable-rcon=false
force-gamemode=false
level-seed=
server-ip=
max-build-height=256
spawn-npcs=true
white-list=false
spawn-animals=true
texture-pack=
snooper-enabled=true
hardcore=false
online-mode=true
pvp=true
difficulty=1
gamemode=0
max-players=20
spawn-monsters=true
view-distance=10
generate-structures=true
motd=A Minecraft Server
```

You can make the following modifications on the Notepad file.

`force-gamemode=` Set this to “true” from “false” in order to enforce game rules

`max-players=` Sets the maximum amount of players

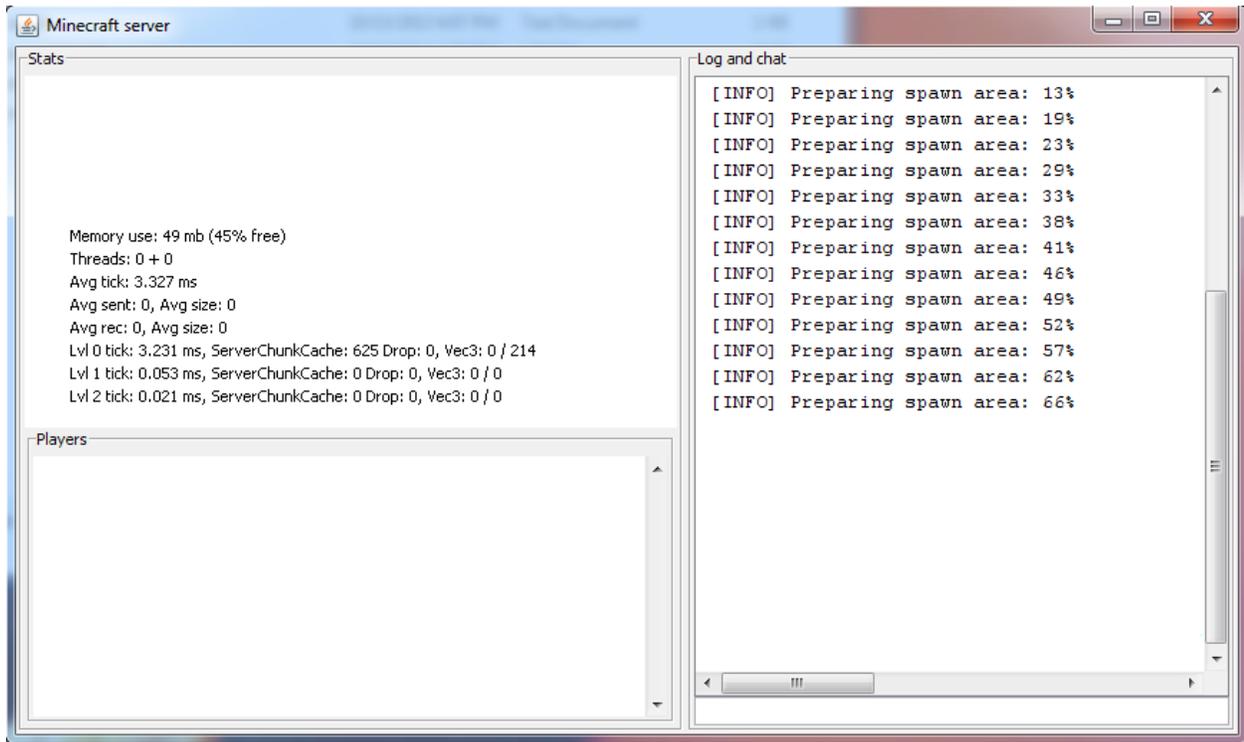
`pvp=` Player vs. player set to “false” from “true” to stop players from hurting each other

`gamemode=` 0 is Survival Mode 1 is Creative Mode. We chose creative, all players are given every item, and there are no monsters.

`motd=` This is the Message presented to users that join your server. You can choose to write any message that you would like.

Other setting can be altered at your own discretion.

Now that the server installation has been completed, you are ready to set up the client (player) side and start playing the game. Turn on your Minecraft server and make sure the software is running. While you are running the Minecraft Server, you should have the following window open on your screen.



How to Set Up the Minecraft Client Software

To begin the installation, you will have to download the client based software on each laptop or computer that will be used to play the game. The software can be found at the following link:

<https://minecraft.net/download>

MINECRAFT Home Game Community Store Profile Help Log in | Register

Download

When you have bought the game, you can download the stand-alone launcher for Minecraft here. It will automatically update the game files with the latest version. You'll be able to play the game without an Internet connection if you've been online at least once.

Minecraft for Windows

Download [Minecraft.exe](#). Place it anywhere you want, then run it.

