

# ASUS IoT

AI SVinoTool

AI SVinoPredictTool

User Manual

E21450 | First Edition | January 2023

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# Getting Started

## System Requirements

Before using AISVinoTool or AISVinoPredictTool, check if the system meets the following recommended system requirements:

<b>CPU</b>	Intel™ Core® i7 processor or faster
<b>Memory</b>	16GB or more
<b>Software requirements</b>	Microsoft Visual Studio 2017 Runtime
<b>USB devices</b>	ASUS USB dongle

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**NOTE:**

- The AISVino API only supports CPUs and GPUs
  - For the latest information on CPU and GPU requirements, refer to Intel® OpenVino™ documentation on supported devices.
  - To download and install Microsoft Visual Studio 2017 Runtime, refer to Microsoft documentation on Microsoft Visual C++ Redistributable downloads.
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## Environment Setup

Refer to the AISVision installation guide for more information on downloading and installing the AISVision toolkit and any prerequisites including the Microsoft Visual C++ Redistributable, NVidia drivers, CUDA, and CUDA Deep Neural Network (cuDNN).

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**NOTE:** To download the AISVision toolkit or installation guide, refer to the product support page for AISVision at <https://iot.asus.com/>

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# AISVinoTool

## AISVinoTool Overview

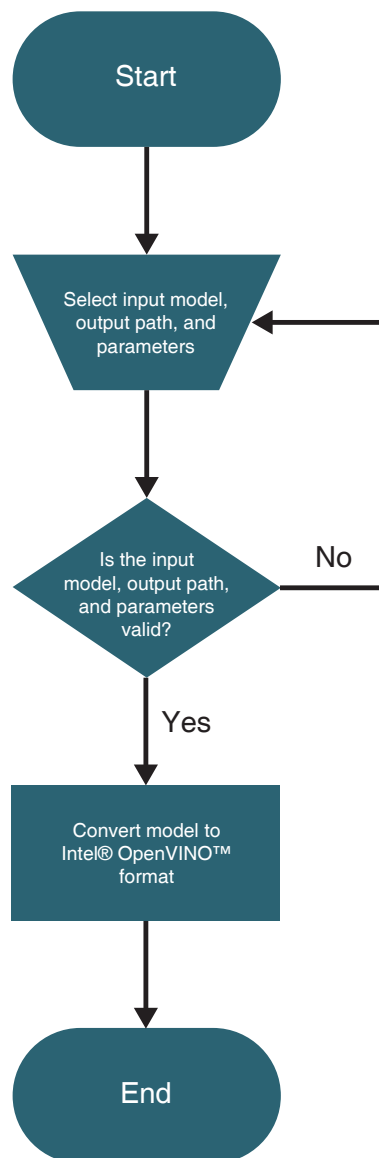
AISVinoTool is a model conversion tool based on the Intel® OpenVINO™ Model Optimizer. It can import and convert AISVision AI models (.ditov) into Intel® OpenVINO™ compatible models (.diti). For C++/C# development, the converted model can be used with an application built using the AISVision Predictor API, such as the AISVinoPredictTool.

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**NOTE:** Ensure that the ASUS USB dongle is plugged in while using AISVinoTool or AISVinoPredictTool.

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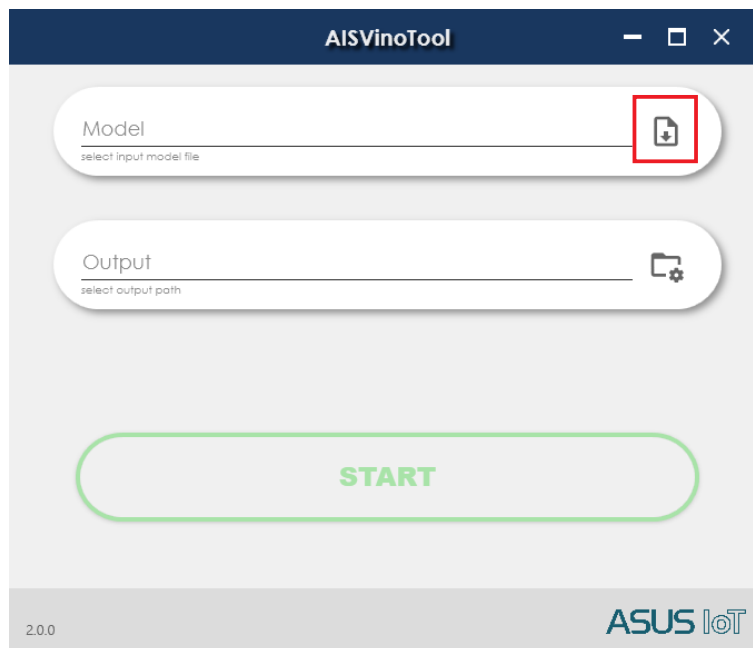
## AISVinoTool Flowchart



