RITE DASC2023_Prototype Tutorial

This tutorial contains simplified instructions for downloading and exploring the prototype Compliance Dashboard feature of RITE on a Windows PC using synthetic data supplied as an ingestion package

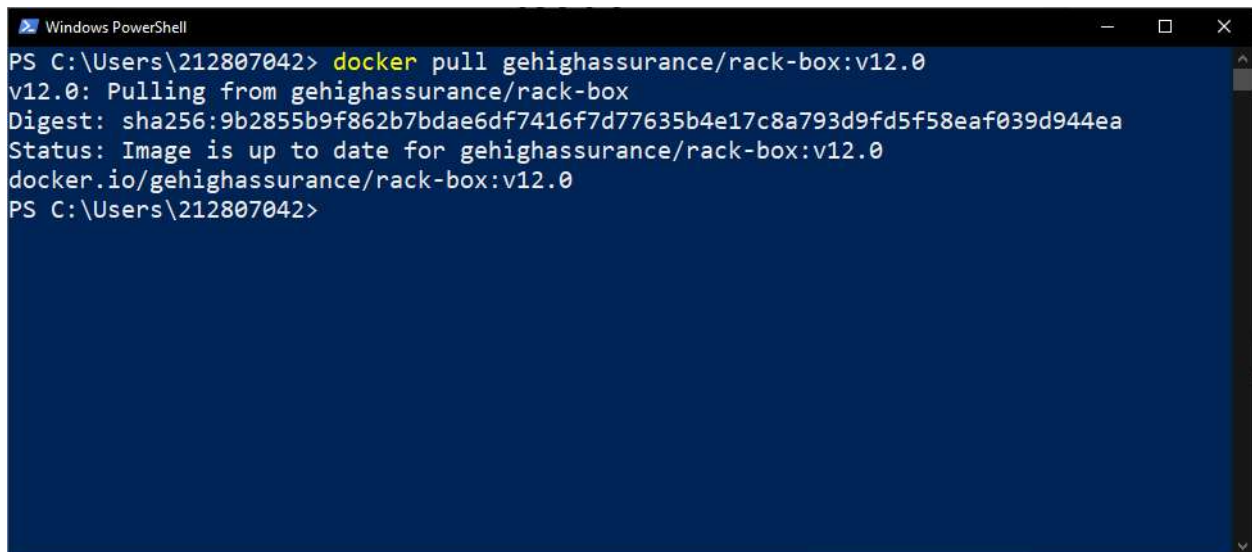# Step 1: Setting up RACK

Details about RACK can be found at https://github.com/ge-high-assurance/RACK

In this section, we will only describe the bare minimum necessary to get RACK running.

Step 1.1:

Download and install docker from https://www.docker.com/products/docker-desktop/

Step 1.2:

Open Windows Powershell and execute `docker pull gehighassurance/rack-box:v12.0` command

Note: When the image is successfully pulled for the first time, a "Downloaded image …" message will appear instead of the "Image is up to date …" message shown above

Step 1.3:

Start a RACK docker instance by running the command `docker run --detach -p 3030:3030 -p 8050:8050 -p 8080:80 -p 12050-12091:12050-12091 gehighassurance/rack-box:v12.0`
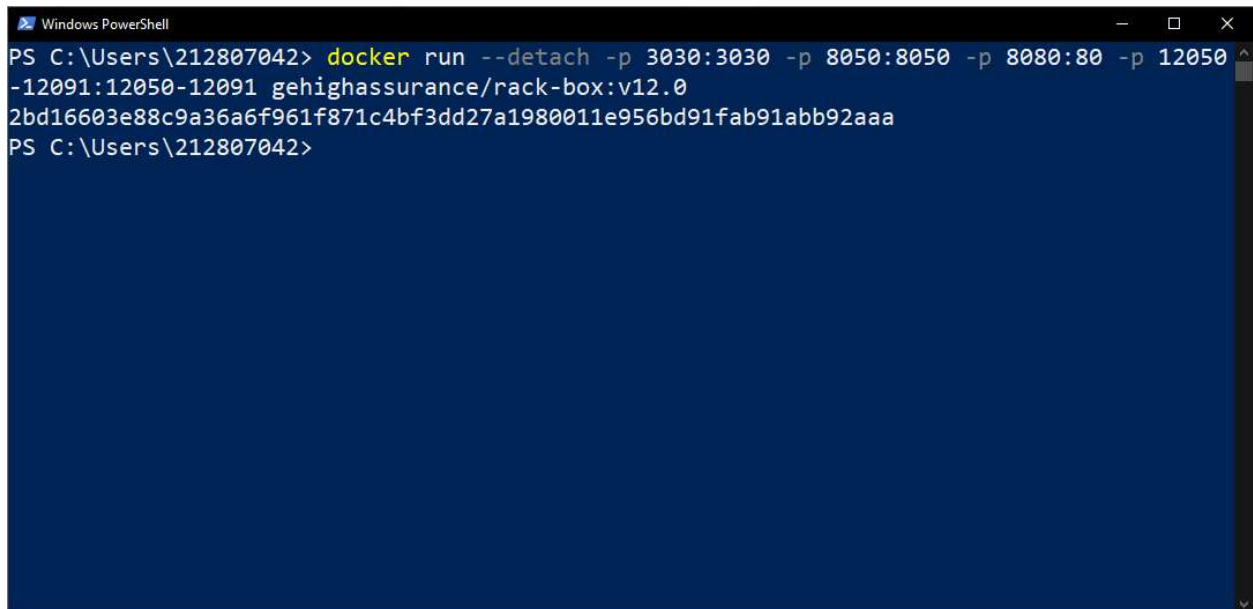
```
Windows PowerShell                                              —   □   ×
PS C:\Users\212807042> docker run --detach -p 3030:3030 -p 8050:8050 -p 8080:80 -p 12050
-12091:12050-12091 gehighassurance/rack-box:v12.0
2bd16603e88c9a36a6f961f871c4bf3dd27a1980011e956bd91fab91abb92aaa
PS C:\Users\212807042>
```

