

# Making GTK Functional in Geany on a Raspberry Pi

## Geany Compile or Build Fault Report:

**gtk/gtk.h: No such file or directory**



```
gcc -Wall -c "geany_gtk_setup.c" (in directory: /home/pi/Documents/C_Programs)
geany_gtk_setup.c:14:10: fatal error: gtk/gtk.h: No such file or directory
   #include <gtk/gtk.h>
           ~~~~~
compilation terminated.
Compilation failed.
```

# Raspberry Pi and Geany

- The newer Raspberry Pi OS:
  - <https://www.raspberrypi.org/downloads/>
  - **GEANY v 1.33** pre-loaded
    - Code Name: “Gordon”
  - **Decent little programmer**
    - Versatile
    - Free
    - Works



# Geany “C” or “C++” Programming

- Geany can be used to write code for both:
  - “C” and “C++” files.
  - Other languages as well.
- Geany can be used to compile  code for both:
  - “C” and “C++” files.
  - Other languages as well.
- Geany can be used to build  code for both:
  - “C” and “C++” files.
  - Other languages as well.

# Geany - GTK Compile or Build Fault

- Out of the box.. when trying to “Compile” or “Build” a C (.c) or C++ (.cpp) type file which includes the following **#include** statement:

**#include <gtk/gtk.h>**

- The following fatal error occurs:

```
gcc -Wall -c "geany_gtk_setup.c" (in directory: /home/pi/Documents/C_Programs)
geany_gtk_setup.c:14:10: fatal error: gtk/gtk.h: No such file or directory
   #include <gtk/gtk.h>
           ~~~~~
compilation terminated.
Compilation failed.
```

# C Language Example

```
gtk_setup_for_C.txt × gtk_setup_for_C++.txt × geany_gtk_setup.c × geany_gtk_setup.cpp ×
1
2 //
3 // *****
4 //
5 // September 24-2020
6 //
7 // Code written on a Raspberry Pi 3B, using Geany v1.33.
8 //
9 // Notes: Test GTK Set-up in Geany with C
10 //
11 // *****
12 //
13
14 #include <gtk/gtk.h>
15
16
17
18 void set_DAC01()
19 {
20     printf("Will #include <gtk/gtk.h> actually work in C ?");
21 }
22
```



```
gcc -Wall -c "geany_gtk_setup.c" (in directory: /home/pi/Documents/C_Programs)
geany_gtk_setup.c:14:10: fatal error: gtk/gtk.h: No such file or directory
#include <gtk/gtk.h>
           ^~~~~~
compilation terminated.
Compilation failed.
```



- Compile / Build Error:

