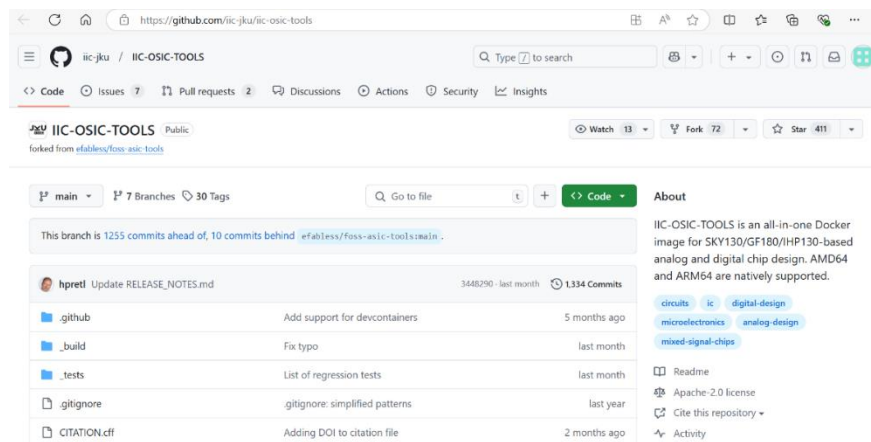




Guidelines on installing and launching OpenROAD

- 1) The opensource tools could be standardised on the docker image from <https://github.com/iic-jku/iic-osic-tools>



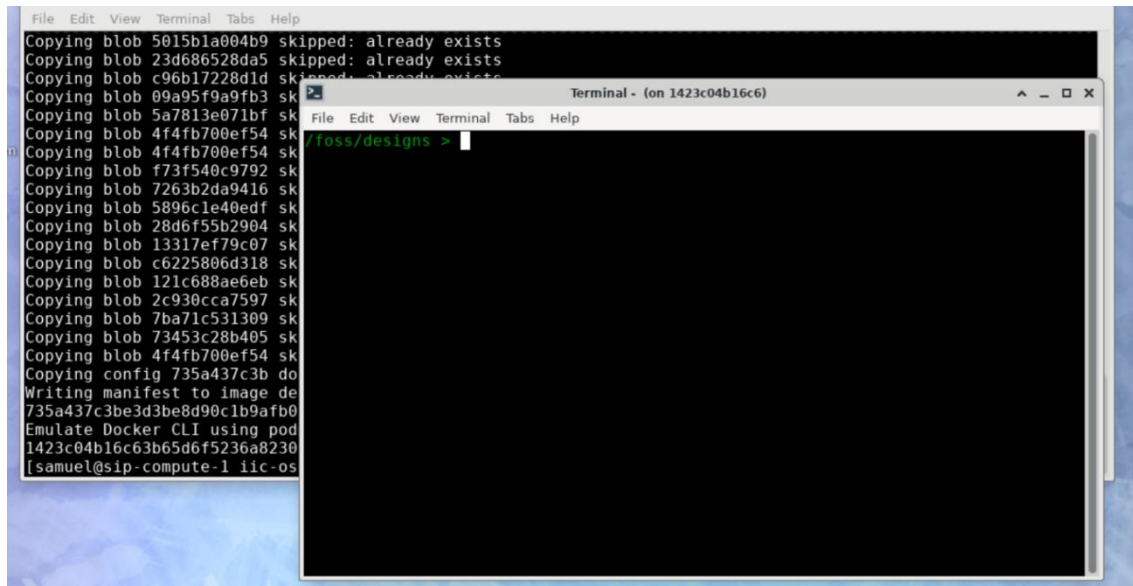
- 2) The aim is to launch the opensource tools inside the docker container of iic-osic-tools
- 3) Please make sure git is installed in the Linux environment
- 4) **git clone** <https://github.com/iic-jku/iic-osic-tools> in your home directory
- 5) **git clone** <https://github.com/The-OpenROAD-Project/OpenROAD-flow-scripts.git> in your home directory
- 6) **export CONTAINER_USER=root** in the linux environment
- 7) OpenROAD flow scripts installed in the home directory should be exported in the linux environment to be reflected inside the docker container
export DESIGNS=/home/*/OpenROAD-flow-scripts in the linux environment
- 8) There are two approaches of using the docker container in iic-osic-tools.
 - a. /start_shell.sh – this approach has a bug in opening the GUI
 - b. ./start_x.sh - this is the recommended approach with a workaround
- 9) Open the start_x.sh file inside the iic-osic-tools directory
 - a. **vi iic-osic-tools/start_x.sh**
 - b. The docker run command must be modified and saved

```
${ECHO_IF_DRY_RUN} docker run -d --user  
"${CONTAINER_USER}:${CONTAINER_GROUP}" -e "DISPLAY=${DISP}" -v  
"${DESIGNS}:/foss/designs:rw" ${PARAMS} --privileged --name  
"${CONTAINER_NAME}"  
"${DOCKER_USER}/${DOCKER_IMAGE}:${DOCKER_TAG}"
```