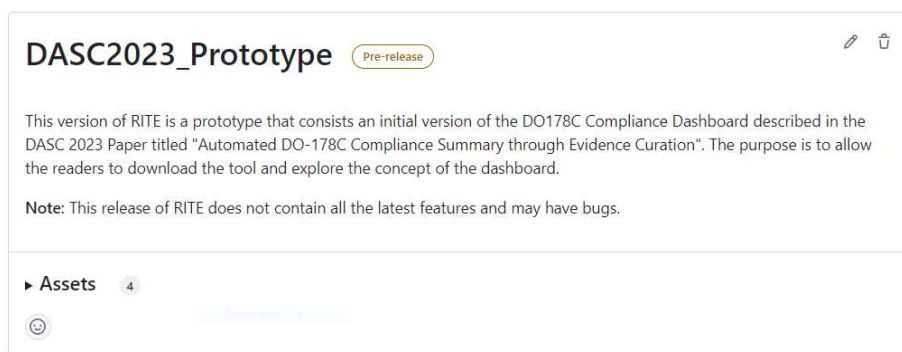RACK should be now up and running!!!

Step 2: Downloading the RITE Prototype

Step 2.1:

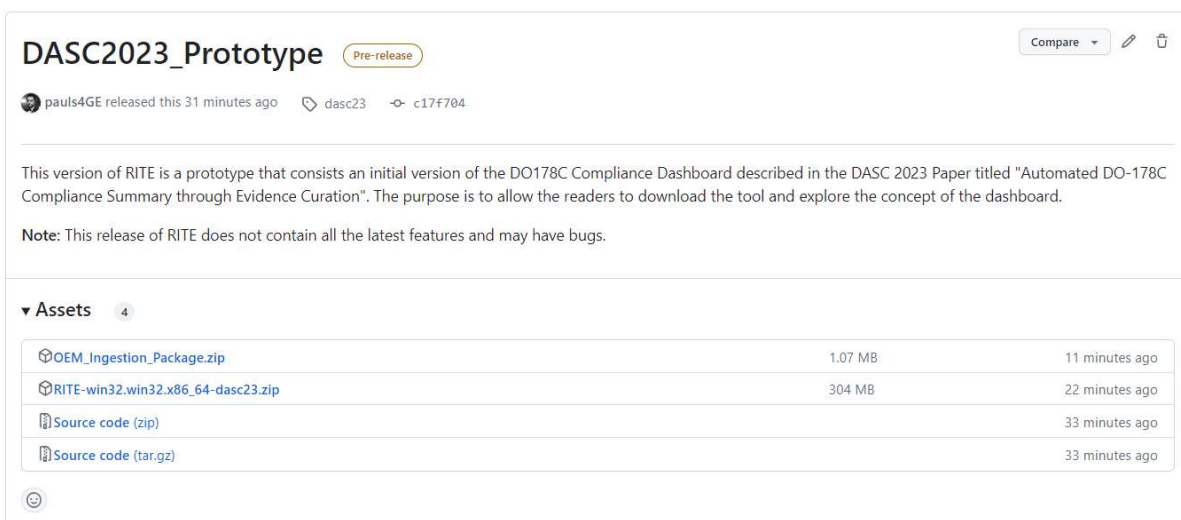Navigate to the Release page https://github.com/ge-high-assurance/RITE/releases

Step 2.2:

