

Intel OpenVINO Installation Guide

CONFIDENTIAL AND PROPRIETARY INFORMATION



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Before Installation



Before Installation

Please get this things ready

- 1. Make sure ASUS Mini PC PL63 is well-connected to internet.
- 2. Install one of the below Operating Systems:
- Ubuntu* 18.04 LTS with Kernel 5.4
- Ubuntu 20.04 LTS with Kernel 5.4 or 5.8
- Debian 10







1. Go to Edge Insights for Vision (intel.com).

2. Click "Configure & Download" .

Edge Insights for Vision

Deploy computer vision and deep learning workloads at the edge with prevalidated software components.





3. Choose target system and distribution.

4. Click "Customize Download".

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5. Select the Multi-Camera Detection if need to detect social distancing.

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6. Select "Intel Distribution of OpenVINO toolkit 2021.4.2 in a Container".

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	Intel® Distribution of OpenVINO" toolkit 2021.4.2 Runtime Version 2021.4.2 The Intel® Distribution of OpenVINO" toolkit optimizes inferencing on your edge IoT device by extending workloads across Intel® hardware. This component installs the toolkit runtime packages distributed through the APT repository. It does not run in a container.	•	

7. Select other tools if needed.





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8. Download the package.

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Intel [®] [Distribution of OpenVINO™ toolkit 2021.4.2 Runtime		
Intel [®] [Deep Learning Streamer		
EdgeX	Foundry*		
Docker	r Compose*		
Docker	r Community Edition (CE)*		
K3s* (L	.ightweight Kubernetes*)		
Amazo	n Web Services Greengrass Prerequisites		

9. Copy the .zip file to folder.

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10. Choose "Open in Terminal".

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11. Type the white words and product key.





12. Wait for download. When the installation is complete, you will see the installation status for each module.

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1. To get the demo video, please type words as below.

 $\$ wget -O ~/Downloads/NewVideo2.mp4 \

https://github.com/incluit/OpenVino-For-SmartCity\

/raw/master/data/NewVideo2.mp4

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2. Pull image from Docker Hub. Please type words as below.

\$ docker pull wpig/openvino:2021.3_developer_models

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NOTE "wpig" should be changed to existing resource locations: sertek or synnexgrp or wt1com

3. Run smart city demo. Please type words as below.

\$ docker run -it -v /tmp/.X11-unix:/tmp/.X11-unix \

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--device /dev/dri:/dev/dri \

--group-add=\$(stat -c "%g" /dev/dri/render*) \

--rm wpig/openvino:2021.3_developer_models



4. Please type words as below.

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\$ cd /home/openvino/

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5. Please type words as below.

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\$./smartcity_demo.sh

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6. Run the smart city video.



- 7. Prepare for the benchmark.
- \$ docker run -it -v /tmp/.X11-unix:/tmp/.X11-unix \
- -e DISPLAY=\$DISPLAY -v ~/Downloads:/mnt \
- --device /dev/dri:/dev/dri \
- --group-add=\$(stat -c "%g" /dev/dri/render*) \
- --rm wpig/openvino:2021.3_developer_models
- \$ cd /home/openvino/
- \$ python3 run_command.py

8. Benchmark results.

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clDNNPlugin ver [INFO] Read network took 92.96 ms [INFO] Load network took 50265.99 m [Step 10/11] Measuring performance (S [INFO] First inference took 184.99 Latency: 732.58 ms Throughput: 5.46 FPS cmd:python3 /opt/intel/openvino/deplo -api async -t 60	sion 2.1 ns Start inference asynchronously, 4 inference requests using 2 streams for GPU, limits: 60000 ms durat ms oyment_tools/tools/benchmark_tool/benchmark_app.py -m /opt/intel/openvino_models/public/yolo-v4-tf/F	ion) P16/yo	lo-v4-	tf.xm	l≻-d	GPU
clDNNPlugin ver [INFO] Read network took 49.00 ms [INFO] Load network took 49626.72 m [Step 10/11] Measuring performance (S [INFO] First inference took 92.25 m Latency: 349.24 ms Throughput: 11.43 FPS	rsion 2.1 ms Start inference asynchronously, 4 inference requests using 2 streams for GPU, limits: 60000 ms durat ms	ion)				
cmd:python3 /opt/intel/openvino/deplo d GPU -api async -t 60 clDNNPlugin ver	byment_tools/tools/benchmark_tool/benchmark_app.py -m /opt/intel/openvino_models/public/yolo-v4-tf/F rsion 2.1	P16-IN	T8/yo1	Lo-v4-	tf.x	nl -



Thankyou

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