# C++ Language Example

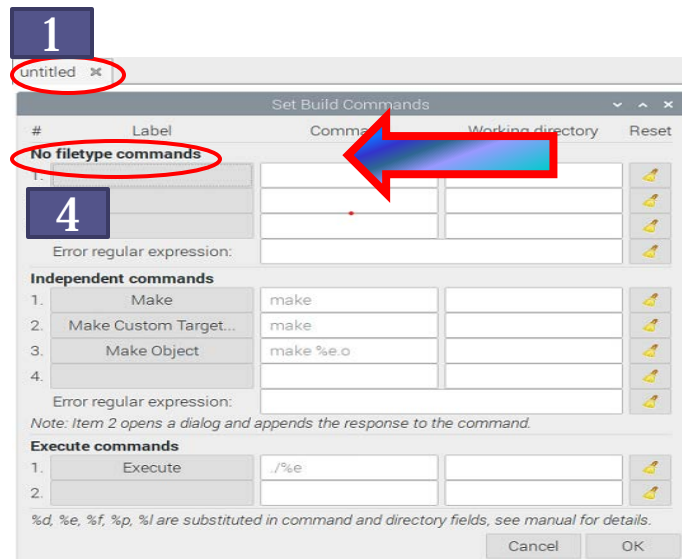
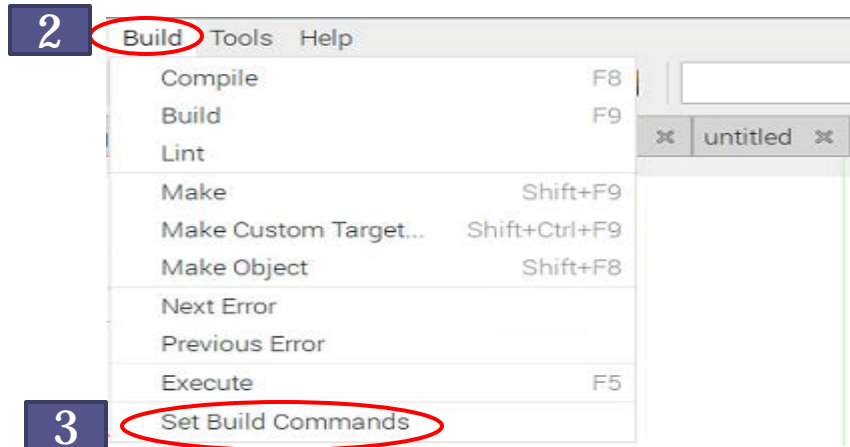
```
gtk_setup_for_C.txt ✕  gtk_setup_for_C++.txt ✕  geany_gtk_setup.c ✕  geany_gtk_setup.cpp ✕
1
2  //
3  // *****
4  //
5  // September 24-2020
6  //
7  // Code written on a Raspberry Pi 3B, using Geany v1.33.
8  //
9  // Notes: Test GTK Set-up in Geany with C++
10 //
11 // *****
12 //
13
14 #include <gtk/gtk.h>
15
16
17
18 void set_DAC01()
19 {
20     printf("Will #include <gtk/gtk.h> actually work in C++ ?");
21 }
22
```

```
g++ -Wall -c "geany_gtk_setup.cpp" (in directory: /home/pi/Documents/C_Programs)
geany_gtk_setup.cpp:14:10: fatal error: gtk/gtk.h: No such file or directory
   #include <gtk/gtk.h>
           ~~~~~
compilation terminated.
Compilation failed.
```

- Compile / Build Error:

# There is a Fix to this Problem

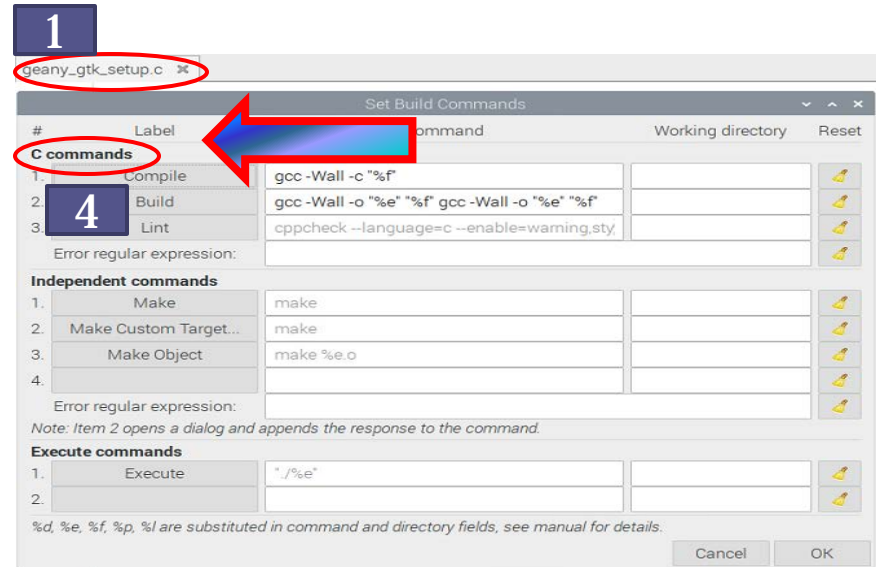
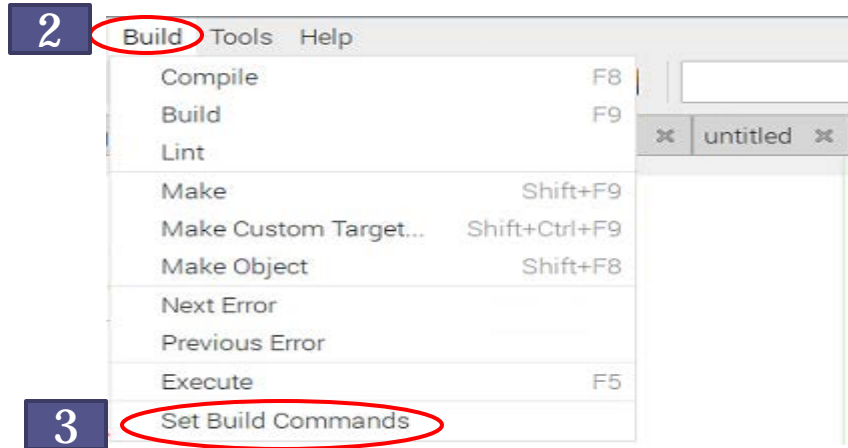
- The key to resolving this issue:



