



# **Application Programming Interface (API)**

## **Manual**

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**Ver. A1**

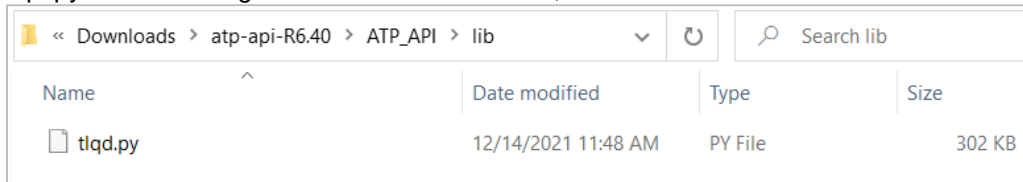
# Application Programming Interface (API)

## 1.1 Accessing the API Package

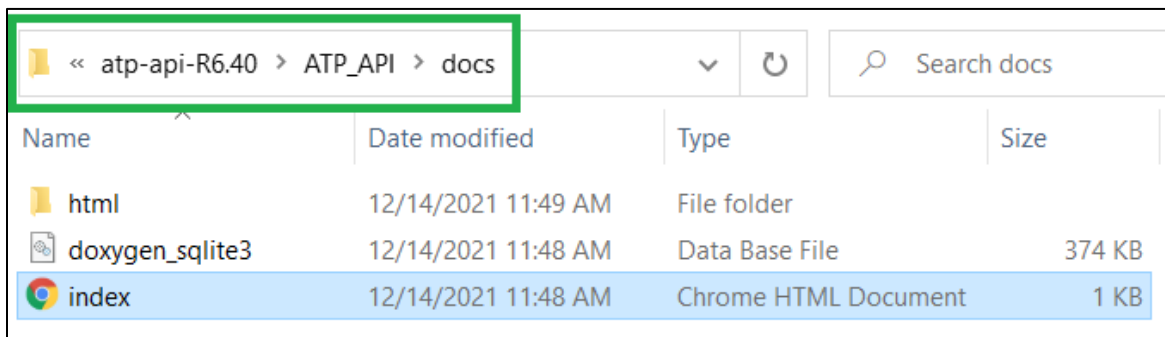
The API now supports the full suite of DSC 1.4 Source Compliance Testing. Detailed information about the API can be found by downloading the **Application Programming Interface (API)** package listed under **Optional Packages** at <https://quantumdata.com/downloads.html>.



Upon download and extracting the zipped files, ensure that you replace your current instance of the `tlqd.py` file containing the API classes/methods, found in the folder indicated below.



Upon download and extracting the zipped files, navigate to `Index.html` for a full reference and procedures for Installation and Programming using the Python API.



## 1.2 Available API Programming

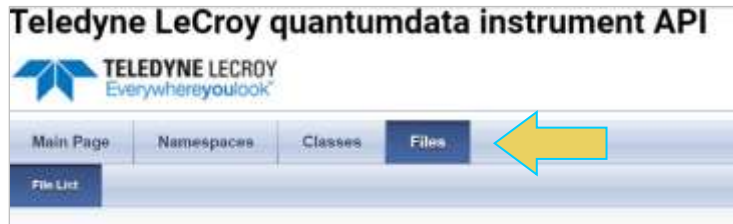
There are a number of APIs available to control testing without using the GUI. Refer to the table below for a listing and brief description of each API.

Navigator Sidebar	
API	Description
<i>Instrument Control</i>	
HDMI Source Control	The API allows a quantumdata instrument user to control the HDMI Source without the GUI
HDMI Sink Control	The API allows a quantumdata instrument user to control the HDMI Sink without the GUI
DisplayPort Source Control	The API allows a quantumdata instrument user to control the DisplayPort Source without the GUI.
DisplayPort Sink Control	The API allows a quantumdata instrument user to control the DisplayPort Sink without the GUI.
<i>Device Testing</i>	<ul style="list-style-type: none"> <li>- The GUI was designed to step a user through each test. The API was designed to control every test and iteration so that the programmer decides which tests and iterations to run, in the order of their choosing.</li> <li>- There is no need to provide a CDF file when using the API with FRL source tests.</li> </ul>
HDMI Source Tests	The API allows a quantumdata instrument user to run HDMI Source tests without the GUI.
FRL Source Tests	The API allows a quantumdata instrument user to run FRL Source Tests without the GUI.
DSC Source Tests	The API allows a quantumdata instrument user to run DSC Source Tests without the GUI.
eARC Source Tests	The API allows a quantumdata instrument user to run eARC Source tests without the GUI.
eARC Sink Tests	The API allows a quantumdata instrument user to run eARC Sink tests without the GUI.
HDMI Sink Tests	The API allows a quantumdata instrument user to run HDMI Sink tests without the GUI. There is not a requirement to provide a CDF file when using the API with HDMI sink tests, but it may be provided for convenience. Many test iterations allow the programmer to specify attributes, such as a VIC or bit-depth.
FRL Sink Tests	The API allows a quantumdata instrument user to run FRL Sink tests without the GUI. There is not a requirement to provide a CDF file when using the API with FRL sink tests, but it may be provided for convenience. Many test iterations allow the programmer to specify attributes, such as a VIC or bit-depth.
DSC Sink Tests	The API allows a quantumdata instrument user to run DSC Sink tests without the GUI. There is not a requirement to provide a CDF file when using the API with DSC sink tests, but it may be provided for convenience. Many test iterations allow the programmer to specify attributes, such as a VIC or bit-depth.

