

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:\SDL2-2.0.22`. 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 10.3.0, and SDL2-devel-2.0.22-mingw.tar.gz. Newer releases of these packages should work.

Links:

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

<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 10.3.0 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:\SDL2-2.0.22\x86_64-w64-mingw32\include\SDL2`
- copy `src/graphics.h` to `C:\SDL2-2.0.22\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:\SDL2-2.0.22\x86_64-w64-mingw32\include\SDL2** and **C:\SDL2-2.0.22\x86_64-w64-mingw32\include**
- tab **Library Directories**: add **C:\SDL2-2.0.22\x86_64-w64-mingw32\lib** and **C:\Dev-Cpp\MinGW64\lib** then click on **Ok**
- compile the program: menu **Execute/Compile**
- copy ‘**C:\SDL2-2.0.22\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.