

SONY



Vision and Sensing Application SDK Console API Initialize Functional Specifications

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TOC

1. Change history	1
2. Terms/Abbreviations	2
3. Reference materials	3
4. Expected use case	4
5. Functional overview/Algorithm	5
6. User interface specifications	7
7. Target performances/Impact on performances	11
8. Assumption/Restriction	12
9. Remarks	13
10. Unconfirmed items	14

1. Change history

Date	What/Why
2023/01/30	Initial draft

2. Terms/Abbreviations

Terms/Abbreviations	Meaning
Console REST API	REST API provided by Console for AITRIOS
Console Access Library	Libraries for using the features of the Console REST API. There is one for Python and another for TypeScript, but for the purposes of this document, it is meant for Python.

3. Reference materials

- Portal User Manual
 - <https://developer.aitrios.sony-semicon.com/development-guides/documents/manuals/>
- API Reference
 - <https://developer.aitrios.sony-semicon.com/development-guides/reference/api-references/>
- Console Access Library Functional Specifications
 - <https://developer.aitrios.sony-semicon.com/development-guides/documents/specifications/>

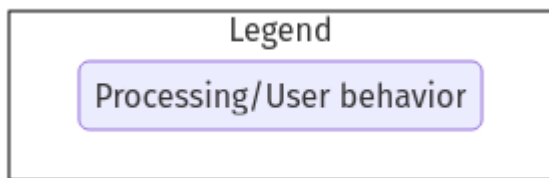
4. Expected use case

- You want to use Console for AITRIOS through API
 - Example: Import AI models and post-process applications into Console for AITRIOS and deploy them to edge AI devices through API
- You want to authenticate to use the API

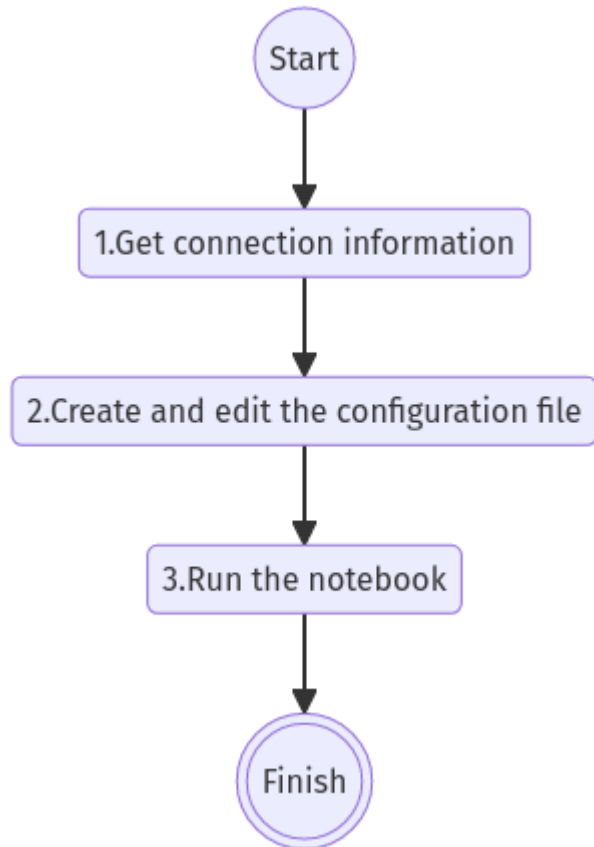
5. Functional overview/Algorithm

Functional overview

- SDK provides notebook for system client authentication to Console for AITRIOS



- Flow overview



1. Get connection information

- Get credentials needed to connect to AITRIOS

2. Create and edit the configuration file

- Create the configuration file and set the information gotten in 1

3. Run the notebook

- Run the notebook to authenticate to AITRIOS

- See next chapter for details on each flow

6. User interface specifications

Prerequisite

- You have registered as a user through Portal for AITRIOS and participated in the AITRIOS project

How to start each function

1. Jump to the **README.md** in the **set_up_console_client** directory from the hyperlink in the **README.md** in the directory for each feature that uses the Console Access Library

Get connection information

Get the following information to connect to Console for AITRIOS using the API:

This information is used in [Create and edit the configuration file](#) of the next section.

- Server URL

Check the following from the documentation of this function (**README.md**) :

- API server base URL
- Authentication server URL

- Client app details

Get from the list of client apps in Portal for AITRIOS:

See [Portal User Manual](#) for details.

- Client ID
- Secret

Create and edit the configuration file

Create the [configuration file](#) in the **set_up_console_client** directory, and set the preceding connection information.



All parameters are required.



