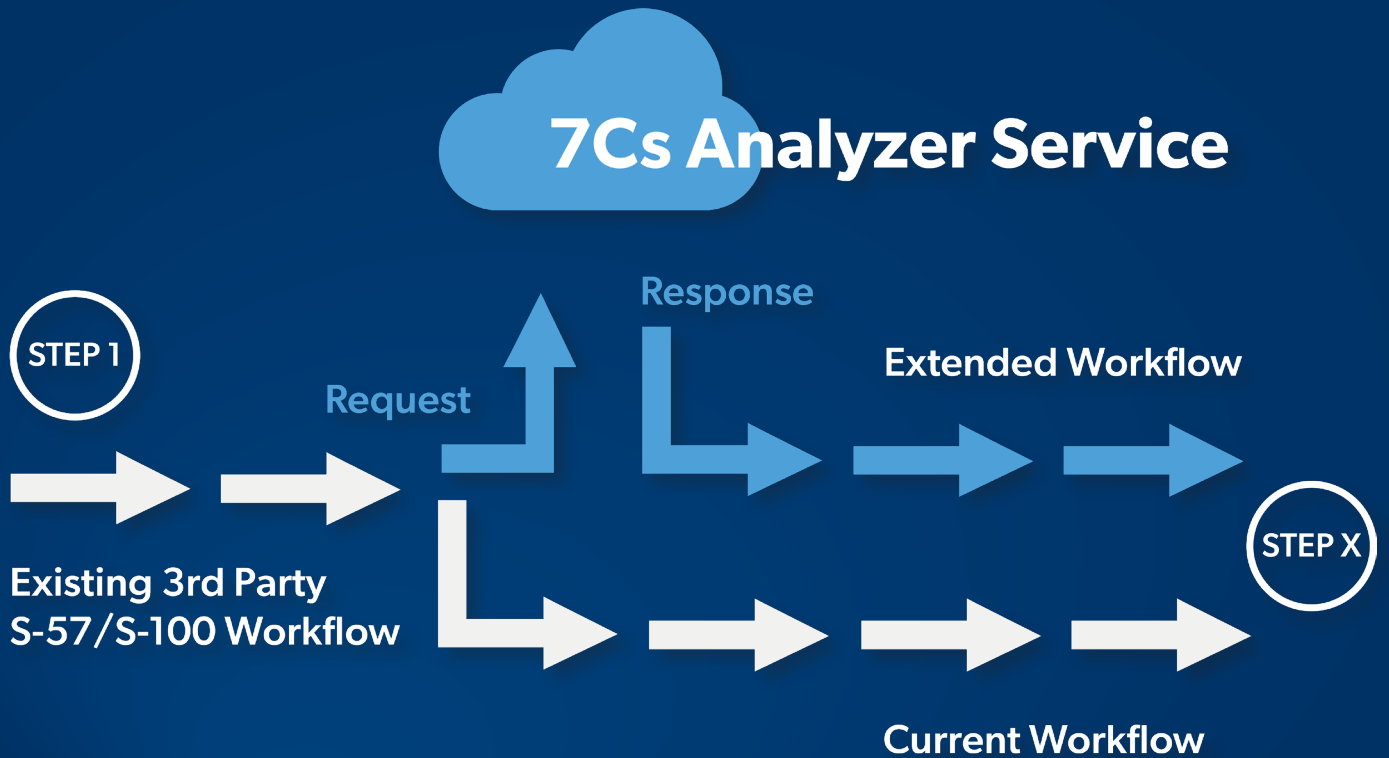


7Cs Analyzer Service API

REST API interface for communication and data exchange.



PRODUCT DESCRIPTION:

The 7Cs Analyzer Service API can be used to include and implement the S-57/S-100 validation engine of 7Cs Analyzer into third-party workflows (e.g. chart production, quality assurance procedures). 7Cs Analyzer Service provides a REST API interface for communication and data exchange. The software is installed on a dedicated server the third-party systems have to connect to.

7Cs Analyzer Service API can be installed on a physical or a virtual server (e.g. cloud environment) that is managed and administered by the customer. Alternatively, the 7Cs Analyzer Service can be hosted by SevenCs.

For end users to use the validation service, the third-party system (client application) must provide two things: functions to send meaningful requests to the 7Cs Analyzer Service (e.g. datasets that need validation), and functions to retrieve the requested information (e.g. report with validation results).

The amount of human interaction depends on the implementation of the 7Cs Analyzer Service into the third-party system. This can vary from high automation (with almost no human interaction) to a solution that involves the human operator to a greater degree. From SDMS (the newly developed S-100 Data Management System) Version 1.1 on, it will be possible to interact with the 7Cs Analyzer Service API.

FUNCTIONAL OVERVIEW

- Provides a method for operating 7Cs Analyzer without human interaction
- For integration into new or existing workflows that require S-57 and/or S-10x validation
- The validation service can be accessed by other applications, via a REST API
- Includes User Authentication and Authorization (JWT)
- Can be operated by organizations in a local network or in the cloud
- On customer request SevenCs can also provide service hosting
- Supports organizations in automation of workflows

SUPPORTED FEATURES:

- User Authentication and Authorization
 - JSON Web Token Authorization
- Organization API
 - add organization
 - specify organization id
- UserManagement API
 - register a new user
 - update user roles
 - user sign-in and change of password
 - retrieve user information
 - delete users

- Main API
 - specify dataset directory
 - retrieve dataset directory information
 - upload dataset
 - create tasks to validate datasets
 - determine whether a dataset is awaiting analysis
 - retrieve the summary analysis results
 - download the Analyzer validation results
 - remove dataset directories that are no longer needed

SUPPORTED PRODUCTS:

- S-57 ENC, IENC, AML
- S-101 ENC

SYSTEM REQUIREMENTS:

- **Hardware:** PC Intel X86 or compatible (8 or more CPU cores recommended)
- **Operating System:** Windows 10, Windows 11, Server 2016, 2018 and 2022 (64 bit);
- **Minimum Memory Requirements:** RAM: 8 GB

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