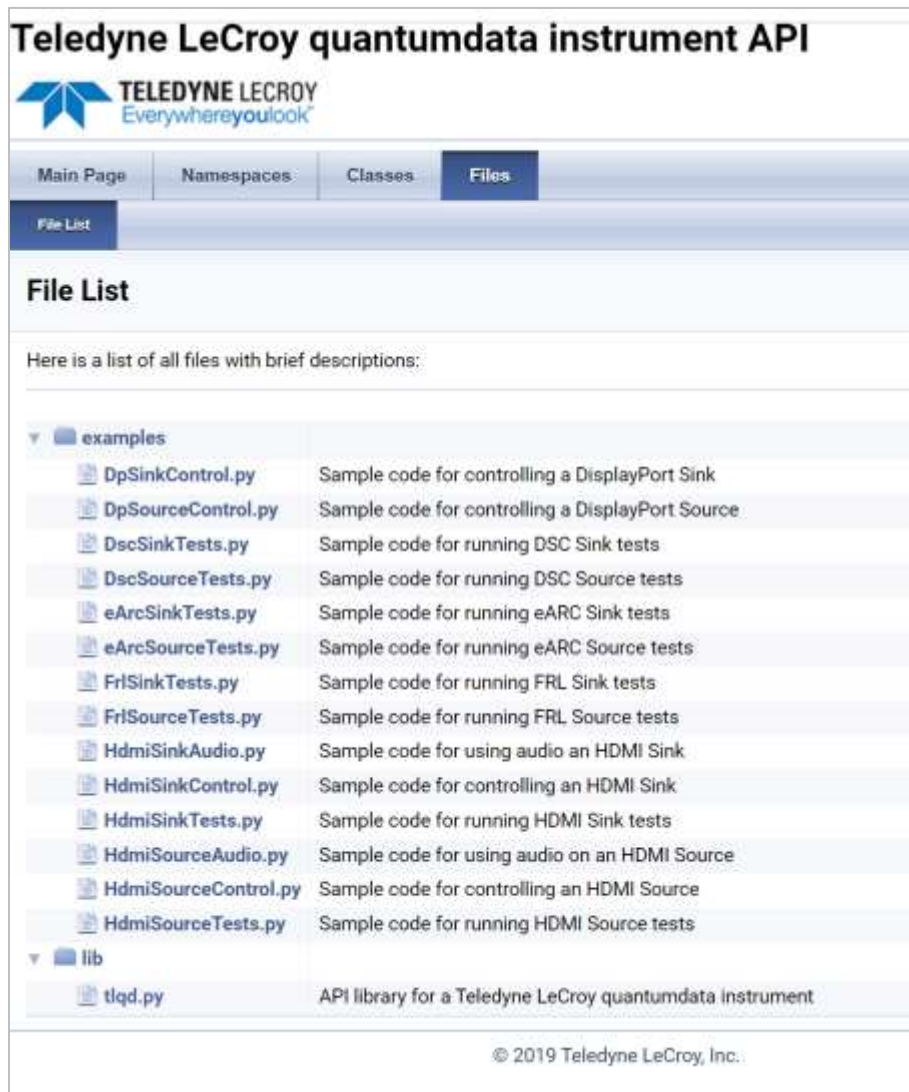
### 1.3 Sample API Code

The API zip file that is downloadable from the Teledyne Lecroy website offers a number of python files with sample API code. Sample code is available for nearly every Control/Testing API supported.

Access the Sample API code by clicking the **Files** tab within the API index file accessed in Section 1.1.



A list of download links containing the available sample python code files will be displayed under the File List tab, as shown below.



Refer to the following table for a description of the downloadable sample python code files.

Sample API Code Files	
Sample Code File	Description
DpSinkControl.py	Sample code for controlling a DisplayPort Sink
DpSourceControl.py	Sample code for controlling a DisplayPort Source
DscSinkTests.py	Sample code for running DSC Sink tests
DscSourceTests.py	Sample code for running DSC Source tests
eArcSinkTests.py	Sample code for running eARC Sink tests
eArcSourceTests.py	Sample code for running eArc Source tests
FrlSinkTests.py	Sample code for running FRL Sink tests
FrlSourceTests.py	Sample code for running FRL Source tests
HdmiSinkAudio.py	Sample code for using audio on an HDMI Sink
HdmiSinkControl.py	Sample code for controlling an HDMI Sink
HdmiSinkTests.py	Sample code for running HDMI Sink tests
HdmiSourceAudio.py	Sample code for using audio on an HDMI Source
HdmiSourceControl.py	Sample code for controlling an HDMI Source
HdmiSourceTests.py	Sample code for running HDMI Source tests
tlqd.py	API Library for Teledyne Lecroy quantumdata instruments