

How to use AI developer kit

Please follow to below steps to setup your system:

Step1: There are two files- AI_kit.wic and AI_kit.wic.bmap, both files need to be downloaded and placed within the same directory.

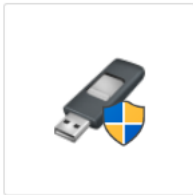


AI_Kit.wic.bmap



AI_Kit.wic

Step2: Download rufus: https://rufus.ie/zh_TW/



rufus-3.17p.exe

Step3: Prepare a 64G SD card & a mini SD reader.



Step4: Use Rufus to write the downloaded image into the SD card.

#The image will take a while to write in, please wait for the process to complete.

Step5: Plug SD card into the TGL AI Kit.

Refer to the model NUC-1115G4E and carry out the following procedure:



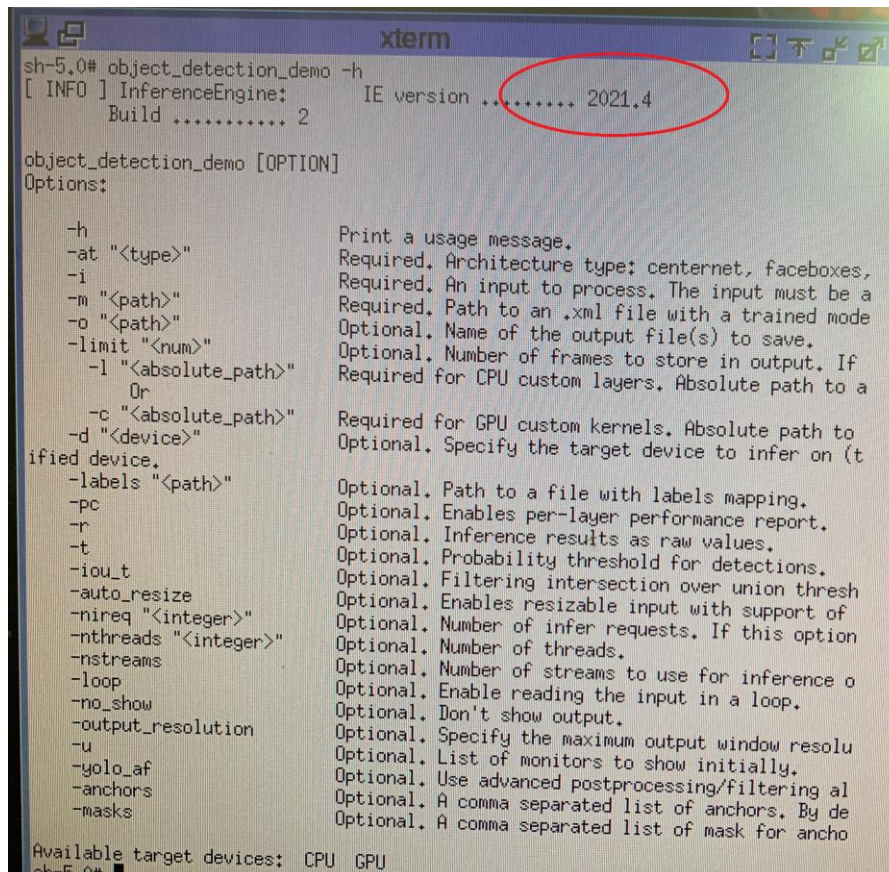
After turning on the machine, you will see the screen as below



Step6: Move the cursor to the bottom left of the screen and click on the empty button left to ICON "1" to execute xterm.



Step 7: While processing xterm, we need to verify if the command “object_detection_demo -h” shows the IE (OpenVINO Inference Engine) version as “2021.4”. After the version is confirmed, we can now use AI accelerated elements with CPU & GPU.