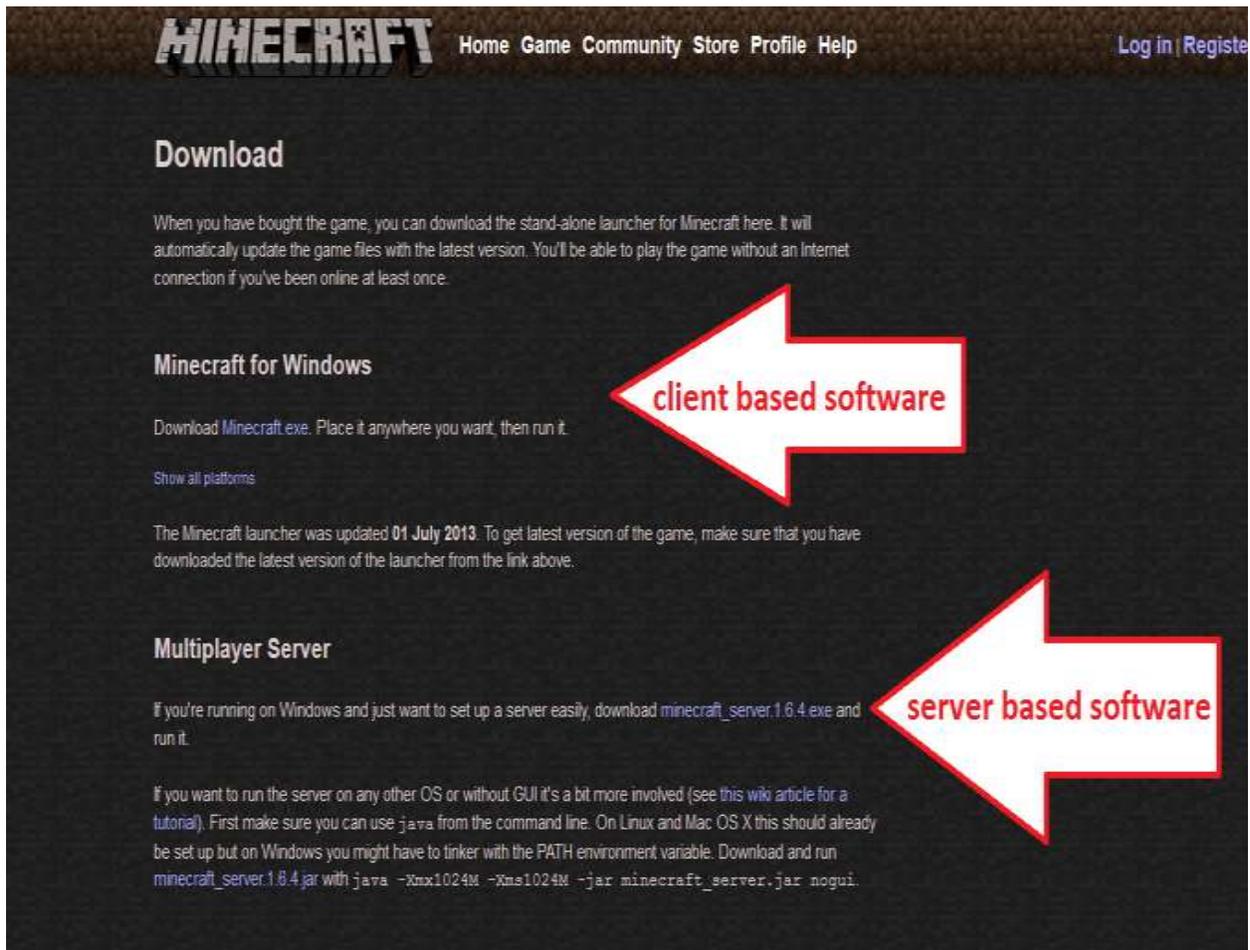
[Show all platforms](#)

The Minecraft launcher was updated **01 July 2013**. To get latest version of the game, make sure that you have downloaded the latest version of the launcher from the link above.

Multiplayer Server

If you're running on Windows and just want to set up a server easily, download [minecraft_server.1.6.4.exe](#) and run it.

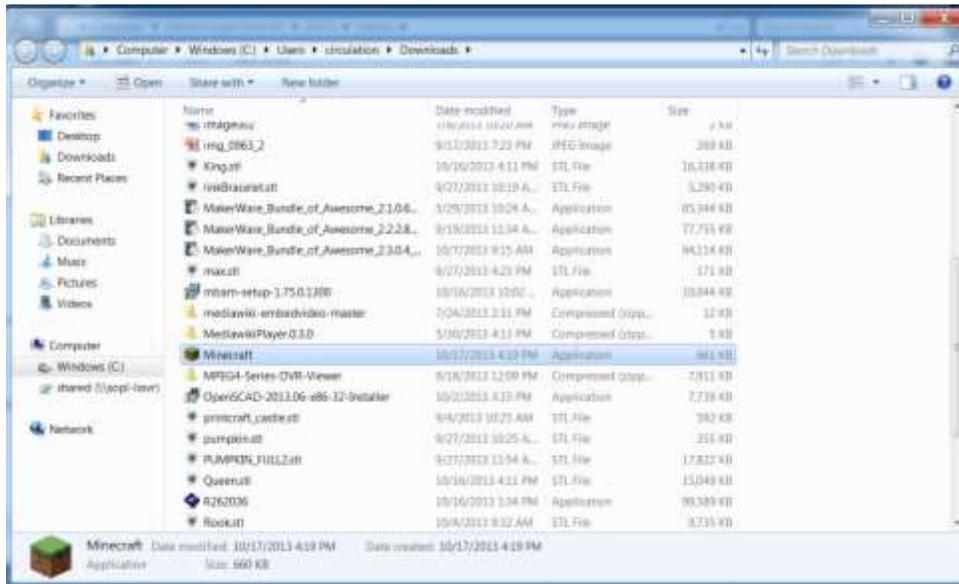
If you want to run the server on any other OS or without GUI it's a bit more involved (see [this wiki article](#) for a tutorial). First make sure you can use `java` from the command line. On Linux and Mac OS X this should already be set up but on Windows you might have to tinker with the `PATH` environment variable. Download and run `minecraft_server.1.6.4.jar` with `java -Xmx1024M -Xms1024M -jar minecraft_server.jar nogui`.