Go to the DASC2023_Prototype release

Step 2.3:
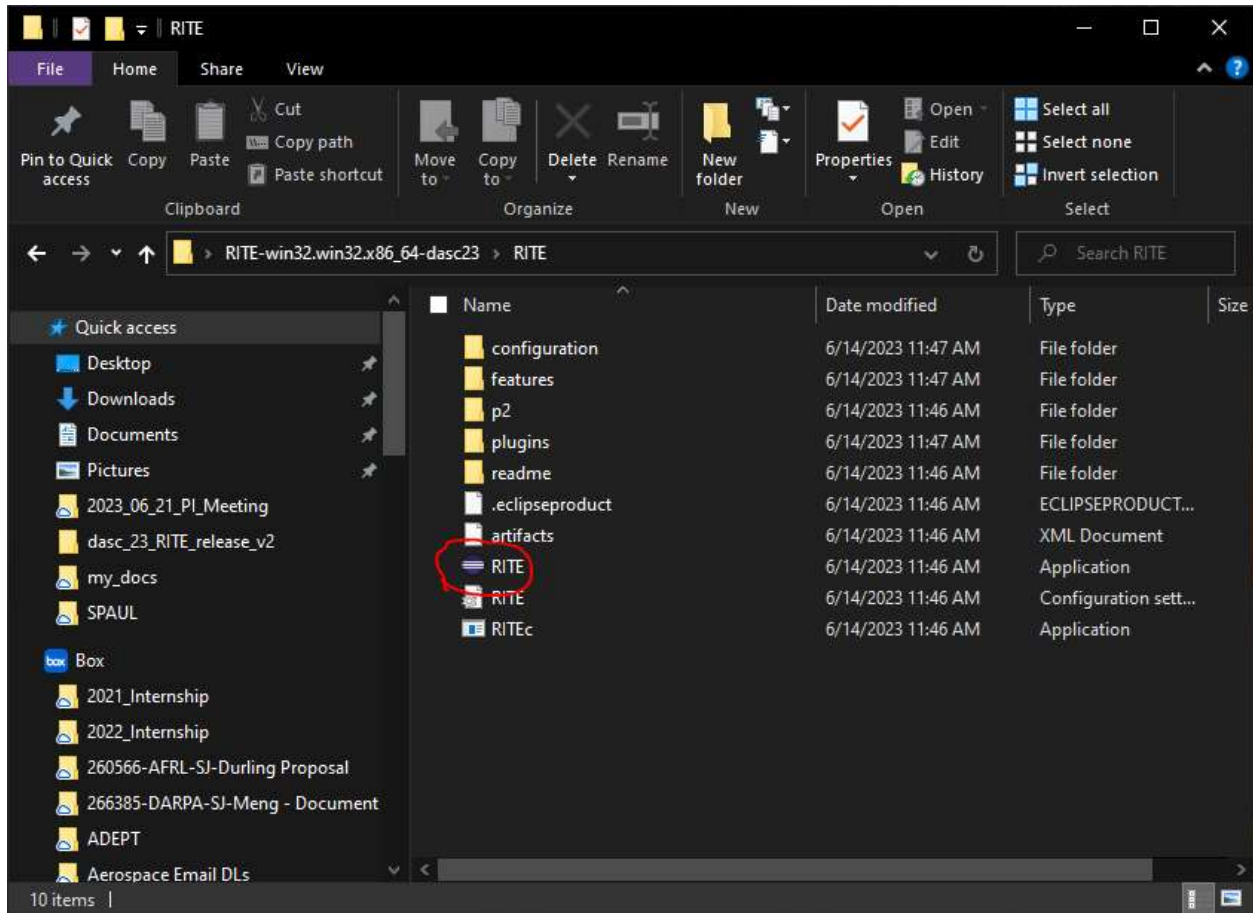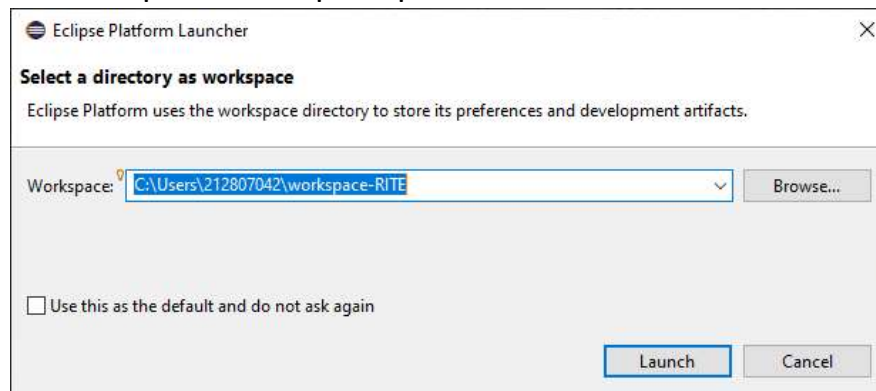
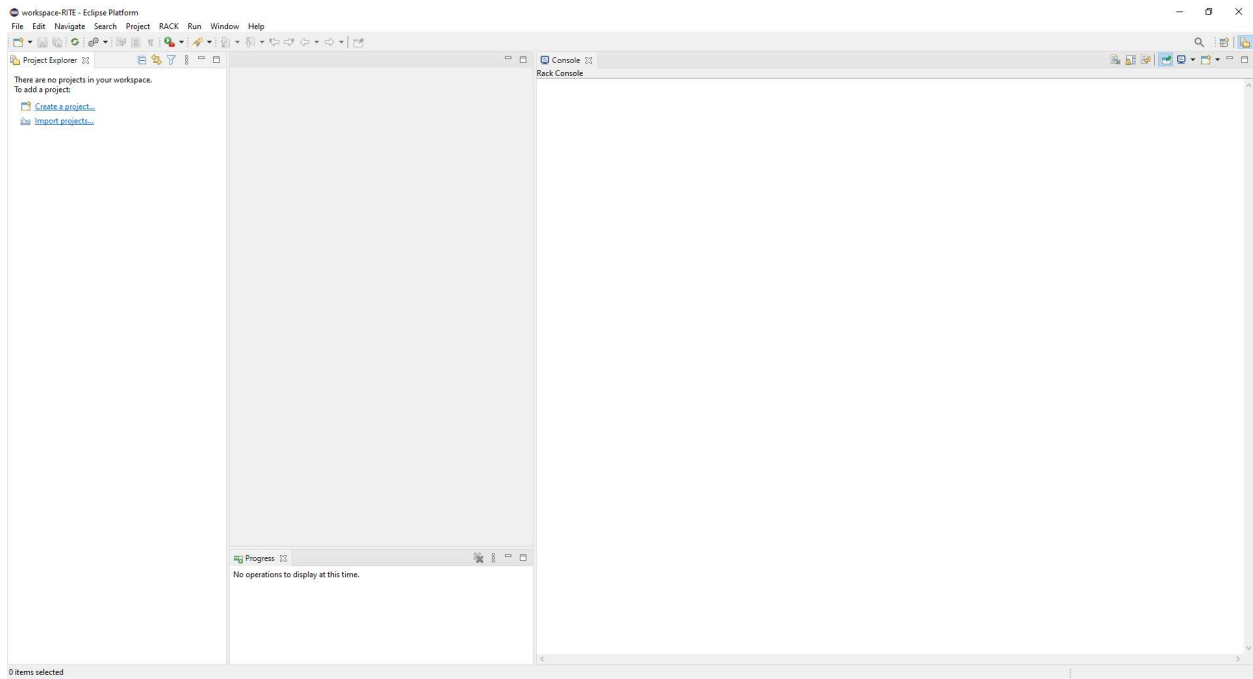Download the RITE-win32.win32.x86_64-dasc23.zip file

