

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 `demo/` 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-*`. 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-2.24.2-mingw.tar.gz. Newer releases of these packages should work.

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