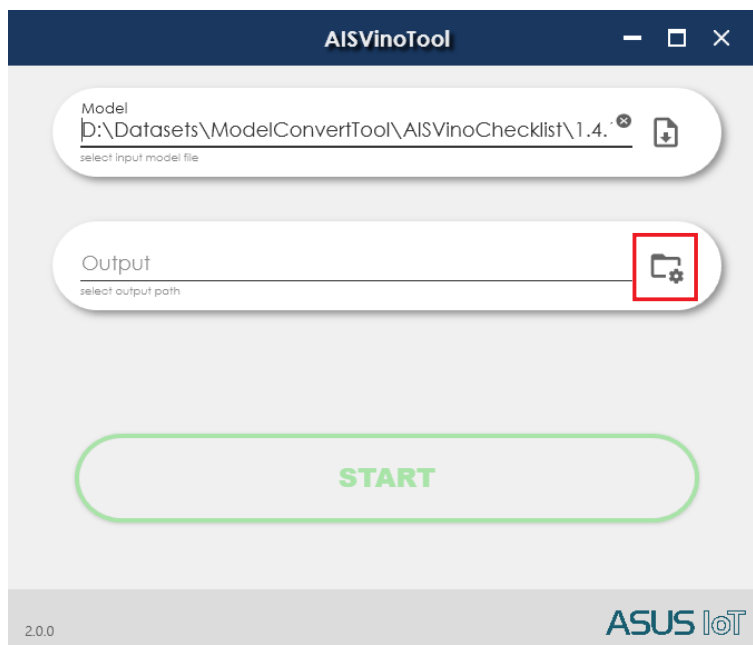
# Using AISVinoTool

**NOTE:** Before using AISVinoTool, ensure that the system environment setup has been completed and that the ASUS USB dongle is plugged in. Refer to the **System Requirements** and **Environment Setup** sections for more information.

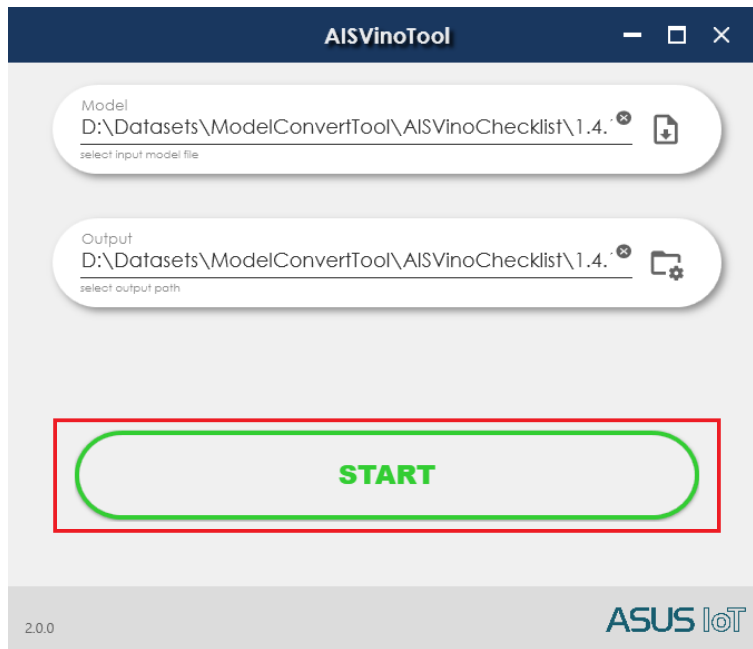
1. Double click the AISVinoTool icon to start AISVinoTool.
2. Choose the AISVision AI model (.ditov) for conversion.



