

Gameboy development quickstart guide

The Nintendo Gameboy is a handheld console released by Nintendo in 1989

This guide will provide the steps to get set up to develop games for the system on Windows in C



1. Software needed

For this guide you will need to have some software already installed.

1. Something to unzip a file
I'm using winRar in the example
<https://www.win-rar.com/start.html?&L=0>
2. Something to edit code
Visual Studio Code will work
<https://code.visualstudio.com/download>

3. An emulator to run your game

BGB is a great emulator for development because it includes built in debugging features

<https://bgb.bircd.org/#downloads>

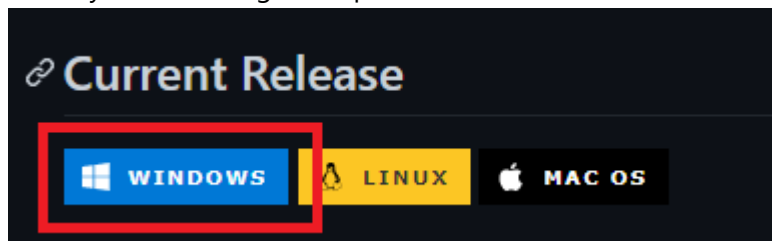
2. Setting up your environment

GBDK

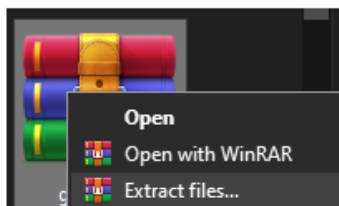
The best place to start is with downloading the GameBoy Development Kit (GDBK). This software development kit (SDK) will give you all of the tools and libraries that you will need to get started, as well as some example projects.

- The most up to date version of GDBK can be found here:
<https://github.com/gbdk-2020/gbdk-2020>

- Start by downloading the .zip file for windows



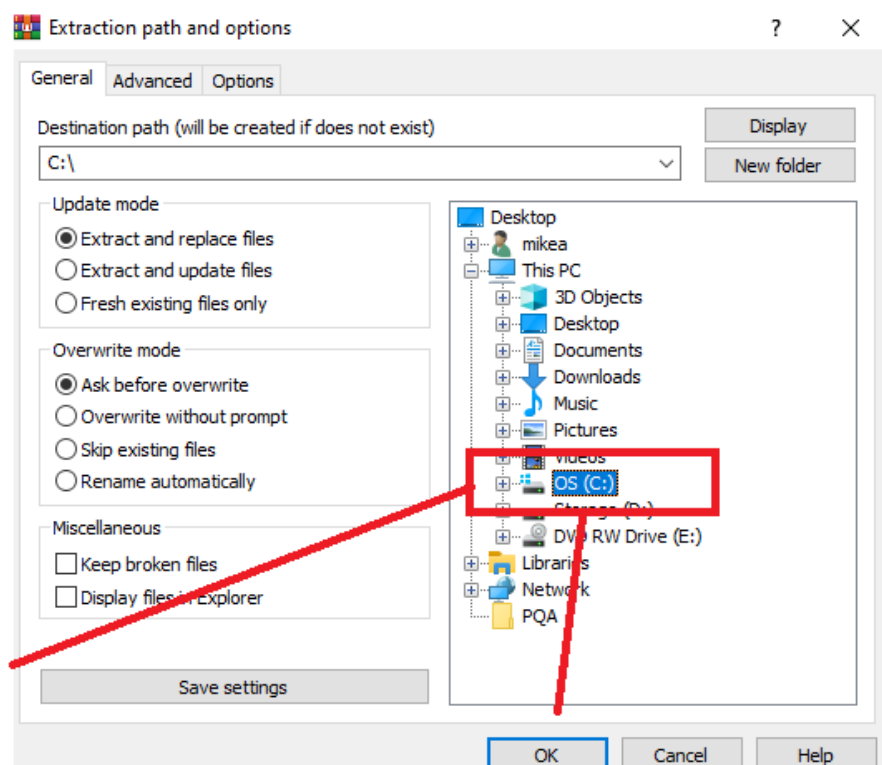
- Once downloaded, extract to the root of your C:// drive



Right click on the zip file and then click "Extract files..."

This will open the following window

Select you main developemt drive and click OK



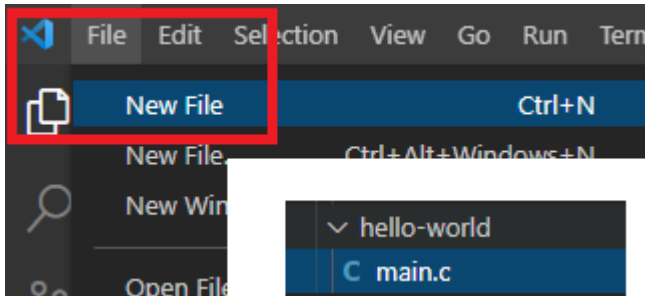
3. First Project

Hello World

Let's start off simple by creating a project that displays text on the screen.

