How to build binary for OpenCV2.2.0 using MinGW

0) Download and install MinGW with GCC4.4.0 and add to the system PATH with c:/mingw/bin.

1) Download cmake from http://www.cmake.org/, e.g., CMake 2.8.4 and install it.

2) Download OpenCV-2.2.0-win, possibly from
http://sourceforge.net/projects/opencvlibrary/files/opencv-win/2.2/.
Note that we will use MinGW and Eclipse, so don't use the OpenCV with (Visual Studio version).
Install/unzip Opencv to c:/OpenCV-2.2.0.

3) Run CMake GUI tool, then
- choose c:/opencv-2.2.0 as your source.
- choose the destination, e.g., d:/OpenCV_MinGW, where to build the binaries.

4) Press Configure button, choose MinGW Makefiles as the generator.
Now possibly there are some red highlights in the window, you could now choose options as needed. I try all "ENABLE" off, and "WITH" Qt, Qt-OpenGL for those of your programs developed with Qt which comes with OpenGL. You could try others as necessary. Then press the Configure button again. Configuring is now done, go ahead and press the Generate button. Exit the program when the generating is done. You can now exit the Cmake program.

5) Run the command line mode (cmd.exe) and go to the destination directory, which is in our example d:/OpenCV_MinGW. Type "mingw32-make". You will now see a progress of building binaries. If the command is not found, you must make sure that the system PATH is added with c:/mingw/bin. The build continues according the chosen options to a completion.

6) In your Windows system PATH do
(My Computer > Right button click > Properties > Advanced > Environment Variables > Path)
add the destination's bin directory, e.g., d:/OpenCV_MinGW/bin, and possibly restart a computer.

7) Go to the Eclipse IDE (E.g., Helios package),
- create a C++ program using the sample OpenCV code
- go to Project > Properties > C/C++ Build > Settings > GCC C++ Compiler > Includes, now add the source OpenCV folder, e.g., C:\OpenCV-2.2.0\modules\highgui\include\; C:\OpenCV-2.2.0\modules\imgproc\include; C:\OpenCV-2.2.0\modules\core\include.
- go to Project > Properties > C/C++ Build > Settings > MinGW C++ Linker > Libraries, now add
    libopencv_highgui220
    libopencv_legacy220
    libopencv_core220
    libopencv_video220
    libopencv_ml220
    libopencv_imgproc220
to the Libraries (-l) and then add the built OpenCV library folder, e.g.,
d:/Opencv_MinGW/lib to Library search path (-L).

8) Now, it's time to try out your first OpenCV program. You should start Eclipse manually from the Eclipse folder.

28 Sep. 2011 pornchai@sit.kmutt.ac.th