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 (MinGW) are installed in `C:\SDL2-2.0.8`. If you installed the software in different directories, change the following instructions accordingly.

The procedure was tested with Orwell Dev-Cpp 5.11, TDM-GCC 5.1.0-3, and SDL2-devel-2.0.8-mingw.

Links:

https://sourceforge.net/projects/orwelldevcpp/   http://tdm-gcc.tdragon.net/download https://libsdl.org/download-2.0.php

Upgrading Dev-C++'s Compiler

By default, Dev-C++ ships with TDM-GCC 4.9.2; this is an old version that is not compatible with current SDL2 development libraries. To compile `SDL_bgi` programs, you must upgrade TDM-GCC to the latest release.

- remove the directory `C:\Dev-Cpp\MinGW64`, or rename it as `C:\Dev-Cpp\MinGW64_old`

- install TDM-GCC (32 bit) in `C:\Dev-Cpp\MinGW64`

- start Dev-C++. A window will appear, informing that a suitable compiler was not found. Click on `No`

- 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`

- select "TDM-GCC 5.1.0 64-bit release" as the "Compiler set to configure"

- restart Dev-C++. A window will appear, informing that `gdb` was not found. From menu `Tools/Compiler Options...` select the tab `Programs` and replace `gdb.exe` with `gdb32.exe`

- test Dev-C++ and make sure that you can compile programs.

Compiling `SDL_bgi` Programs

- copy `SDL_bgi.dll` to `C:\Dev-Cpp\MinGW64\lib`

- copy `SDL_bgi.h` to
  `C:\SDL2-2.0.8\i686-w64-mingw32\include\SDL2`

- copy `graphics.h` to `C:\SDL2-2.0.8\i686-w64-mingw32\include`

- 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, save the project file

- in the left-hand pane, click on tab `Project`, remove `Untitled`, right click
  on `Fern`, click on `Add to project...`, pick `fern.c`

- menu `Project/Project options...`, tab `Parameters`, tab `Linker`: add
  the string `-lmingw32 -lSDL_bgi -lSDL2main -lSDL2 -mwindows`

- tab `Directories`, tab `Include Directories`: add
  `C:\SDL2-2.0.8\i686-w64-mingw32\include\SDL2` and
  `C:\SDL2-2.0.8\i686-w64-mingw32\include`

- tab `Library Directories`: add `C:\SDL2-2.0.8\i686-w64-mingw32\lib`
  then click on Ok

- compile the program: menu `Execute/Compile`

- copy `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.