Step 2.4:

Unzip the RITE-win32.win32.x86_64-dasc23.zip file and click on the folders until you reach the directory with the RITE executables. Then click on the RITE application button as shown below

Select a workspace when prompted and click on the "Launch" button

RITE should now be running as an Eclipse window!!

Step 3: Downloading the Sample Ingestion Package

We provide sample data corresponding to the OEM ontology described in the DASC 2023 paper in the form of a readymade ingestion package. From the release page shown in Step 2.3, download the OEM_Ingestion_Package.zip and unzip it somewhere convenient.

Step 4: Ingesting the Data into RACK
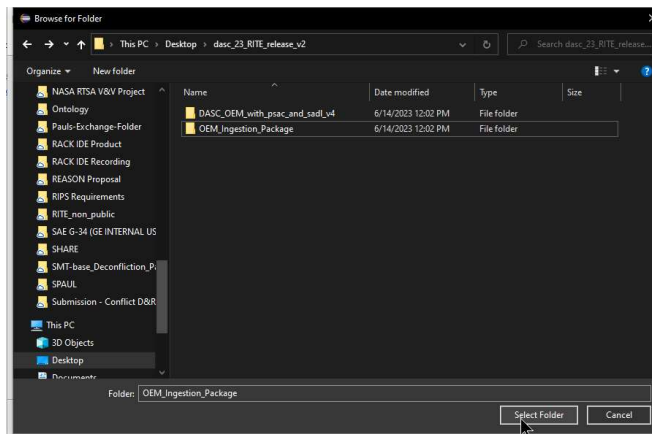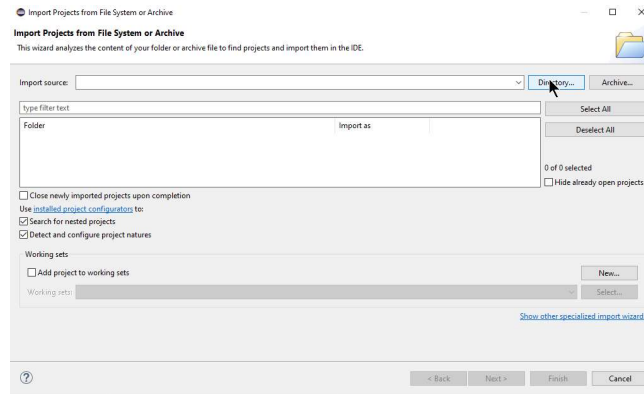
With RACK running and RITE launched, follow the steps:

Step 4.1:

