Get Started with the Intel® AI Analytics Toolkit for Windows*

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The following instructions assume you have installed the Intel® oneAPI software. Please see the Intel AI Analytics Toolkit page for installation options.

Follow these steps to build and run a sample with the Intel® AI Analytics Toolkit (AI Kit):

1. Configure your system.
2. Build and Run a Sample.

> **NOTE** Standard Python installations are fully compatible with the AI Kit, but the Intel® Distribution for Python* is preferred.

No special modifications to your existing projects are required to start using them with this toolkit.

Components of This Toolkit

The AI Kit includes:

Component Name	Package Name	Platform	Channel
Intel® Distribution for Python*: Get faster Python application performance right out of the box, with minimal or no changes to your code. This distribution is integrated with Intel® Performance Libraries such as the Intel® oneAPI Math Kernel Library and the Intel®oneAPI Data Analytics Library	intelpython3_full	win	intel
Intel® Distribution of Modin*	modin-ray	win	anaconda
Intel® Neural Compressor*: Quickly deploy low-precision inference solutions on popular deep-learning frameworks such as TensorFlow*, PyTorch*, MXNet*, and ONNX* (Open Neural Network Exchange) runtime.	neural-compressor	win	intel
Intel® Optimization for PyTorch*:	pytorch (include -c pytorch on your command line)	win	pytorch

Intel® Optimization for TensorFlow*:	tensorflow	win	anaconda

Configure Your System

Intel® AI Analytics Toolkit

Install the Intel® AI Analytics Toolkit

If you have not already downloaded the AI Analytics Toolkit, visit Installing the Intel® AI Analytics Toolkit to download it. Then, refer to Install Intel® AI Analytics Toolkit via Conda* for instructions on setup and installation.

Next Step

Now that you have configured your system, proceed to Build a Project Using the Command Line.

Build and Run a Sample Using the Command Line

Intel® AI Analytics Toolkit

In this section, you will run a simple "Hello World" project to familiarize yourself with the process of building projects, and then build your own project.

> **NOTE** If you have not already configured your development environment, go to Configure your system then return to this page. If you have already completed the steps to configure your system, continue with the steps below.

Build and Run a Sample Project

The samples below must be cloned to your system before you can build the sample project:

Name of Sample	Description	How to Clone and Build
TensorFlow HelloWorld	TensorFlow optimized on Intel hardware enables Intel® DNNL calls by default. It implements an example neural network with one convolution layer and one ReLU layer.	Clone TensorFlow_HelloWorld sample, then follow the directions in README.md to build and run the sample.
For more samples, browse the full GitHub repository: Intel® oneAPI AI Analytics Toolkit Code Samples.		

To see a list of components that support CMake, see Use CMake to with oneAPI Applications.

Build Your Own Project

No special modifications to your existing Python projects are required to start using them with this toolkit. For new projects, the process closely follows the process used for creating sample Hello World projects. Refer to the Hello World README files for instructions.

Maximizing Performance

You can get documentation to help you maximize performance for either TensorFlow or PyTorch.

Using Cloud CI Systems

Cloud CI systems allow you to build and test your software automatically. See the repo in github for examples of configuration files that use oneAPI for the popular cloud CI systems.

Troubleshooting for the Intel® AI Analytics Toolkit

Issue	How to fix
Errors due to missing dependencies, missing environment variables or missing machine capabilities.	The Diagnostics Utility for Intel oneAPI Toolkits provides the ability to find missing dependencies and permissions errors and is already installed with this tooklit. Learn more.
Errors that occur during installation or directly after installation.	See the Troubleshooting page of the Intel© oneAPI Toolkits Installation Guide for Windows* OS.

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