

# DAQPilot

*A Software Package for ADLINK DAQ products to manage devices, create and deploy iApp to device for edge data analytics and decimation*



## Introduction

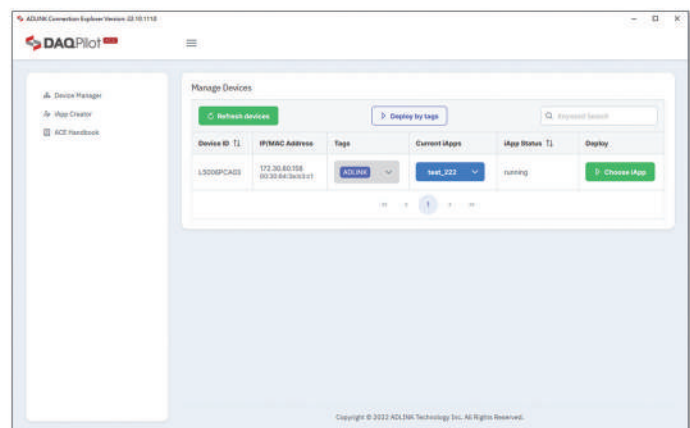
DAQPilot is a software package for ADLINK DAQ products that serves as an integrated management utility. It includes device management and an iApp creator, enabling the deployment of user-defined data analytics to DAQ devices for enhanced smart capabilities. Additionally, it provides a unified SDK that is task-oriented and optimized for typical DAQ applications, specifically designed to stream continuous time-series data.

## Key Features

- Integrated management utility for device/iApp management
- Includes IDE to remotely develop iApps for edge data analytics
- Easy iApp mass deployment to remote devices with just one click
- Task-oriented and optimized SDK for typical DAQ applications with C/C#/C++/Python/LabView
- Enables streaming of continuous time-series data via SDK

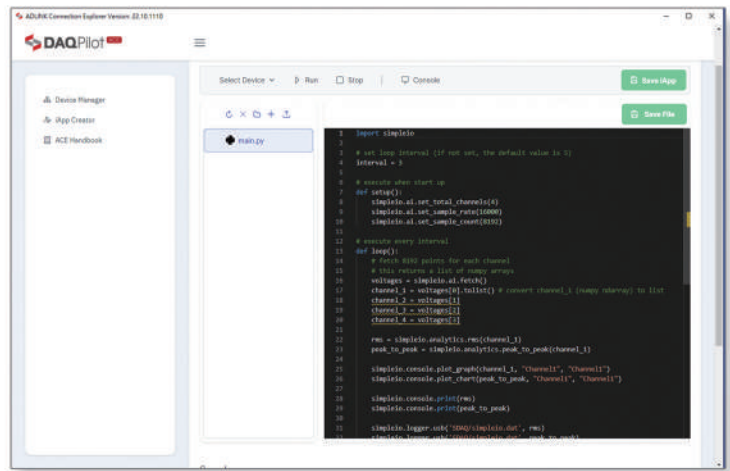
## Remotely Manage Multiple Devices/iApp

The DAQPilot device manager is able to auto-discover all supported devices on the local network and features an intuitive user interface for providing device management functionalities including displaying device information, iApp deployment to devices, and setting Tags to identify or group multiple devices. Tags are a convenient way for mass iApp deployment to grouped devices.



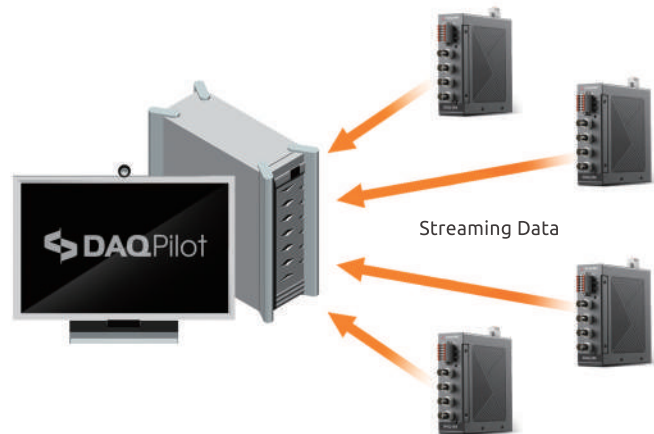
## iApp for Edge Data Analytics and Decimation

The iApp Creator provides an IDE for python programming, allowing remote development and debugging iApps that can be temporarily deployed to simplify trials. It also provides a dashboard widget showing device data that can reduce development time and debugging effort.



## Stream Continuous Time-Series Data

Traditionally, centralized DAQ systems were used to send buffered or streaming data to a host for further analysis. This configuration is easily achieved over a PCI/PCIe bus in a local DAQ system. However, this configuration is not possible using a distributed Edge DAQ system. Optimization of the system and software architecture is essential to guarantee data delivery for streaming continuous time-series data. DAQPilot has a unified SDK with a task-oriented design that has been optimized for streaming typical DAQ applications.



## Supported Hardware

- SDAQ-204, Programmable Smart DAQ with 4-ch Sound and Vibration Input
- SDAQ-216, Programmable Smart DAQ with 16-ch Voltage Input
- SDAQ-218, Programmable Smart DAQ with 8-ch Current Input

Note: The supported hardware are continuing to increase

## Supported Programming Language

- SDK: C, C#, C++, Python, LabView
- iApp Creator: Python

## Supported Operating System

- Windows 10 64-bit

Note: Linux, MacOS support is coming soon

## Usage Restriction

- Local network IPv4 multicast must be enabled to allow DAQPilot to auto-discover devices on the network.