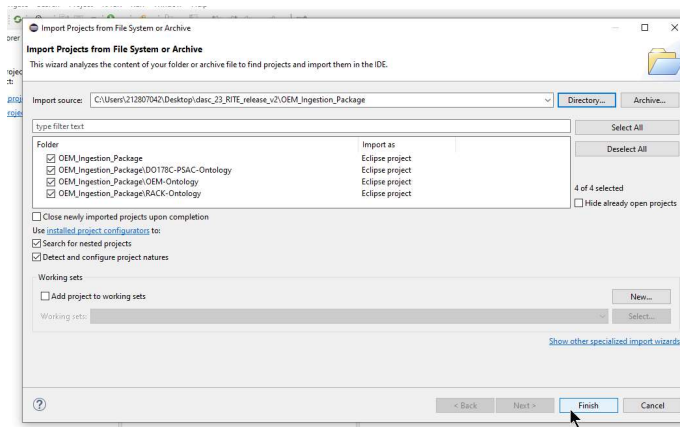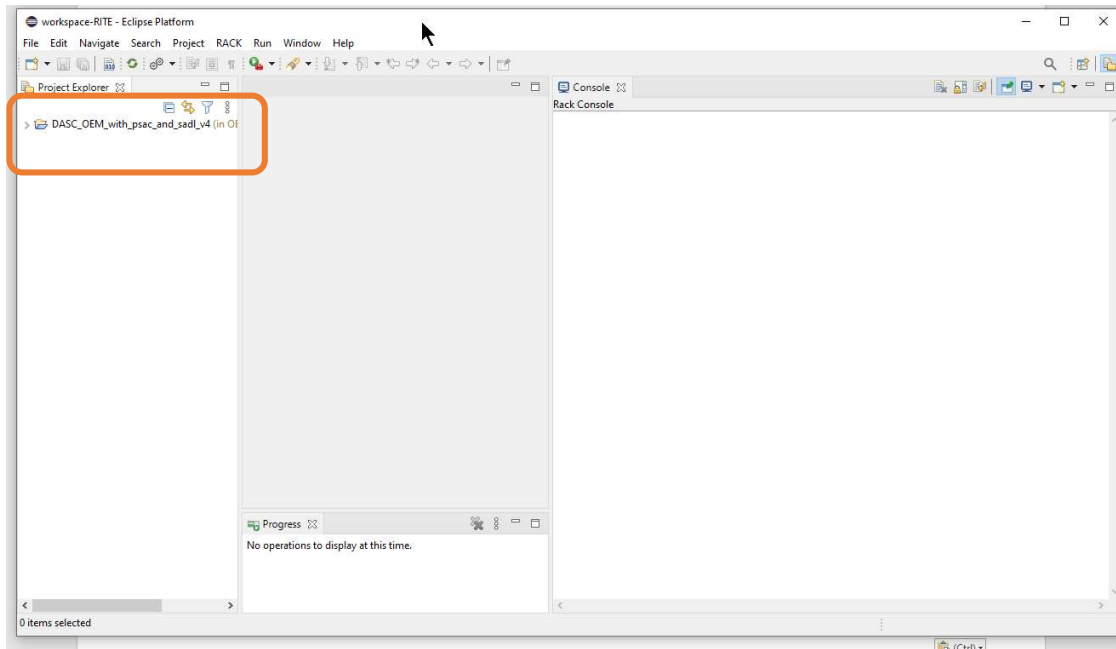Click on "File" and then Select "Open Projects from File System"
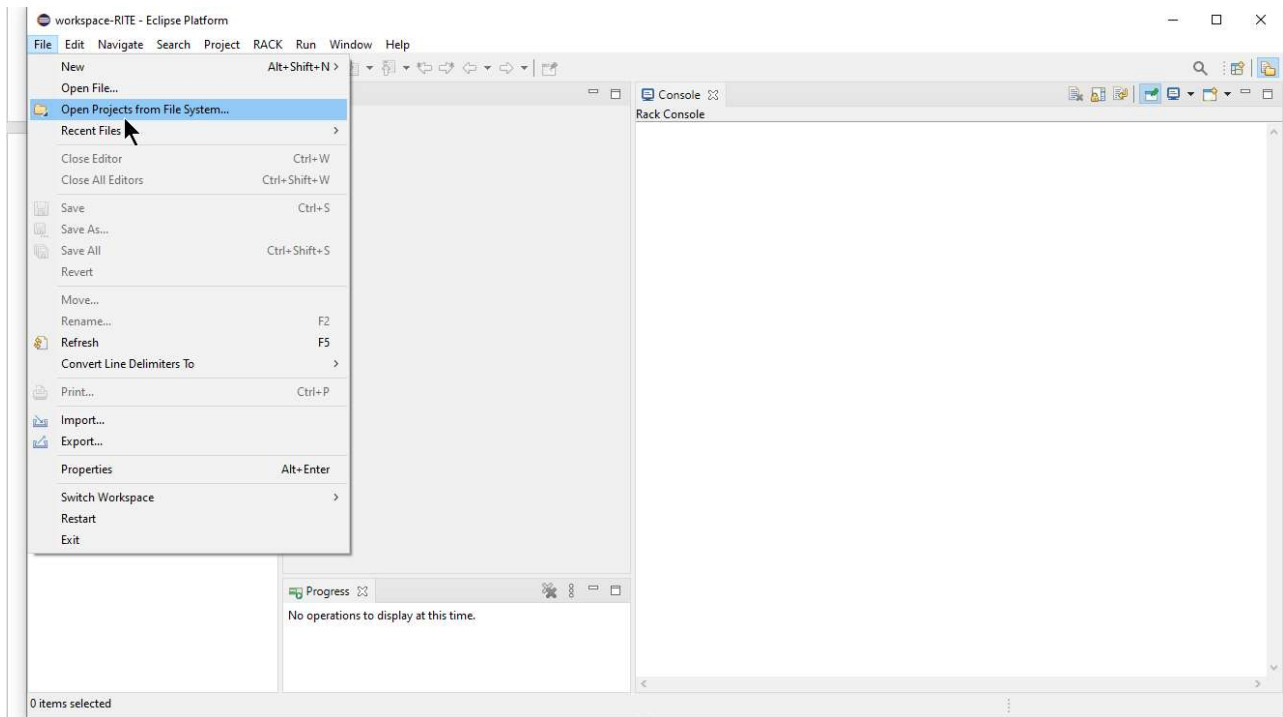
Step 4.2:

