Introduction

OpenCV (Open Source Computer Vision)

a library of programming functions for real time computer vision.

Interfaces:

C++ / C / Python / JAVA (not yet)

OS:

Windows / Linux / Mac OS / Android
Introduction

Versions:

Newest – 2.4.2.
Most widely used 2.0 / 2.2.

For more information, visit http://opencv.org/.

For complete documentation, please visit http://docs.opencv.org/.

Installation

OpenCV can be downloaded from:

http://sourceforge.net/projects/opencvlibrary/files/?source=nabar

2 Ways of Installation:
- Installation using the Pre-built Libraries
- Installation by Making Your Own Libraries from the Source Files
Installation

Installation by Using the Pre-built Libraries

1. Choose a version and Download OpenCV from the website.
2. Start the setup and follow the wizard.
3. Add the OpenCV library to the system path.

Installation

Installation by Making Your Own Libraries from the Source Files

1. Make sure you have a working IDE with a valid compiler (in the example, Visual Studio 2008).
2. Install CMake using default install options.
3. Install necessary Prerequisites (or 3rd Party libraries). (Python, MikTex, TBB, Eigen, CUDA, Qt Framework, etc).
Installation

Installation by Making Your Own Libraries from the Source Files

4. Launch CMake. Specify directories:

![Source and destination directories in CMake](image)

Installation

Press the “Configure” button to specify the compiler (and IDE, in our case, Visual Studio 9 2008)

![Selecting compiler and IDE in CMake](image)

Specify 32 bit or 64 bit compiler you have
Installation

CMake will start out and based on your system variables will try to automatically locate as many packages as possible. Choose the packages you want to build.

Press Configure again until all red bars turn gray.

Click “Generate” (or “OK” in previous versions).

Go to the destination directory and find “OpenCV.sln” and open it in the IDE.
Installation

Build both the Release and the Debug binaries.

Observe the built binary files:

Set Environment Variables

NOTE: this example is set in Windows 7.

Go to “Control Panel” -> “System and Security”
-> “System”.

Click “advanced system settings” in the left panel. In the pop-up window click “Enviroment Variables”.
Set Environment Variables