

Analysis Tutorial Exercise - Solutions

1.
 - **wget alien.cern.ch/alien- installer**
 - **chmod u+x alien- installer**
 - **./alien- installer**
 1. select v2.9
 2. select installation directory /home/<yourhome>/alien
 3. select packages 'gshell' 'xrootd'
2.
 - **./alien- installer**
 1. select package 'root'
3.

prepare your environment:

```
export GSHELL_ROOT=$HOME/alien/api
export GLOBUS_LOCATION=$HOME/alien/globus/
export PATH=$GSHELL_ROOT/bin:$GLOBUS_LOCATION/bin:$PATH
export LD_LIBRARY_PATH=$GSHELL_ROOT/lib:$GLOBUS_LOCATION/lib:$LD_LIBRARY_PATH
```

 - **grid- proxy- init**
4.
 - **alien- token- init [AFS/AliEn username]**
5.
 1. > **aliensh**
 - **whoami**
 - **clear**
 - **pwd**
 - **cd**
 - **cd ..**
 - **cd /**
 - **cd**
 - **ls**
 - **ls - la**
 - **ls - b**
 - **ls - m**
 2. > **aliensh**
 - **cd**
 - **mkdir bin jdl macros par xml**
6.
 1. > **aliensh**
 - **cd /alice/cern.ch/tutorial/bin/**
 - **cat startana**
 - **more startana**
 - **less startana**
 - **whereis startana**
7.
 1. > **aliensh**
 - **cp /alice/cern.ch/tutorial/bin/startana file:/tmp/**
8.
 1. > **aliensh**
 - **cp file:/tmp/startana ~/bin/**
9.
 - > **aliensh**

1. `cd /alice/cern.ch/tutorial/data`
 2. `find ./ AliESDs.root`
 3. `find ./ AliESDs.root | wc -l`
 4. `find -x mycollection ./ AliESDs.root`
 5. `find -x mycollection ./ AliESDs.root > /tmp/tutorial.xml`
10. `cp file:/tmp/tutorial.xml ~/xml/`
- > (local sh)
1. `mkdir $HOME/analysis`
 2. `cd $HOME/analysis`
 3. `cp /tmp/tutorial.xml ./`
 4. `> aliensh`
 5. `cp /alice/cern.ch/tutorial/macros/esdAna.C file:.`
 6. `cp /alice/cern.ch/tutorial/macros/esdAna.h file:.`
 7. `cp /alice/cern.ch/tutorial/par/AliESD.par file:.`
 8. `cp /alice/cern.ch/tutorial/macros/MyBatchSelector.C file:.`
 9. `cp /alice/cern.ch/tutorial/alienrootana file:.`
 4. `> aliensh`
 - > `find -l 10 -x mycollection /alice/cern.ch/tutorial/data/ AliESDs.root > tutorial.xml`
 5. `> (local sh)`
 - `./alienrootana`
 - > `root (root> new TBrowser())`
11. `> aliensh`
 - > `cp /alice/cern.ch/tutorial/jdl/tutorial.jdl ~/jdl/`
12. `> aliensh`
 - > `submit ~/jdl/tutorial.jdl`
 - > `ps`
 - > `ps -X`
 - > `ps -jdl <jobid>`
 - > `ps -trace <jobid> all`
 - > if the job run's:
 1. `spy <jobid> workdir`
 2. `spy <jobid> stdout`
 3. `spy <jobid> stderr`
 - > `masterjob <jobid>`
 - 2. `> aliensh`
 - > `cp /alice/cern.ch/tutorial/histomerge.C file:.`
 - > `cp /alice/cern.ch/tutorial/alienroot file:.`
 - > `./alienroot`
 1. `root> .L histomerge.C`
 2. `root> histomerge("/proc/<user>/<jobid>","esdAna.root","mergefile.root");`
 3. `root> new TBrowser();`
 - 🔍 Inspect the ROOT file