In the pop up that appears, click on "Directory" and then select the extracted Ingestion Package directory.
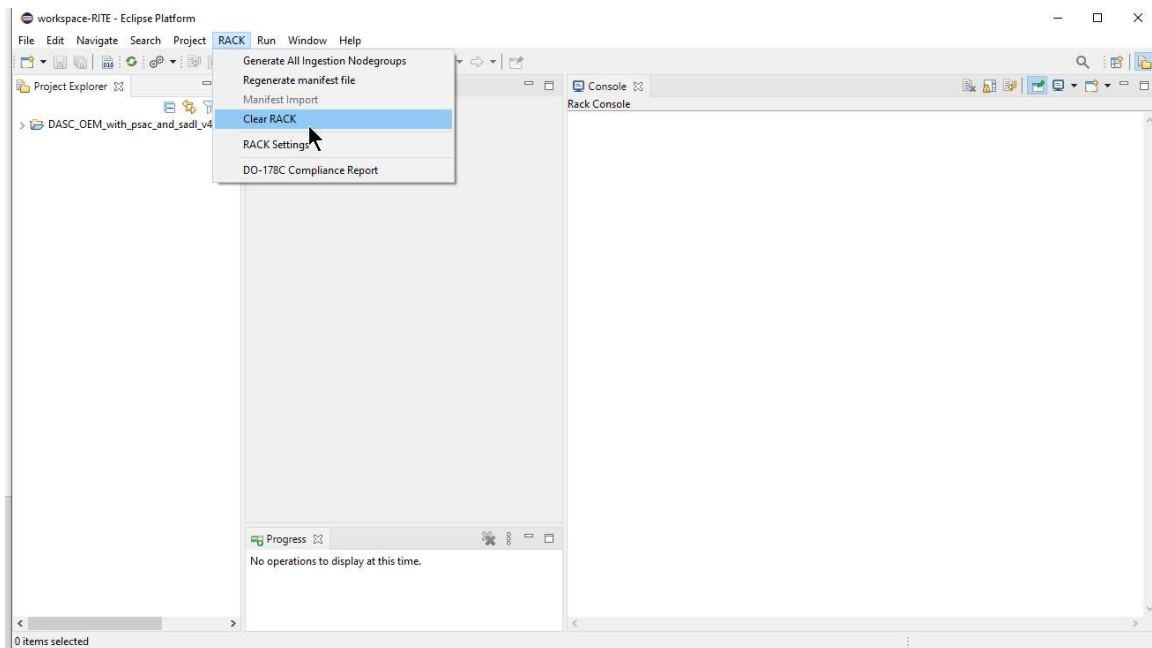

Then just click on "Finish"

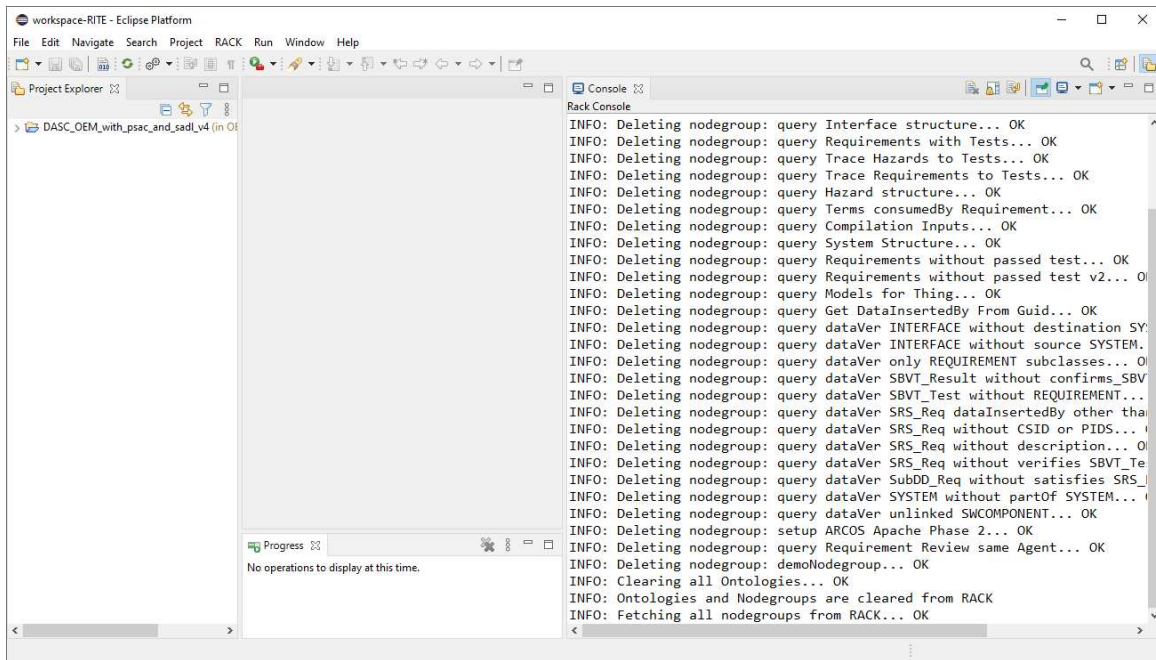The ingestion package should now be visible on the "Package Explorer" pane