3.1 First create a new C file and save it to your project directory.

Here I've created a file titled "main.c" in my hello-world directory



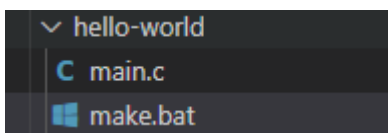
In that file we will include the gbk library. Add the following to the top of your "main.c"

```
#include <gb/gb.h>
#include <stdio.h>
```

Next let's create a simple main function to print our text

```
void main()
{
    printf("Hello World!");
}
```

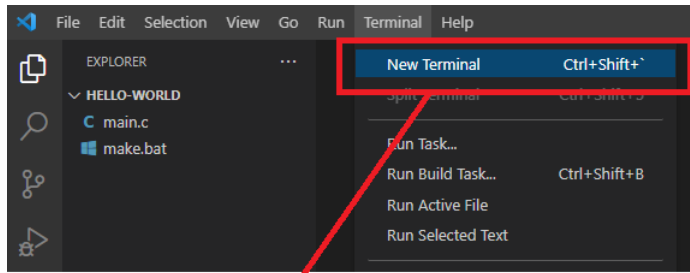
3.2 At this point we also need to create a second file called "make.bat" in the same directory



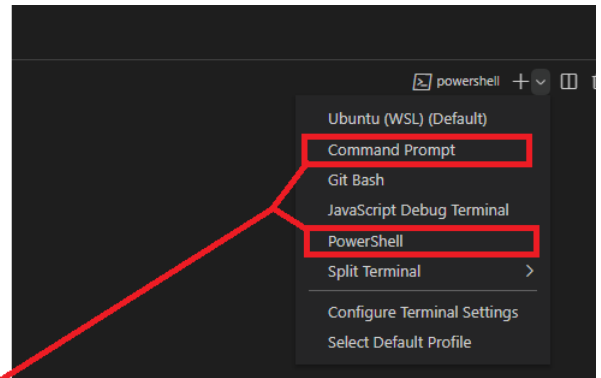
Add the following two lines of code to your make.bat file

```
c:\gbdk\bin\lcc -Wa-l -Wl-m -Wl-j -DUSE_SFR_FOR_REG -c -o main.o main.c
c:\gbdk\bin\lcc -Wa-l -Wl-m -Wl-j -DUSE_SFR_FOR_REG -o main.gb main.o
```

Once these two files are set up we'll need to open a terminal in the project directory



Open new terminal window in VS Code

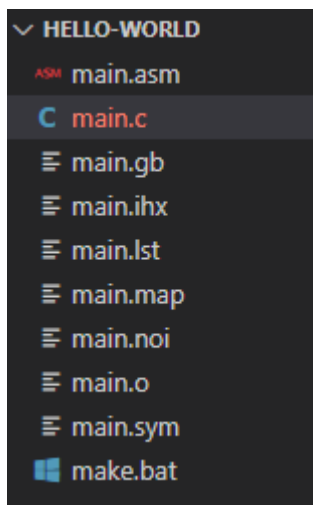


In the terminal window make sure that you are using either Command Prompt or PowerShell for the next step

In the terminal type the following command and press enter

```
.\make.bat
```

Running this command will create a multitude of files on your directory



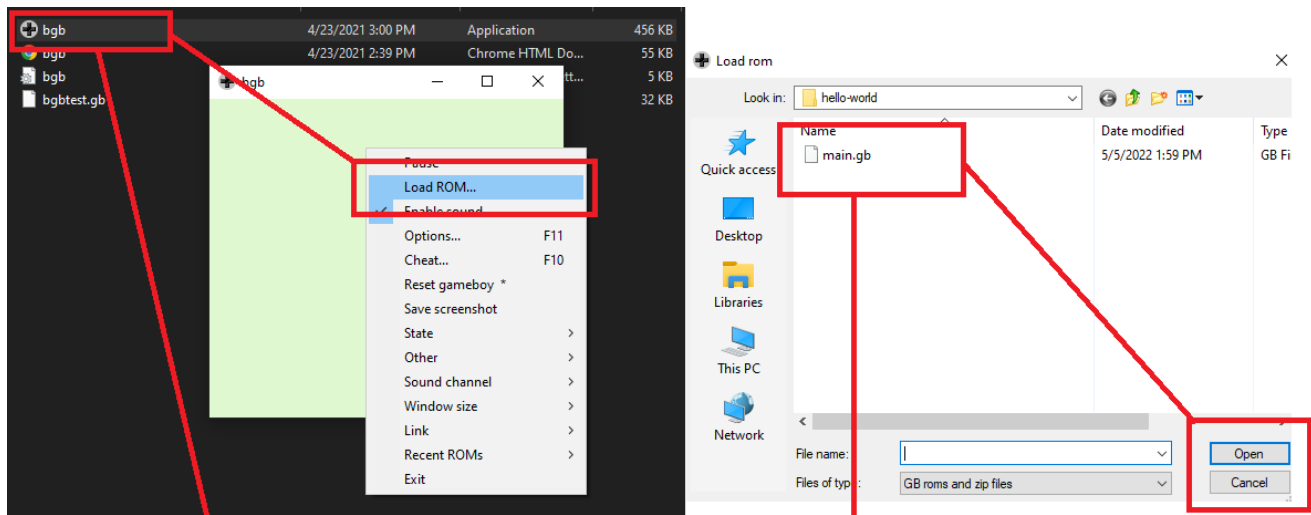
The most important file is "main.gb"

This is the gameboy file that you will be able to run on either hardware or a gameboy emulator

4. Playing your game

GDB

The final step is to load up your rom (main.gb) into an emulator



After extracting BGB click the bgb.exe to open the program
Then right click on the program to show a context menu and click "Load ROM..."

Navigate to your project directory and open your main.gb file

And there you have it, your first gameboy game!

