INSTALLATION OF INTEL®DISTRIBUTION OF OPEN VINO tm TOOLKIT FOR WINDOWS 10

SYSTEM REQUIREMENTS

1. Hardware: 6th to 10th gen Intel ®core tm processors and Intel ® Xeon® processor; intel neural compute stick 2; intel® xeon® processor E family; Cooper lake; intel atom® processor with support for intel® streaming SIMD extensions 4.1
2. Processor notes: chipset supporting processor graphics. For further specifications refer, <https://ark.intel.com/content/www/us/en/ark.html#@Chipsets>
3. Operating system: Microsoft windows\*10(64 bit)
4. Software: python 3.5-3.7(64-bit); Cmake 2.8.12 or higher (64-bit);Microsoft visual studio with C++ 2019/2017 with MS built .

Installation would be complete only when, all of them are done:

* Download the intel ®distribution of openVINO tm toolkit. The file would be saved in downloads directory by default as: w\_openvino\_toolkit\_p\_<version>.exe.
* A windows prompts for enabling you to choose the installation directory and components. The default installation directory would include: C:\Program Files (x86)\IntelSWTools\openvino\_<version>.
* But to ease the process, a shortcut is also created : C:\Program Files (x86)\IntelSWTools\openvino. If installing in different directory, new directory would be created.
* After done, click next. Consent box appears,choose the option most suitable , then click next.
* Look for the missing dependencies (if any). The list would prompt in the screen as warning message after installation.
* Click next. The next prompt would include the confirmation of core components being installed.
* If the process is done, then click finish.
* This leads to the next session of setting the environmental variable.
* But if dependencies are missing, you need to download them first.
* When done, move ahead to environmental variables set up.

SETTING THE ENVIRONMENTAL VARIABLES.

* Environmental variables are to be to updated before running Open VINOtm application.
* Command prompt is to be opened and run setupvars.bat for temporary file setup of environmental variables.

CONFIGURATION OF MODEL OPTIMISER

After environmental variable setting the next thing is to configure model optimizer. Interface could not be performed without the model being run on model optimizer. IR of the network is the output having a description of .xml and .bin.

MODEL CONFIGURATION

i. By all supported frameworks at a time.

* Open the command prompt by typing cmd in search windows.
* Follow up to the model optimizer pre requisite directory, by cd C:\Program Files (x86)\IntelSWTools\openvino\deployment\_tools\model\_optimizer\install\_prerequisites
* Run the batch for configuring the model optimizer (for Caffe\*, tenosrflow\*, MXNet\*, Kaldi\* and ONNX\*) using install\_prerequisites.bat

ii. By using model optimizer for each frame work

* Open the model optimizer prerequisite directory , by cd C:\Program Files (x86)\IntelSWTools\openvino\deployment\_tools\model\_optimizer\install\_prerequisites
* Run batch file for the framework chosen, such as for caffe[install\_prerequisite\_caffe.bat]; for tensorflow [install\_prerequisite\_tf.bat]
* After choosing the batch file, configure the model optimizer.

VERIFICATION STEPS

* The command prompt window is to be opened.
* The inference demo directory is to be reached: cd C:\Program Files (x86)\IntelSWTools\openvino\deployment\_tools\demo\
* The verification scripts are ready to run.
* To run the script, use

cd C:\Program Files (x86)\IntelSWTools\openvino\deployment\_tools\demo\

* Run the inference pipeline verification script by ,starting demo\_security\_barrier\_camera.bat. The script would download three pre-trained model IR , the demo application and then would run the models downloaded earlier.
* On demo completion, a console window having information about the demo tasks prompts and image viewer window display resulting frame with bounding box as restriction.
* To end the demo, the window of image viewer is to be closed.