- Active window (1) is blank, or NOT a C/C++ file type so in this case you CANNOT access the File Type Commands (4) you need to change.

# Load a C type of file in the programming window

- Load a “C” type file (3):

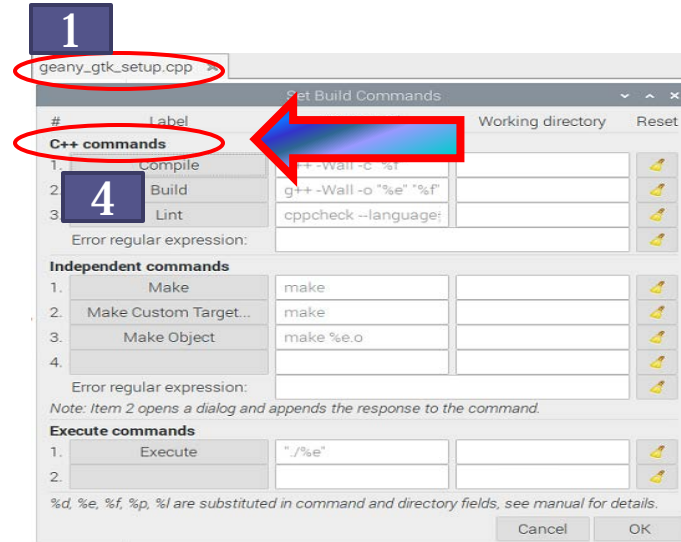
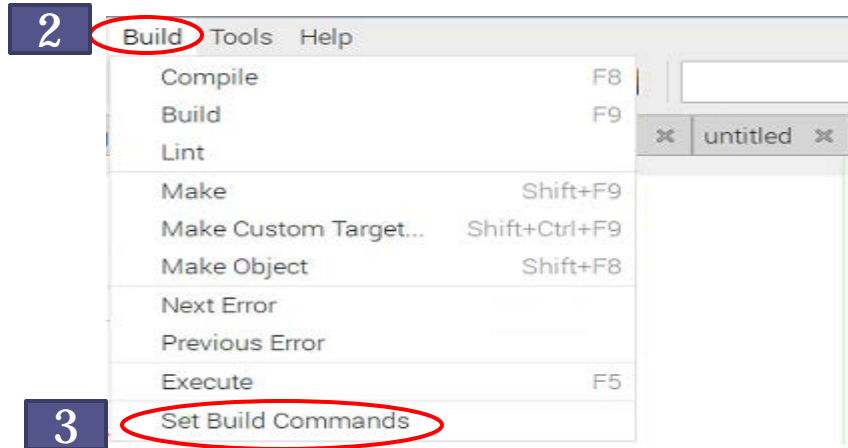


- Active window (1) is NOW a C file type so in this case you CAN access the C Commands (4) you need to change.



# Load a C++ type of file in the programming window

- Load a “C++” type file (3):



- Active window (1) is NOW a C++ file type so in this case you CAN access the C++ Commands (4) you need to change.