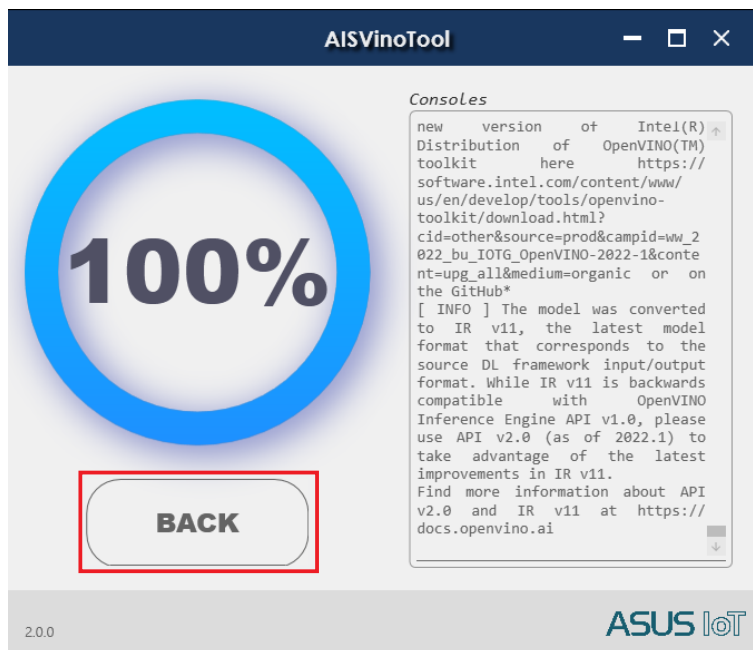
3. Select the output folder for the converted Intel® OpenVINO™ compatible model (.ditir).



4. Click **Start** to begin converting the model.



5. (Optional) To convert additional models, click **Back** after the conversion is completed.



# AISVinoPredictTool

## AISVinoPredictTool Overview

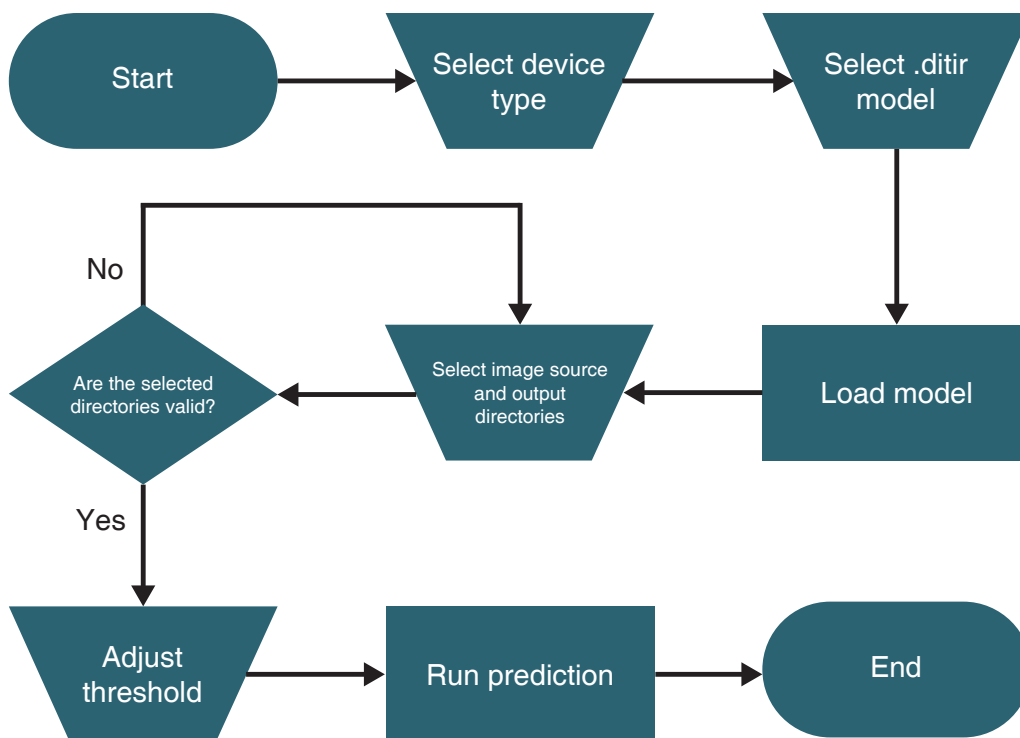
AISVinoPredictTool is a model performance verification tool based on Intel® OpenVINO™ Model Optimizer technology. It can read Intel® OpenVINO™ compatible models (.dltir), load pictures for prediction, and output the model prediction results, prediction time per picture, and the average time spent on prediction.