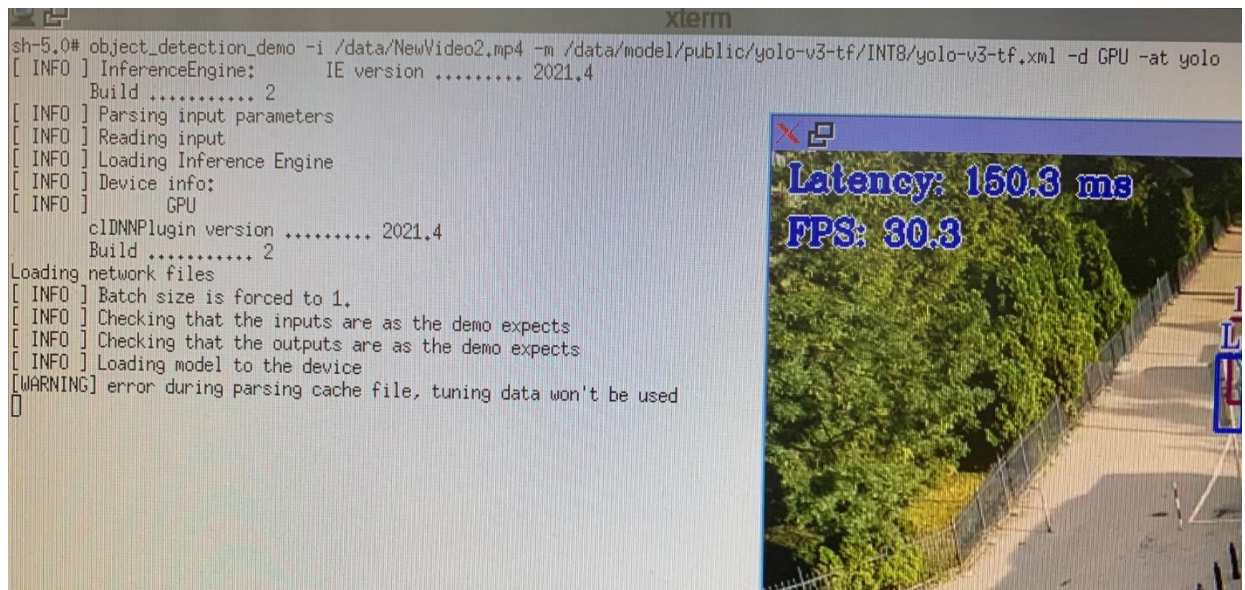
```
sh-5.0# object_detection_demo -h
[ INFO ] InferenceEngine: IE version ..... 2021.4
Build ..... 2

object_detection_demo [OPTION]
Options:

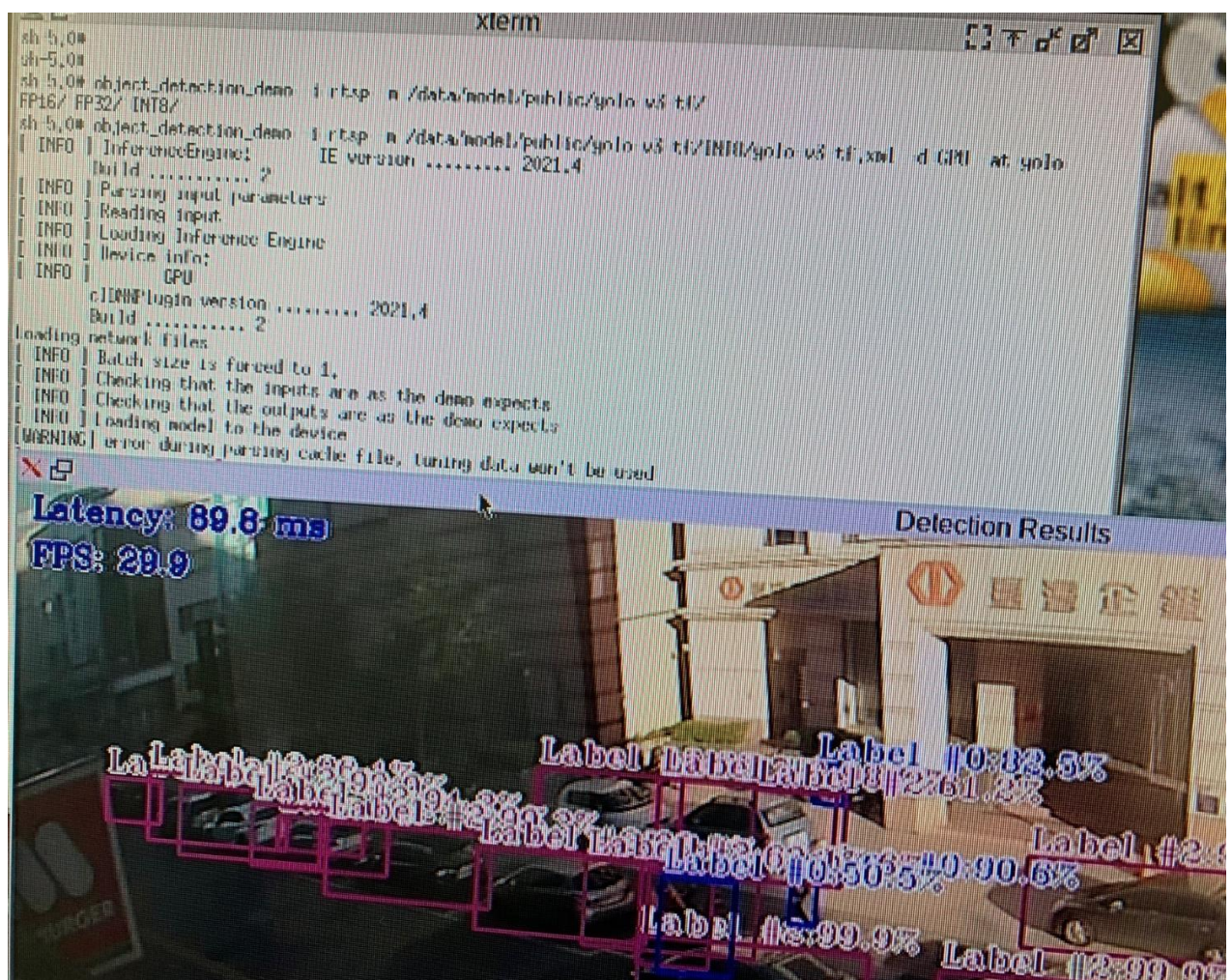
-h          Print a usage message.
-at "<type>" Required. Architecture type; centernet, faceboxes,
-i          Required. An input to process. The input must be a
-m "<path>" Required. Path to an .xml file with a trained model
-o "<path>" Optional. Name of the output file(s) to save.
-limit "<num>" Optional. Number of frames to store in output. If
-l "<absolute_path>" Required for CPU custom layers. Absolute path to a
Or
-c "<absolute_path>" Required for GPU custom kernels. Absolute path to
-d "<device>" Optional. Specify the target device to infer on (t
ified device.
-labels "<path>" Optional. Path to a file with labels mapping.
-pc         Optional. Enables per-layer performance report.
-r          Optional. Inference results as raw values.
-t          Optional. Probability threshold for detections.
-iou_t      Optional. Filtering intersection over union thresh
-auto_resize Optional. Enables resizable input with support of
-nireq "<integer>" Optional. Number of infer requests. If this option
-nthreads "<integer>" Optional. Number of threads.
-nstreams   Optional. Number of streams to use for inference o
-loop       Optional. Enable reading the input in a loop.
-no_show    Optional. Don't show output.
-output_resolution Optional. Specify the maximum output window resolu
-u          Optional. List of monitors to show initially.
-yolo_af    Optional. Use advanced postprocessing/filtering al
-anchors    Optional. A comma separated list of anchors. By de
-masks      Optional. A comma separated list of mask for ancho

Available target devices: CPU GPU
sh-5.0#
```

Step 8: USE GPU to enhance AI capacity:
Use object_detection_demo yoloV3 model to speed up the AI test



Step9: Use an IPCAM with motherboard to perform the AI edge function.





If you have any further questions, please email our SW RD at:

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#Source: <http://wt-intel.com>