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

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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 <u>https://www.docker.com/products/docker-desktop/</u>

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



RACK should be now up and running!!!

Step 2: Downloading the RITE Prototype

Step 2.1:

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

Step 2.2:

Go to the DASC2023_Prototype release

DASC2023_Prototype Pre-release	Ø	Û
This version of RITE is a prototype that consists an initial version of the DO178C Compliance Dashboard described in DASC 2023 Paper titled "Automated DO-178C Compliance Summary through Evidence Curation". The purpose is to the readers to download the tool and explore the concept of the dashboard. Note: This release of RITE does not contain all the latest features and may have bugs.	n the allow	r
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Step 2.3:

Download the <u>RITE-win32.win32.x86_64-dasc23.zip</u> file

Releases / dasc23



Step 2.4:

Unzip the <u>RITE-win32.win32.x86_64-dasc23.zip</u> 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.

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Then just click on "Finish"

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

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Step 4.3:

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

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

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Step 4.4:

Expand the ingestion package on the left, right click on the "manifest.yaml" and click on the "Manifest Import" button

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"INFO: Manifest ingestion completed successfully" indicates successful ingestion

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Step 5: Running the Compliance Dashboard

Step 5.1:

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

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

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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.