AnalysisBase image

Use on LCRC

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introduction

- Atlas already provided docker image for analysis basis

cern/slc6-base
By cern · Updated 7 months ago

Scientific Linux CERN 6 (SLC6)

| Container | Linux | x86-64 |

cern/cc7-base
By cern · Updated a month ago

CERN CentOS 7 (CC7)

| Container | Linux | x86-64 |

- But LCRC doen't support docker
- Instead, it use singularity.
- This tutorial will show how to make a signularity image from officail cern-docker image

Singularity

Quick Start
These docs are for Singularity Vers

Docker:

1. Downloa and install docker on our leptop.

    https://www.docker.com/products/docker-desktop

2. Get official ATLAS docker image:

    https://hub.docker.com/r/atlas/analysisbase

    Select one of the tag name and run this on your terminal:

    $ docker pull atlas/analysisbase:tag

Convert to Singularity

You don't need to install singularity on you computer. There is a docker image for converting docker-to-singularity.

Simply just run this on your terminal:

$ docker run -v /var/run/docker.sock:/var/run/docker.sock -v `pwd`:/output --privileged -t --rm s
ingularityware/docker2singularity:v2.3 atlas/analysisbase:tag

This may take few minutes. After the container executed successfully you can find your singularity image in the same directory where you run the docker command.

Now you can copy your singularity image to LCRC. You can modify singularity image name if it is too long.

Execute singularity on LCRC

Assume you have your singularity image on LCRC.

Setup: to use singularity on LCRC run following command

$module load singularity

Now you can execute you singularity

$ singularity exec --bind <run_dir>/:/mnt/ mysingularity_image.simg <comand to be executed>

Example command: this will setup atlas environment.
$ singularity exec --bind $PWD:/mnt/ analysisbase_image.simg `/home/atlas/release_setup.sh`

Execute singularity on LCRC

The example on previous slide will just setup the container and will do nothing else. You have to create a script file and put you commands in it and pass it to container as an argument.

Or you can run in interactively

singularity shell --bind $PWD:/mnt/ analysisbase_image.simg

You will get a shell within your container, then you can do many things:

```
$ source /home/atlas/release_setup.sh
$ ls
$ echo "I am in side the container"
$ exit
```

Execute singularity on LCRC

More on singularity

http://singularity.lbl.gov/quickstart