Step 4.3:

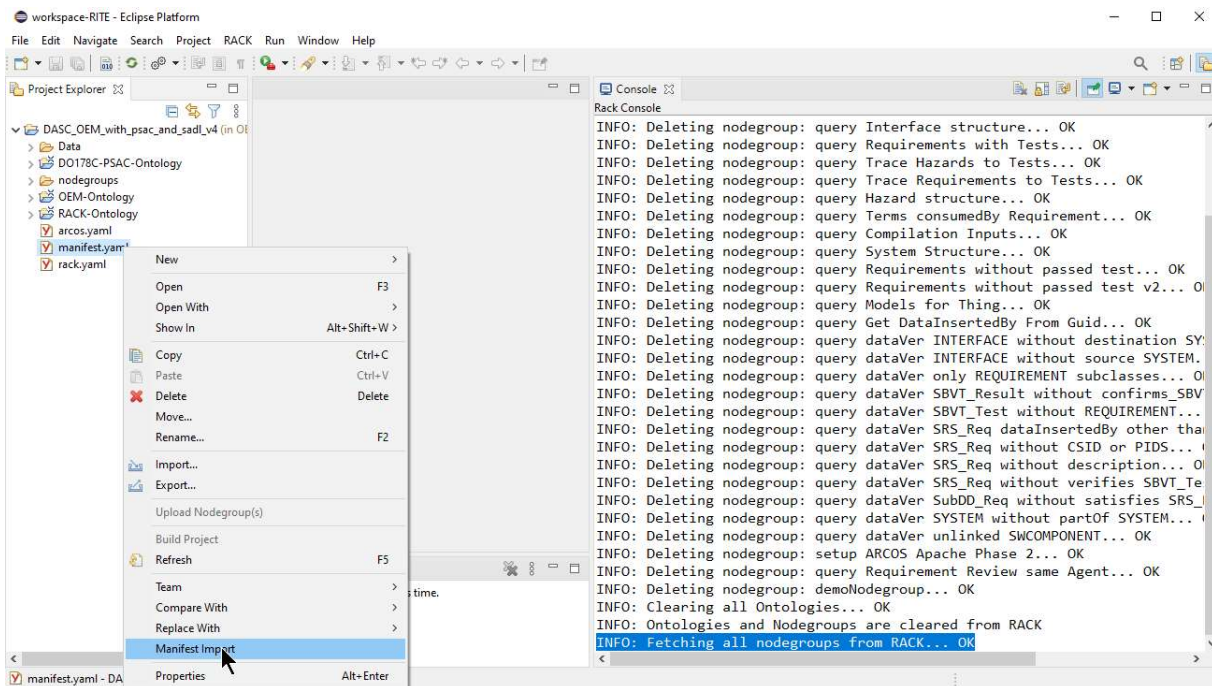Click on the "RACK" menu from the toolbar and select "Clear RACK"

The clearing action is complete when the "INFO: Fetching all nodegroups from RACK... OK" message is shown on the console.
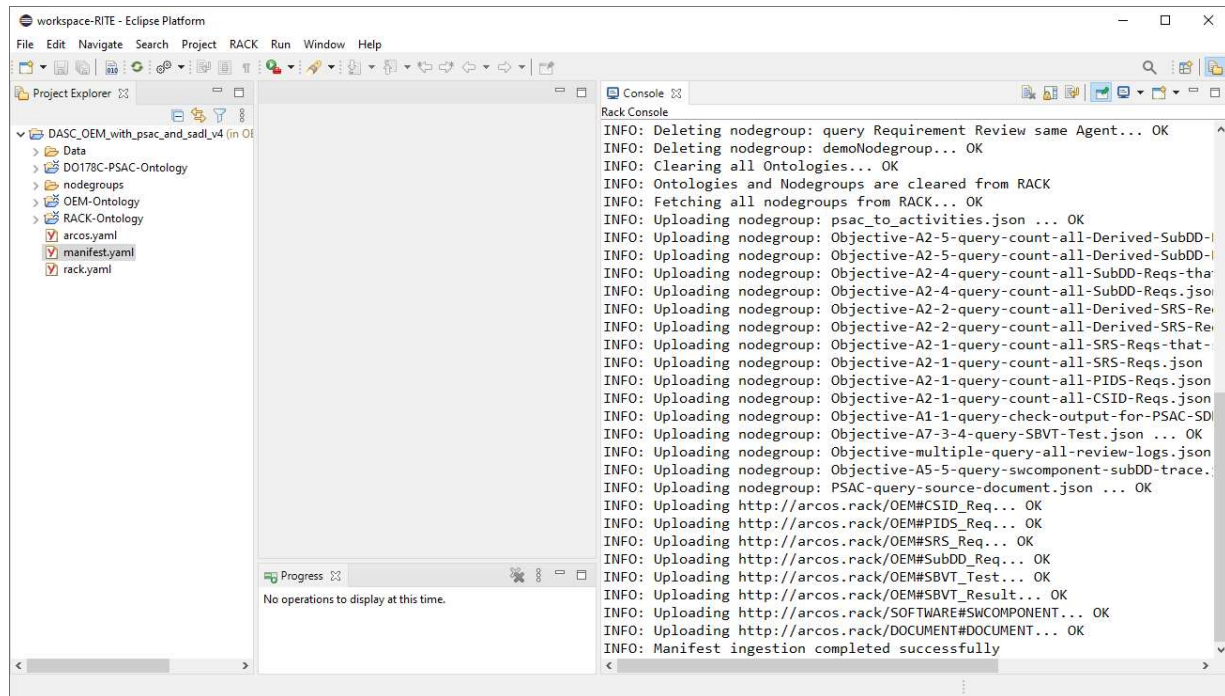