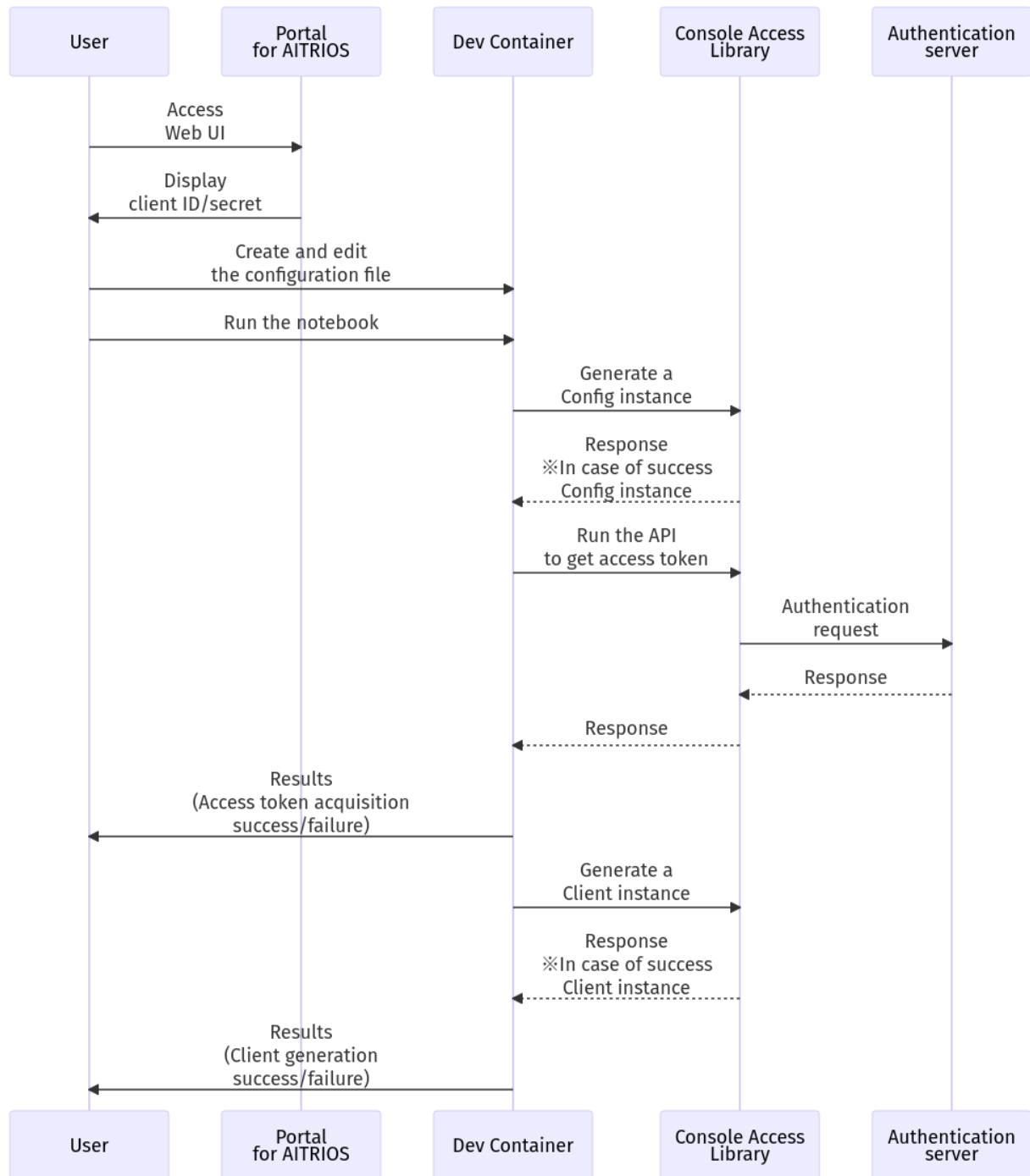
The parameters passed to the Console Access Library API are as specified in the [Console Access Library API](#).

Configuration	Meaning	Range	Remarks
console_endpoint	API server base URL	String Details follow the Console Access Library API specification.	Don't abbreviate Used for the following Console Access Library API · common.config.Config
portal_authentication_endpoint	Authentication server URL	String Details follow the Console Access Library API specification.	Don't abbreviate Used for the following Console Access Library API · common.config.Config
client_id	Client ID required for authentication	String Details follow the Console Access Library API specification.	Don't abbreviate Used for the following Console Access Library API · common.config.Config
client_secret	Secret required for authentication	String Details follow the Console Access Library API specification.	Don't abbreviate Used for the following Console Access Library API · common.config.Config

Run the notebook

1. Open the notebook, **.ipynb*, in the directory for client authentication under the **common** directory, and run the python scripts in it
 - The script does the following:
 - Checks that *configuration file* exists in the execution directory
 - If an error occurs, the error description is displayed and running is interrupted.
 - Checks that *configuration file* includes each parameter
 - If an error occurs, the error description is displayed and running is interrupted.
 - Reads the value of each parameter from *configuration file* to call API for system client authentication
 - If an error occurs, the error description is displayed and running is interrupted.
 - If authentication succeeds and the client instance is created successfully, displays a successful message
 - Saves the client instance for use by other notebooks in the SDK
 - See [Cloud SDK Console Access Library\(Python\) Functional Specifications](#) for details on errors and response times

Sequence



7. Target performances/Impact on performances

- Users can take advantage of each feature of the Console for AITRIOS API without being aware of its internal operation
- UI response time of 1.2 seconds or less
- If processing takes more than 5 seconds, then the display during processing can be updated sequentially
- Provides users with documentation of usage tools and version information

8. Assumption/Restriction

- None

9. Remarks

- None

10. Unconfirmed items

- None