



TENSORRT

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API



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Chapter 1.

C++ API

The C++ API allows developers to import, calibrate, generate and deploy networks using C++. Networks can be imported directly from NVcaffe™, or from other frameworks via the UFF format. They may also be created programmatically by instantiating individual layers and setting parameters and weights directly.

Within the core C++ API in `NvInfer.h`, the following APIs are included:

- ▶ [Builder API](#)
- ▶ [Execution API](#)
- ▶ [Network Definition API](#)
- ▶ [Plugin API](#)

To view the C++ API, see [TensorRT C++ API](#).

For more information about the C++ API, including sample code, see [TensorRT Developer Guide](#).

Chapter 2.

PYTHON API

The TensorRT Python API enables developers, (in Python based development environments and those looking to experiment with TensorRT) to easily parse models (for example, from NVcaffe, TensorFlow™, Open Neural Network Exchange™ (ONNX), and NumPy compatible frameworks) and generate and run PLAN files. Currently, all functionality except for Int8Calibrators and RNNs are available to use in Python.

To view the TensorRT Python API, see [TensorRT Python API](#).

For more information about the Python API, including sample code, see [TensorRT Developer Guide](#).

2.1. TensorRT Lite API

Included within the Python API is a highly abstracted interface called TensorRT™ Lite. TensorRT Lite API handles almost everything when it comes to building an engine and executing inference, therefore, users are able to just create an engine and start processing data.

The Lite API is located in `tensorrt_lite` and contains a single class called **Engine**. The engine constructor takes the model definition and the input and output layers and constructs a full engine around it that is ready for inference.

To view the TensorRT Lite API, see [TensorRT Lite API](#).

For more information about the TensorRT Lite API, including sample code, see [TensorRT Developer Guide](#).

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