

Thoughts on C7/C8 virtualization

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Motivation

- ▶ C7 building process may differ from distro to distro
 - ▶ Absence of reference/official binary builds
 - ▶ Sometimes having legacy parts is required
- ⇒ Can cause problems for cross-check between versions/builds/deployments/etc

Decreasing onboarding threshold for newcomers!

Building CORSIKA docker?

- ▶ Distribution is password-protected
- ▶ coconut “interactive” interface
- ▶ What is “bare” environment for C7?

My implementation

<https://gitlab.iap.kit.edu/kostunin/c7viz>

- ▶ Simple visualization (using COAST) by V. Lenok
- ▶ [SiMM](#) for steering (Python 2.7 legacy)
- ▶ Docker containerization

default (cached) coconut configurations in `app/defaults`

```
FROM ubuntu
ARG CORSIKA_PASSWORD
RUN apt-get update
RUN apt-get --assume-yes install git wget gfortran g++ make
COPY bootstrap.sh /root/bootstrap.sh
COPY app/ /root/app/
WORKDIR /root
RUN chmod u+x bootstrap.sh
RUN ./bootstrap.sh $CORSIKA_PASSWORD
```

CORSIKA with [SiMM](#):

```
./deploy_simm_docker.sh
docker-compose exec corsika /simm/py/simm.py
```

Conclusion and discussion

Containerization of CORSIKA7 is *also* important

- ▶ Reduce the threshold for newcomers
- ▶ Having “official” build (e.g. for verification/validation purposes)
- ▶ Distribution for non-physicists (e.g. outreach/visualization experts)
- ▶ Can help with “smooth transition” C7→C8 for end-users

... and seems not very complicated

- ▶ [c7viz](#) repo can be used as starting point