Step 4.4:

Expand the ingestion package on the left, right click on the "manifest.yaml" and click on the "Manifest Import" button
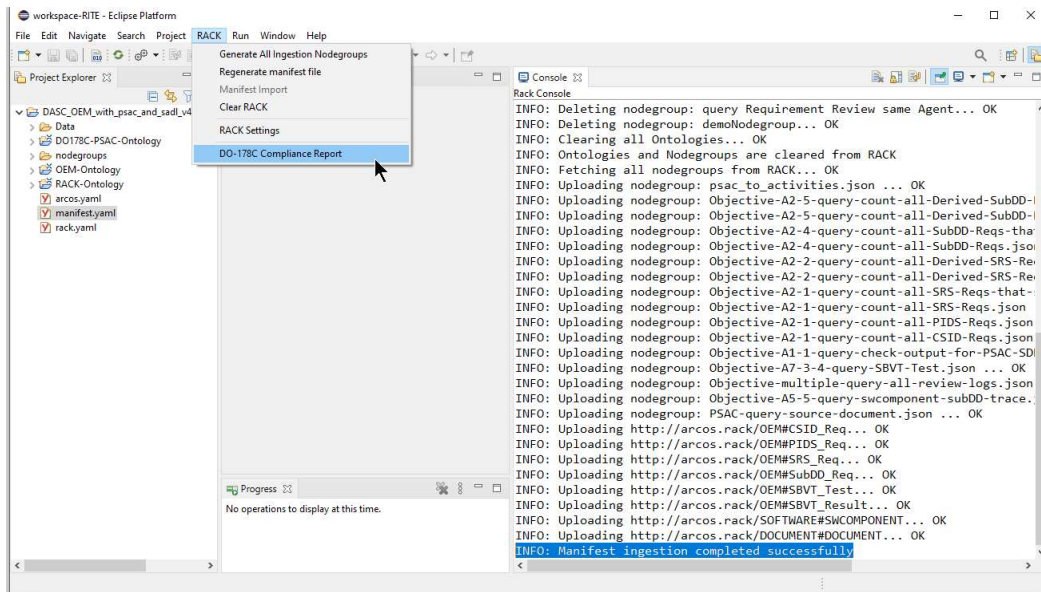
"INFO: Manifest ingestion completed successfully" indicates successful ingestion

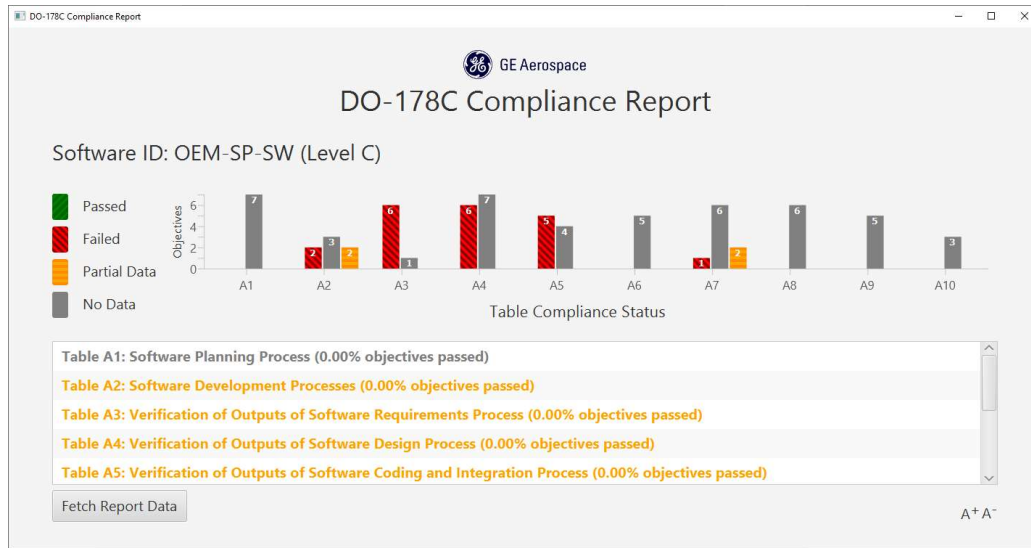# Step 5: Running the Compliance Dashboard

Step 5.1:

From the "RACK" menu, click on the "DO-178C Compliance Report" button

When the dashboard pops up, press the "Fetch Report Data" button, and wait

After the data is fetched the dashboard will be ready for you to explore!!

NOTE:

1. This dashboard is only a prototype, and many aspects are still incomplete. So, several buttons and menu items may not work.

2. There may be bugs that we have not accounted for.