10) launch docker container inside the iic-osic-tools directory

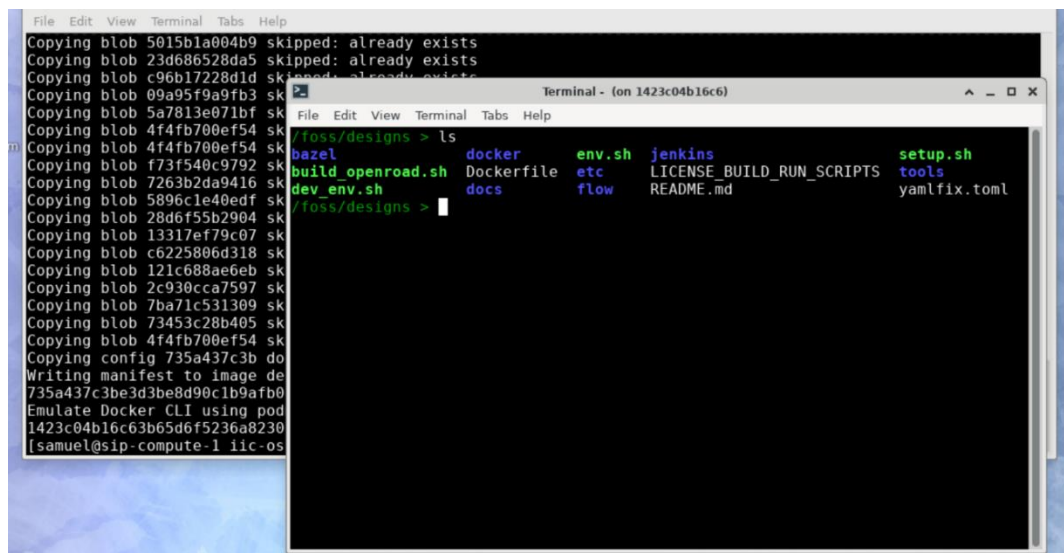
cd iis-osic-tools

./start_x.sh



11) A new terminal opens with **/foss/design >** as the working directory

12) List the files in **/foss/designs >** and you should be able to see the folders inside the openroad flow scripts in this directory

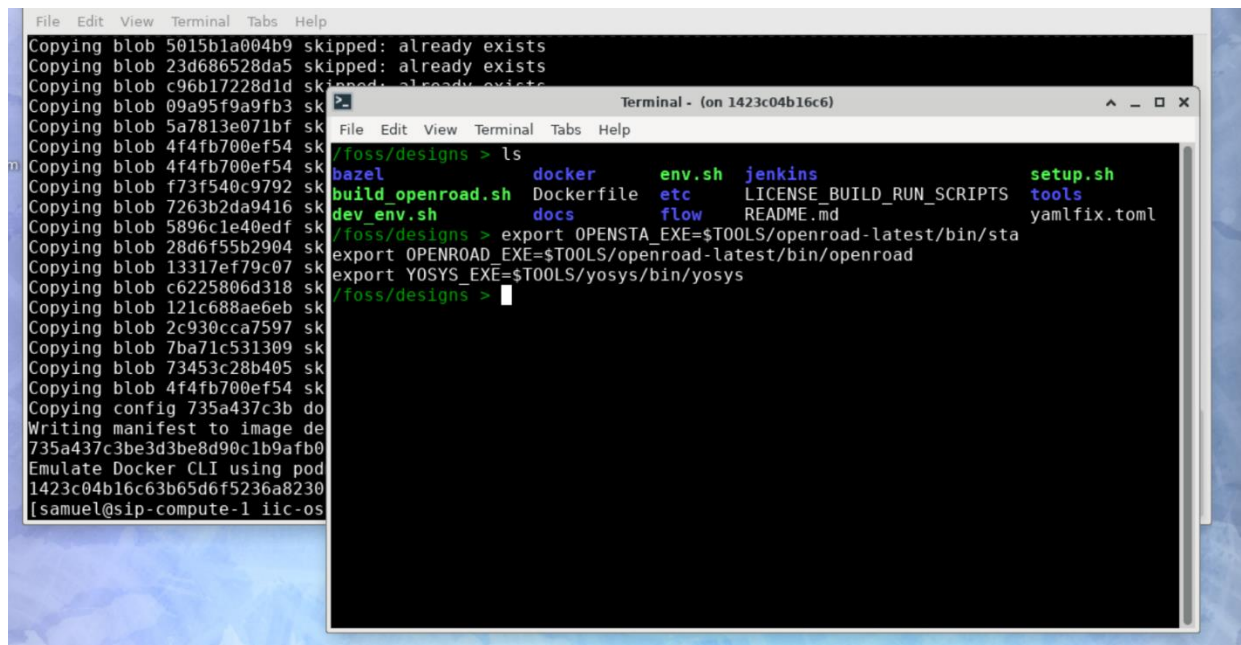


13) As a workaround mentioned in [IIC-OSIC-TOOLS/KNOWN_ISSUES](#) we will source the following three commands in **/foss/designs>**

export OPENSTA_EXE=\$TOOLS/openroad-latest/bin/sta

export OPENROAD_EXE=\$TOOLS/openroad-latest/bin/openroad

export YOSYS_EXE=\$TOOLS/yosys/bin/yosys



14) You should be able to run the designs using the **make** command inside the docker container

cd /foss/designs/flow

make

15) The GUI should be opened using the command below to make sure the openroad version of the run and the GUI is in sync. **OpenROAD v2.0-19249-geafd19f93**

\$TOOLS/openroad-latest/bin/openroad -gui

