Frequently Asked Questions:

Prize Challenge Phase 2 Validation Phase Processing

Validation steps are colored in <u>blue</u> (see Q0001 to have more information about these steps). CLI commands are colored in green.

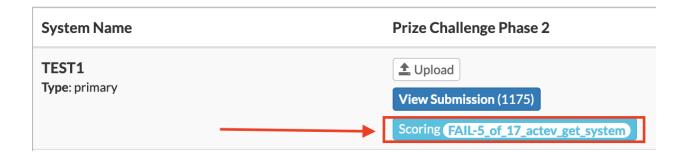
Q001: How does the evaluation process work?

First, you need to validate your system by submitting a URL pointing to your system on the web platform (https://actev.nist.gov).

An automatic process will be in charge of validating your system. It consists of multiple steps to check if your system is downloadable, installable on a fresh instance and runnable on a validation set. Here is a non exhaustive list of the steps:

- actev_get_system: call actev get-system using your URL as well as your credentials to download your system.
- actev_cmd_test: tests the installation of the CLI.
- actev_validate_system: check that the structure of the CLI, the method signatures of the
 entry points as well as the structure of the container output have not been modified. Also
 check that your container outputs are complete (see Q004 to learn more about container
 output).
- actev system setup: call actev system-setup.
- actev_design_chunks: call actev design-chunks.
- actev experiment init: call actev experiment-init.
- actev_process_chunks: call actev pre/post/process-chunk and reset-chunk on all the chunks.
- actev_merge_chunks: call actev merge-chunks.
- actev_validate_execution: check that your container outputs are similar to the result of the automatic process to make sure that your system is reproducible.

You can check the progress of these steps via the web platform, by checking the status and the logs clicking on the web platform:



All these commands are executed on a new Ubuntu VM. At the end of this process, NIST makes a snapshot of your VM to evaluate it further on private data sets.

Q002: My system is stuck at actev_test_cmd step but seems to be valid. What is going on?

The issue actually comes from the next step: actev_get_system. Credentials are possibly not correct, NIST is not able to get your system and may wait indefinitely for manual assistance to get the right credentials. In this case, check if you are able to get your system in local using actev get-system and submit new credentials.

If the problem persists, contact <u>diva-nist@nist.gov.</u>

Q003: My submission is a zip file and I got a *Permission denied* error on a script that should be executable.

Sometimes, tools to zip files do not support the permissions conservation and NIST is not able to execute them. If such an error occurred, the best solution is to convert your zip archive into a tar archive.

Q004: My system doesn't pass the actev_validate_system step. How can I resolve this?

You need to include your container output, which is a trace of the local execution of your system on a validation set, so that NIST can compare their results with yours to make sure that your system is reproducible.

A container output is a directory contained in *diva_evaluation_cli/container_output* and its name is composed of: <validation set name>_<team name>. (e.g. ActEV-Eval-CLI-Validation-Set1_Nist)

Reference container outputs are available, they represent validation sets and are named by <validation set name>. You should use them to validate your system.

A container output directory should contain:

- *output.json* your output on the validation set used (generated by your system)
- *chunk.json* the chunk file designed using the validation set (generated by your system)
- *file.json* the file index used (copied pasted from a reference container output)
- activity.json the activity index used (copied pasted from a reference container output)

Q005: My system is stuck at actev_validate_system step, but seems to be valid. What is the issue?

The issue comes from the next step: actev_system_setup. Two possibilities:

- The command actev system-setup is waiting for a manual assistance that cannot occur since we use an automatic process: make sure that your script is able to run without any manual actions.
- The command "actev system-setup" is constantly restarting the instance, because one of your conditions is not able to stop the setup when an issue occurred:
 Make sure that your system is able to stop and return an error if any issue occurred.

Q006: My system fails at actev process chunk step but works fine on my side.

Make sure you install all the dependencies using the actev system-setup, even python packages.

Q007: My system doesn't pass actev_validate_execution step. What is going on?

Two possibilities:

- The most likely is that something went wrong in the previous steps and did not return
 any error. The error usually comes from: actev design-chunks, actev experiment-init or
 actev process-chunk. Send an email to diva-nist@nist.gov if the logs are not sufficient to
 investigate the issue.
- Your system is not reproducible and output from the NIST execution is too different from yours.