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**NOTE:** For more information on multi-device operation, refer to Intel® OpenVINO™ documentation on Multi-Device Plugins.

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## AISVinoPredictTool Flowchart

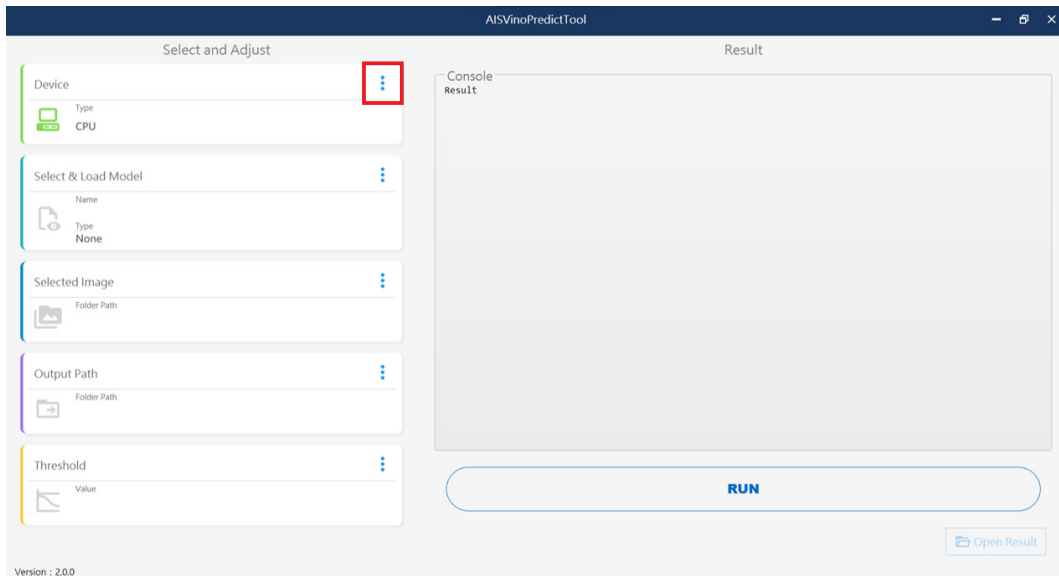




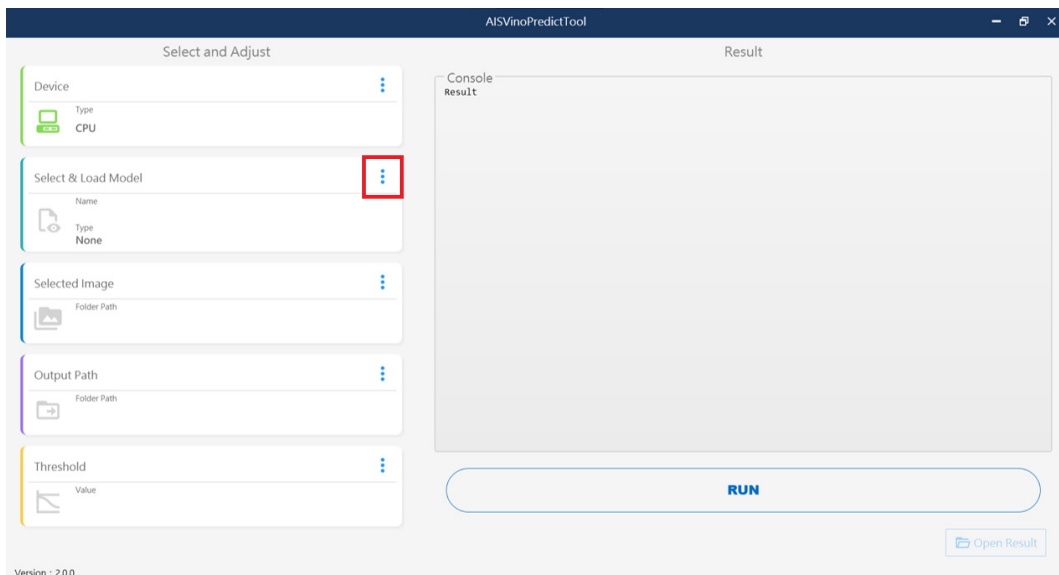
# Using AISVinoPredictTool

**NOTE:** Before using AISVinoPredictTool, ensure that the system environment setup has been completed and that the ASUS USB dongle is plugged in. Refer to the **System Requirements** and **Environment Setup** sections for more information.