# Make the following changes to BOTH File Type:

- To the “Set Build Commands” for both of the “File Types” add some parameters to the default entries:
- 3.0 for GTK 3.0 and 2.0 for GTK 2.0

- **Compile:**

- 1** ▫ Add the following: ``pkg-config --cflags gtk+-3.0`` **3**
- From: `gcc -Wall -c "%f"`
  - To: `gcc -Wall -c "%f" `pkg-config --cflags gtk+-3.0``

- **Build:**

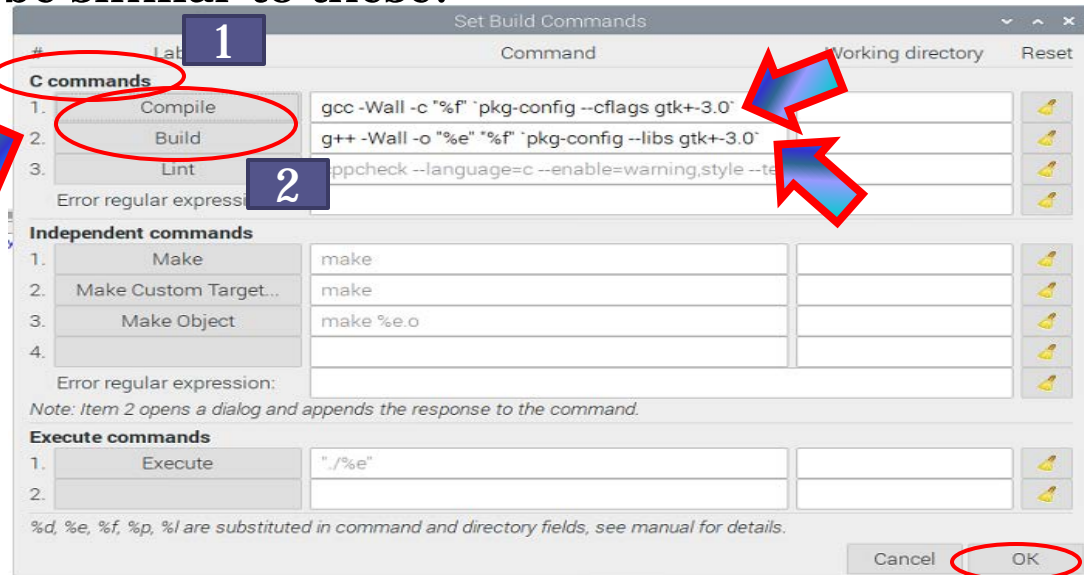
- 2** ▫ Add the following: ``pkg-config --libs gtk+-3.0`` **4**
- From: `gcc -Wall -o "%e" "%f"`
  - To: `gcc -Wall -o "%e" "%f" `pkg-config --libs gtk+-3.0``

## Entries Results (stretch right side of box):

- The “Set Build Commands” for **each** of the two “File Types” should now be similar to these:

- Do this for each C and for C++

- For each instance click on OK to save entries.



