

## How to compile SDL\_bgi programs with Dev-C++

These instructions show how to compile an SDL\_bgi program using Dev-C++; we will use `fern.c`, provided in the `test/` directory.

Let's assume that Dev-C++ is installed in `C:\Dev-Cpp`, and that the SDL2 development libraries for MinGW are installed in `C:\SDL2-2.0.14`. If you installed the software in different directories, change the following instructions accordingly.

The procedure was tested with Orwell Dev-Cpp 5.11, TDM64-GCC 9.2.0, and `SDL2-devel-2.0.14-mingw.tar.gz`.

Links:

<https://sourceforge.net/projects/orwelldevcpp/>

<https://libsdl.org/download-2.0.php>

<https://jmeubank.github.io/tdm-gcc/>

### Upgrading Dev-C++'s Compiler

By default, Dev-C++ ships with TDM-GCC 4.9.2; this is a very old version of `gcc` that is not compatible with current SDL2 development libraries. To compile SDL\_bgi programs, you must upgrade TDM-GCC to a newer release.

- remove the directory `C:\Dev-Cpp\MinGW64`
- install TDM64-GCC in `C:\Dev-Cpp\MinGW64`
- start Dev-C++. A window will appear, reporting missing compiler directories. Click on **Yes**
- from menu **Tools/Compiler Options.../Compiler set to configure**, click on the **++** icon (**Find and automatically configure compilers**)
- when asked to **Clear current compiler list?**, click on **Yes**
- **TDM-GCC 9.2.0 64-bit release** will be set as the **Compiler set to configure**. Click on **Ok**
- test Dev-C++ and make sure that you can compile programs.

### Installing SDL\_bgi

- copy `bin/Dev-Cpp/SDL_bgi.dll` to `C:\Dev-Cpp\MinGW64\lib`
- copy `src/SDL_bgi.h` to `C:\SDL2-2.0.14\x86_64-w64-mingw32\include\SDL2`
- copy `src/graphics.h` to `C:\SDL2-2.0.14\x86_64-w64-mingw32\include`

## How to compile

- Run Dev-C++ and start an empty project called `Fern`: menu `File/New/Project...`, tick “C Project”, select “Empty Project”, insert the name “Fern”, click on Ok, then save the project file
- in the left-hand pane, click on tab `Project`, remove `Untitled`, right click on `Fern`, click on `Add to project...`, then pick `fern.c`
- menu `Project/Project options...`, tab `Parameters`, tab `Linker`: add the string `-lmingw32 -lSDL_bgi -lSDL2main -lSDL2 -mwindows`
- menu `Project/Project options...`, tab `Parameters`, tab `Linker`: click on `Add library or object` and select `SDL_bgi` from `C:\Dev-Cpp\MinGW64\lib`
- tab `Directories`, tab `Include Directories`: add `C:\SDL2-2.0.14\x86_64-w64-mingw32\include\SDL2` and `C:\SDL2-2.0.14\x86_64-w64-mingw32\include`
- tab `Library Directories`: add `C:\SDL2-2.0.14\x86_64-w64-mingw32\lib` and `C:\Dev-Cpp\MinGW64\lib` then click on Ok
- compile the program: menu `Execute/Compile`
- copy `C:\SDL2-2.0.14\x86_64-w64-mingw32\bin\SDL2.dll` and `SDL_bgi.dll` to the same directory as `fern.exe`
- run it: menu `Execute/Run`.

**Note 1:** if you release your compiled program, you must also provide `SDL2.dll` and `SDL_bgi.dll` in the same directory.

**Note 2:** if your code uses functions provided by `stdio.h` (e.g. `printf()`, `scanf()`, etc.) you must also run a terminal. Remove the option `-mwindows` from the linker parameters.