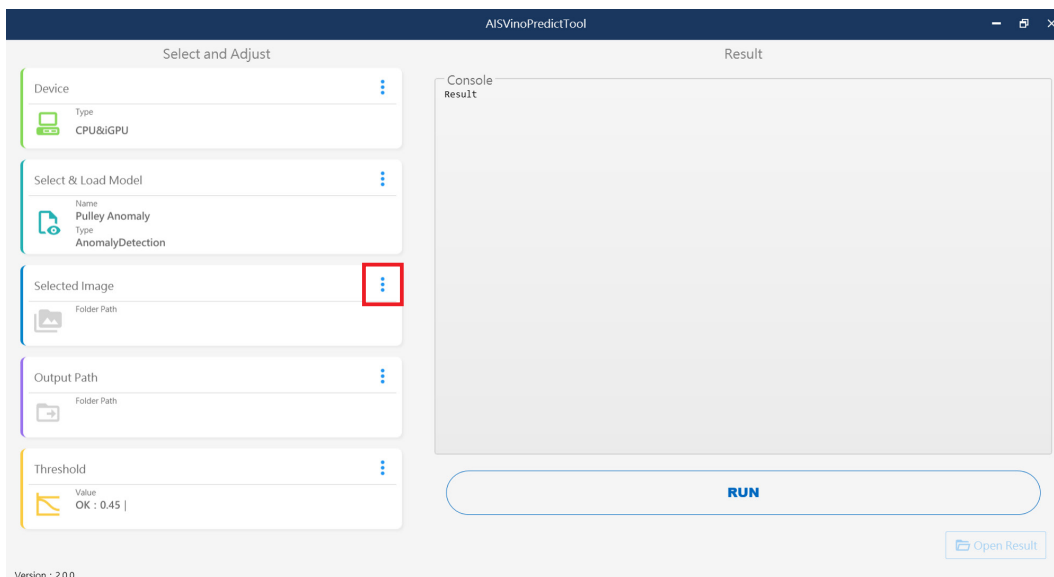
1. Double click the AISVinoPredictTool icon to start AISVinoPredictTool.
2. Select CPU, iGPU, or CPU&iGPU as the device type depending on your system configuration.



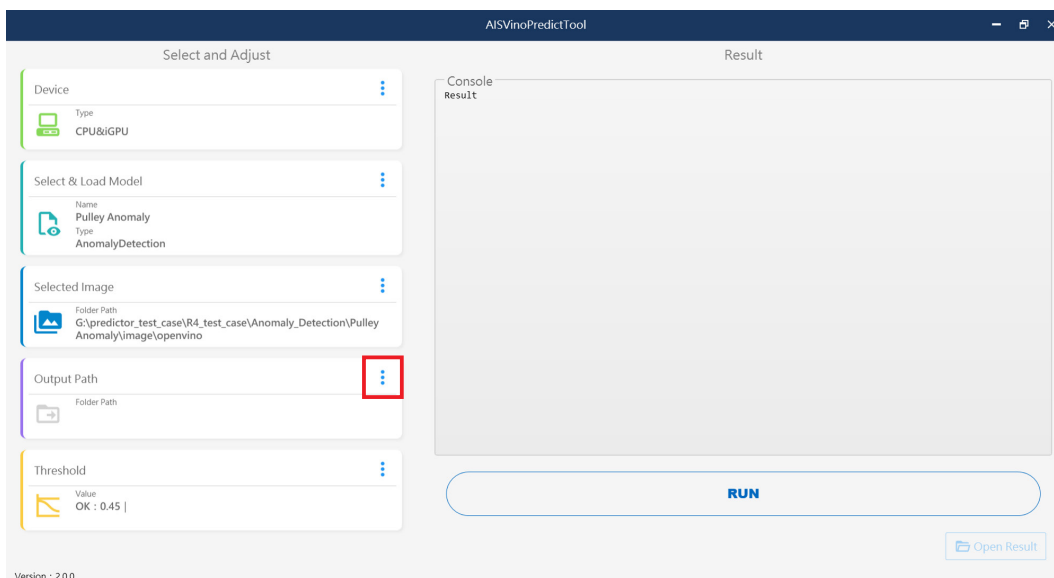
3. Select an Intel® OpenVINO™ compatible model (.ditiir).



