

EXPERT ROOT - Expert_Root - # 69

The Framework

A simulation, reconstruction and analysis framework that is based on the ROOT and the FairRoot systems. The user can create simulated data and/or perform analysis with the same framework. Geant3 and Geant4 transport engines are supported, however the user code that creates simulated data do not depend on a particular monte

carlo engine.

The full documentation is available here: <http://er.jinr.ru/>

Repository viewer: <https://github.com/FairRootGroup/Fair/>

License

ExpertRoot is distributed under the terms of the GNU Lesser General Public Licence version 3 (LGPL) version 3.

About experiment

[H. Geissel et al.](#)
[EXPERT \(EXOTIC PARTICLE EMISSION AND RADIOACTIVITY BY TRACKING\) STUDIES AT THE SUPER-FRS SPECTROMETER](#)
[in VIIth International Symposium on Exotic Nuclei \(EXON-2014\), Kaliningrad, Russia, 8 - 13 Sept. 2014, pp.579-596. World Scientific, Singapore, 2015.](#)

Installation Guide

1. FairSoft Installation

```
mkdir ~fair_install
cd ~fair_install
git clone https://github.com/FairRootGroup/FairSoft.git
cd FairSoft
git checkout BRANCH_NAME
./configure.sh
# 1) gcc (on Linux) 5) Clang (on OSX)
# 2) No Debug Info
# 3) Yes (ROOT6)
# 4) Yes (Install engines)
# 5) Internet (install O4 files from internet)
# 6) No (without python)
# path: ~fair_install/FairSoftInst
```

BRANCH_NAME=may16p1

In case of any missing software check the ~fair_install/FairSoft/DEPENDENCIES* file and follow instructions there.

2. FairRoot Installation

```
# Set the shell variable SIMPATH to the installation directory
export SIMPATH=~fair_install/FairSoftInst

cd ~fair_install
git clone https://github.com/FairRootGroup/FairRoot.git
cd FairRoot
git checkout BRANCH_NAME
mkdir build
cd build
cmake -DCMAKE_INSTALL_PREFIX=~fair_install/FairRootInst ..
make
make install
```

3. ExpertRoot Installation

```
# Set the shell variable FAIRROOTPATH to the FairRoot installation directory
export FAIRROOTPATH=~/.fair_install/FairRootmat

mkdir ~/.expertroot
cd ~/.expertroot
git clone https://github.com/ExpertRootGroup/er .
git checkout BRANCH_NAME
mkdir build
cd build
cmake ../-DUSE_DIFFERENT_COMPILER=TRUE
make
```

4. ExpertRoot Initialize:

```
./~/.expertroot/build/config.sh
```

User Guide

Updating

```
cd ~/.expertroot
git pull
cd ~/.expertroot/build
make
```