



Unified Assurance and Analytics **SNMP SDK KIT User Guide**

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Publication History

The following table lists the 23.08 UAA SNMP SDK KIT user guide publication history.

Table 1: Publication History

DATE	VERSION	NOTES
21-Nov-2023	1.0	Maintenance Patch Release for 23.08.64 (MR2)
25-Oct-2023	1.0	Maintenance Patch Release for 23.08.61 (MR1)
14-Aug-2023	1.0	Initial 23.08 Release

SNMP SDK KIT user guide

About the document

Document explains the procedure of using the Blue Planet UAA SNMP SDK Kit. It specifies the pre-requisites to setup the environment and provides a clear explanation of different scripts provided by the container.

Pre-requisites

1. User should have access to artifactory.ciena.com
2. Docker software
3. Any IDE software (Recommended: IntelliJ Idea)
4. This document is to be used along with the SNMP SDK RA Development user guide

Docker

Docker is a software platform for building applications based on **containers** — small and lightweight execution environments that make shared use of the operating system kernel but otherwise run in isolation from one another.

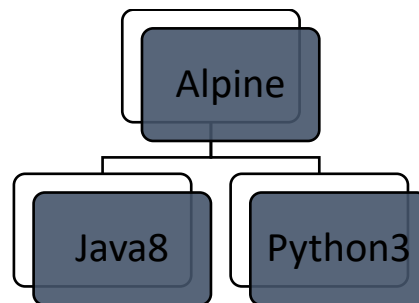
UAA-SNMPSDK image

uaa-snmpsdk docker image comes with a complete program execution environment and all the scripts required to facilitate the RA development process.

Execution Environment

The **uaa-snmpsdk** image is built on top of the minimal Docker image **based on Alpine Linux** with a complete package index and is 5mb in size.

On top of the base image, Java8 & python3 are installed with all required dependencies.



Pulling the uaa-snmpsdk image

The **uaa-snmpsdk** image is stored/maintained in the artifactory.ciena.com/blueplanet/uaa-snmpsdk repository. Docker pull command for reference

```
docker pull artifactory.ciena.com/blueplanet/uaa-snmpsdk:<beta-23.04>
```

NOTE

- Docker pulls the image from the repository based on the tag specified in the above command (**example: beta-20.10**).
- If no tag is specified, the docker would automatically try to pull the image with latest tag from the specified repository.
- Docker saves the pulled image in the local server and can be re-used in the future to run or use the scripts offered by image.

Running the uaa-snmpsdk image

Execute the following command to run the docker image -

```
docker run -v$(pwd):/home --rm -it artifactory.ciena.com/blueplanet/uaa-snmpsdk:<beta-23.04>
```

Here:

-v \$(pwd):/home

The option **-v** in the docker command is used to mount the folders to the containers. The option in this case informs the docker to mount the current working directory (**\$(pwd)**) to the **/home** location of the container.

NOTE

The value **/home** should not be changed and is a project default folder to mount the RA files and folders.

--rm

This option is added to delete the container once the process is completed.

-it

The option '**i**' sets the mode to interactive and option '**t**' is used to mention the tag name.

uaa-snmpsdk interactive mode

When the above command is executed, the container will show a prompt with a few options to run different scripts as shown below -

```
Please select an option based on the action required
1. Setup Project environment(To be done only the first time)
2. Run the snmp template generation script
3. Run script to generate PM XMLs from excel sheet
4. Build the RA from profile XMLs
5. Generate RA Reference Document

Enter the required option: █
```

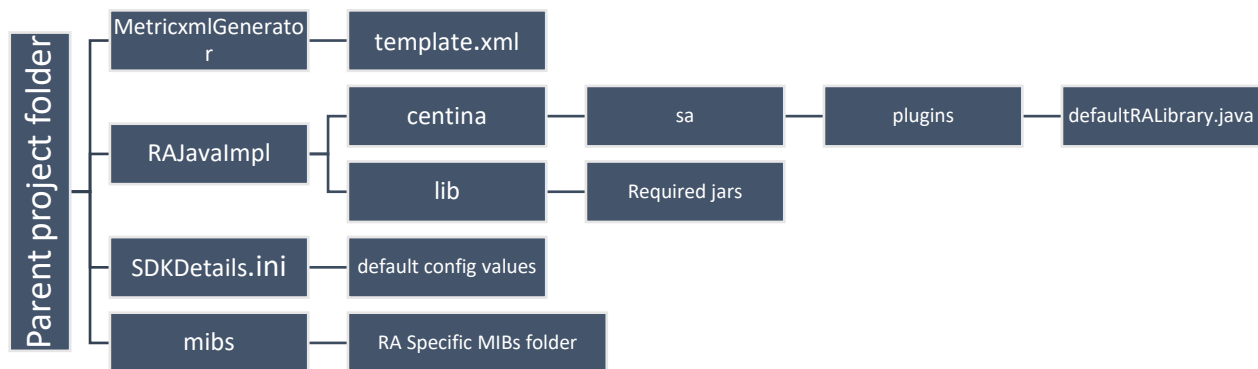
All the possible actions are listed in the prompt and the script would perform multiple tasks in the background to achieve the selected action.

NOTE

The following RA Terminology [XMLs] used is explained in the RA development user guide.

Setup Project Environment (*To be done only the first time*)

There is a fixed folder structure required as shown below to use the **uaa-snmpsdk** container



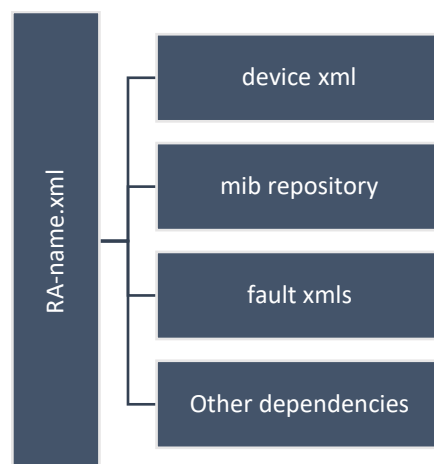
NOTE

- The parent project folder is to be created during the first run and is to be maintained overtime to continue developing the RAs.
- The other dependency folders and files are to facilitate the creation/update of different files in the RA development process.
- The folders and files represented in the above image are created when this option is selected.

Run the snmp template generation script

PRE-REQUISITE | MIBs to be used in this process should be error-free.

This option would prompt for the RA Name and then read the MIBs from that RA MIBs directory to create the profile, device, and fault xml templates.



Run script to generate PM XMLs from excel sheet

PRE-REQUISITE

An Excel sheet filled with the metric details as explained in the RA development user guide.

This option reads the data from the excel sheet mentioned by user in the prompt to create the basic PM and PM template XMLs

Build the RA from profile XMLs

PRE-REQUISITE

- All the RA related XMLs are handled as per the requirement and guidelines mentioned in the RA development user guide.
- The Java implementation is done as per the requirement and guidelines mentioned in the RA development user guide.

This option prompts for RA name as input, then builds the Java implementation and the RA with a “.pro” extension.

During the first run, this option would create the folders repository/profiles in the parent project folder. The built RA pro can be found in the repository/profiles folder.

NOTE

The built RA-**<Name>**.pro file is the final step in the RA development process and this file can be deployed to UAA platform for monitoring.

Generate RA Reference Document

PRE-REQUISITE

- All the RA dependent XMLs are handled as per the requirement and guidelines mentioned in the RA development user guide.

RA Reference Document is the summary of all the fault, inventory, and performance support present in the RA. This option would prompt for RA name and generate a document in the parent project folder/docs with the RA name.

Contacting Blue Planet

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