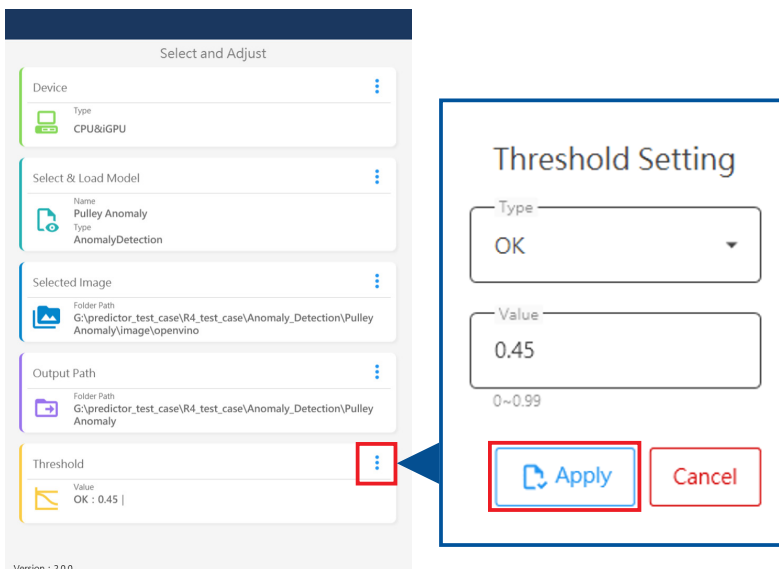
4. Select the folder containing the images for prediction.



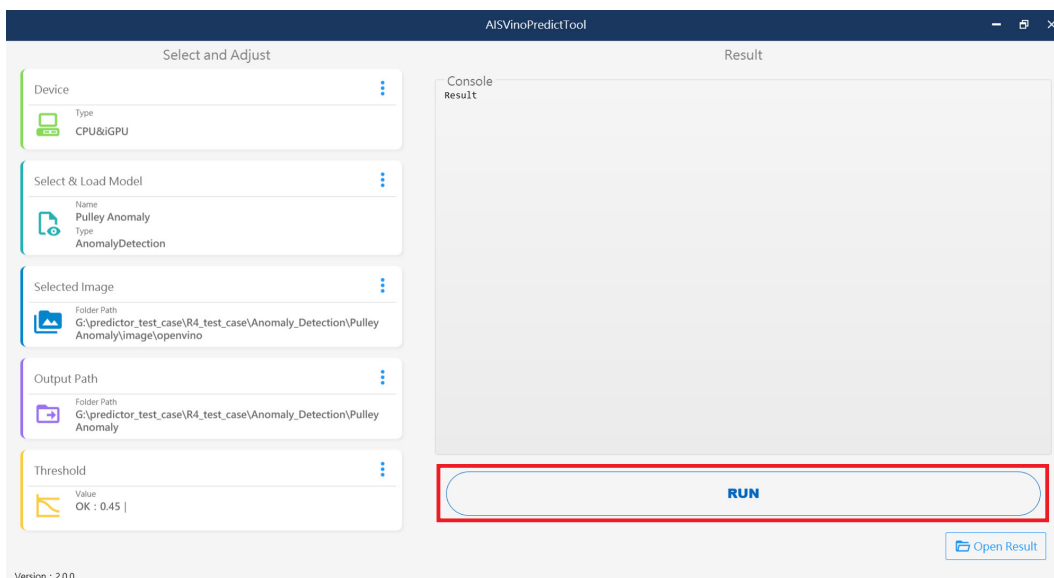
5. Select the output folder.



6. Adjust the threshold setting, then click **Apply** to save your changes.



7. Click **Run** to begin prediction.



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**NOTE:** To cancel an ongoing prediction after it has started, click **Stop**.

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8. Once the prediction is completed, click **Open Result** to view the prediction results.