## Test: C - Compile / Build Results:

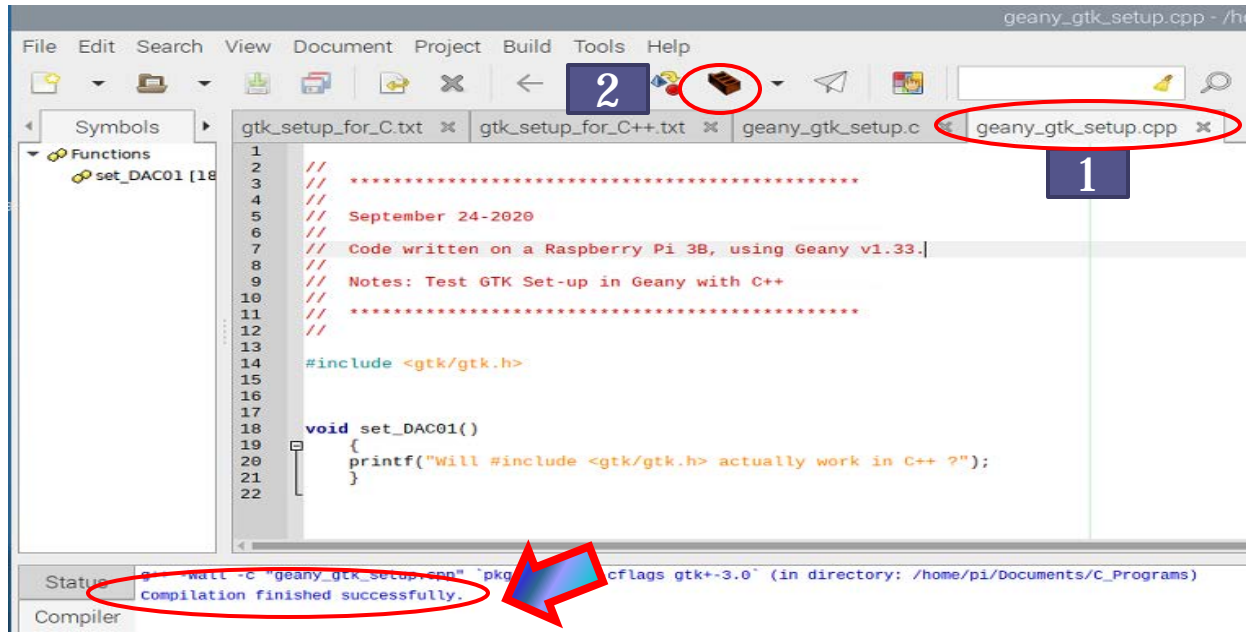
- Try compiling or building a simple C file:

```
File Edit Search View Document Project Build Tools Help
[Icons] [2] [Build Button] [Search]
Symbols
  Functions
    set_DAC01 [18]
gtk_setup_for_C.txt x gtk_setup_for_C++.txt x geany_gtk_setup.c x geany_gtk_setup.cpp x
1 //
2 //
3 // *****
4 //
5 // September 24-2020
6 //
7 // Code written on a Raspberry Pi 3B, using Geany v1.33.
8 //
9 // Notes: Test GTK Set-up in Geany with C
10 //
11 // *****
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13
14 #include <gtk/gtk.h>
15
16
17
18 void set_DAC01()
19 {
20     printf("Will #include <gtk/gtk.h> actually work in C ?");
21 }
22

Status gcc -Wall -c "geany_gtk_setup.c" -pkg- -cflags gtk+-3.0 (in directory: /home/pi/Documents/C_Programs)
Compiler Compilation finished successfully.
```

## Test: C++ - Compile / Build Results:

- Try compiling or building a simple C++ file:



The screenshot shows the Geany IDE interface. The main editor window displays a C++ file named `geany_gtk_setup.cpp`. The code includes a header file and a function `set_DAC01()` that prints a message. The status bar at the bottom shows the compilation command and the result: `g++ -c "geany_gtk_setup.cpp" -pkg... cflags gtk+-3.0' (in directory: /home/pi/Documents/C_Programs)` and `Compilation finished successfully.`. A red arrow points to the status bar. A blue box with the number '1' is positioned over the file name in the tab bar, and another blue box with the number '2' is positioned over the Build button in the toolbar.

```
1 // .....
2 // .....
3 // .....
4 // .....
5 // September 24-2020
6 // .....
7 // Code written on a Raspberry Pi 3B, using Geany v1.33.
8 // .....
9 // Notes: Test GTK Set-up in Geany with C++
10 // .....
11 // .....
12 // .....
13 // .....
14 #include <gtk/gtk.h>
15
16
17
18 void set_DAC01()
19 {
20     printf("Will #include <gtk/gtk.h> actually work in C++ ?");
21 }
22
```

Status: g++ -c "geany\_gtk\_setup.cpp" -pkg... cflags gtk+-3.0' (in directory: /home/pi/Documents/C\_Programs)  
Compilation finished successfully.

## Synopsys:

Adding the entries as shown to both the `COMPILE` and the `BUILD` parameters, for each type of file types resolved the

```
#include <gtk/gtk.h>
```

Issues that I had encountered when trying to compile or build in `C` or `C++`.

Give this a try, and hopefully you'll have the same success I had.

Thanks for Watching:

Please **LIKE** this video and feel free to add your comments / suggestions.

and

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YouTube Video: <https://youtu.be/29OYRhWEFAQ>