When the following window appears, select “Save File”.



After downloading the software, move the Minecraft.exe file onto your desktop so it is available the next time you want to play the game.



To run the client based software and start playing Minecraft, double click on the Minecraft.exe file on your desktop.

After you have launched Minecraft, you will see the following window. Sign in with your Minecraft account details and click “Log in”. If you don’t already have an account, you can click “Register” and create a Minecraft account to use.



After you have logged onto Minecraft, click “Play”.



Now you are ready to connect the client based Minecraft software to your server. (WOOHOO~~) Click on “Multiplayer” to set up and connect to your Minecraft Server.



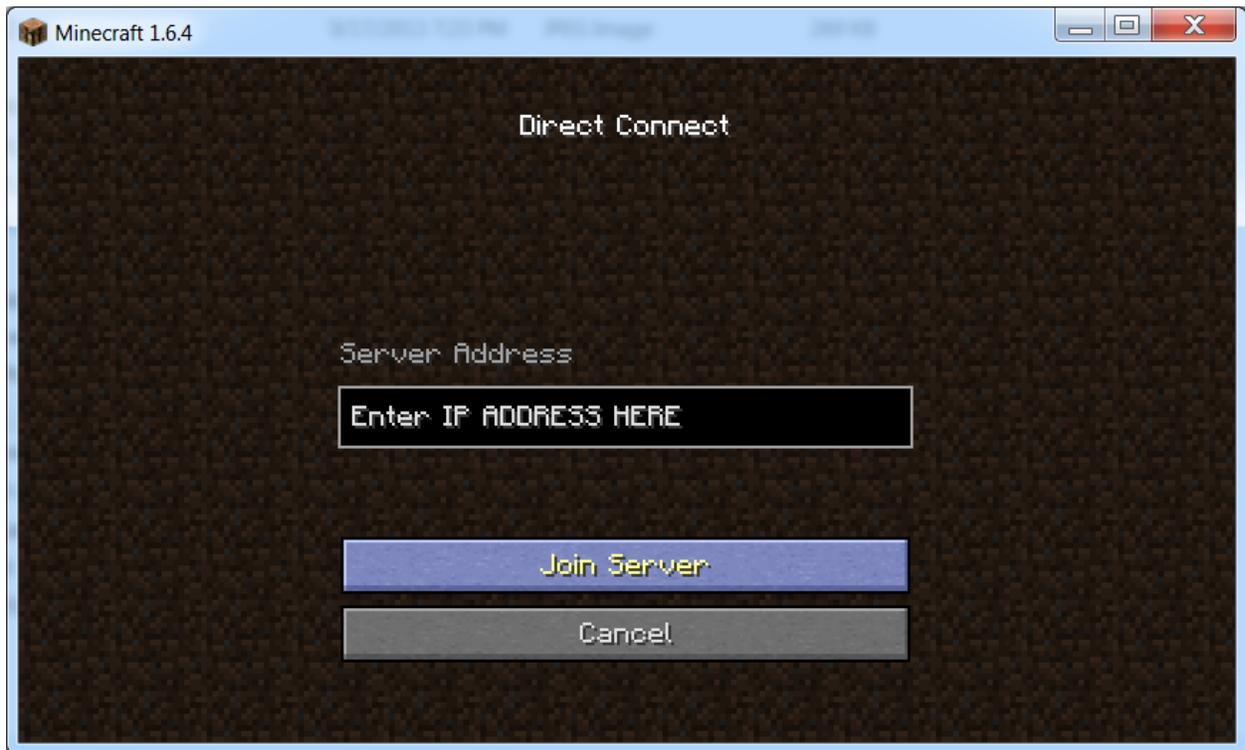
If this Java message appears, simply click “Allow access”. This window will not appear again.



To connect to your Minecraft Server, click on “Direct Connect”.



Now type in the Static IP ([mentioned here](#)) that you set on your Minecraft Server computer into the space provided under “Server Address” and click “Join Server”.



Congratulations! You have successfully created a Minecraft Server and connected players on different laptops or computers. Now it's time to enjoy a collective creative Minecraft experience. Unleash your imaginations!