

组会报告

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BOSS Environment Setting

- For environment setting

```
$ cp -rf /afs/ihep.ac.cn/bes3/offline/Boss/cmthome/cmthome-6.6.4 ./
```

- Create a directory as workarea

```
$ mkdir workarea
```

- Connect with CMT

```
$ cd cmthome-6.6.4
```

```
$ source setupCMT.csh
```

- Modify the requirements file

```
$ vim requirements
```

Uncomment the sentences:

```
#set WorkArea "/ihepbatch/bes/maqm/workarea"
```

```
#path_remove CMTPATH "${WorkArea}"
```

```
#path_prepend CMTPATH "${WorkArea}"
```

And modify "/ihepbatch/bes/maqm/workarea " into "/afs/ihep.ac.cn/users/m/maxn/workarea"

Run A Simple Example

- Copy TestRelease to local workarea

```
$ cp -rf $BesArea/TestRelease ./
```

- Config and compile

```
$ cd ~/workarea/Testrelease/*/cmt
```

```
$ cmt broadcast cmt config
```

```
$ cmt broadcast gmake
```

```
$ source setup.csh
```

```
$ cd ../run
```

- Run a job

```
$ boss.exe jobOptions_sim.txt (for simulation )
```

```
$ boss.exe jobOptions_rec.txt (for reconstruction )
```

```
$ boss.exe jobOptions_ana_rhopi.txt (for analysis)
```

Run The Rhopi Example

- Physics Processes

$$J / \Psi \rightarrow \rho \pi^0, \rho \rightarrow \pi^+ \pi^-, \pi^0 \rightarrow \gamma \gamma$$

- Copy the RhopiAlg package

```
$ cd ~/workarea
```

```
$ cp -rf $BesArea/Analysis/Physics/RhopiAlg/ ./
```

- Compile

```
$ cd RhopiAlg/*/cmt
```

```
$ gmake
```

```
$ source setup.csh
```

- Run(test)

```
$ cd ~/workarea/TestRelease/*/run
```

```
$ boss.exe jobOption_sim.txt
```

(simulation, rhopi.dec required, and rhopi.rtraw produced)

```
$ boss.exe jobOption_rec.txt
```

(reconstruction, rhopi.rtraw required, and rhopi.dst produced)

```
$ boss.exe jobOption_ana_rhopi.txt
```

(analysis, rhopi.dst required, and rhopi_ana.root produced)

Run The Rhopi Example With large Event Number

- If the test run succeeds, what to do next is to modify the
jobOption_sim.txt jobOption_rec.txt jobOption_ana_rhopi.txt

modify BesRndmGenSvc.RndmSeed to be 10000, and
ApplicationMgr.EvtMax to be 5000;

- Run the example

first, do

```
$ boss -q jobOption_sim.txt
```

after it's done, do

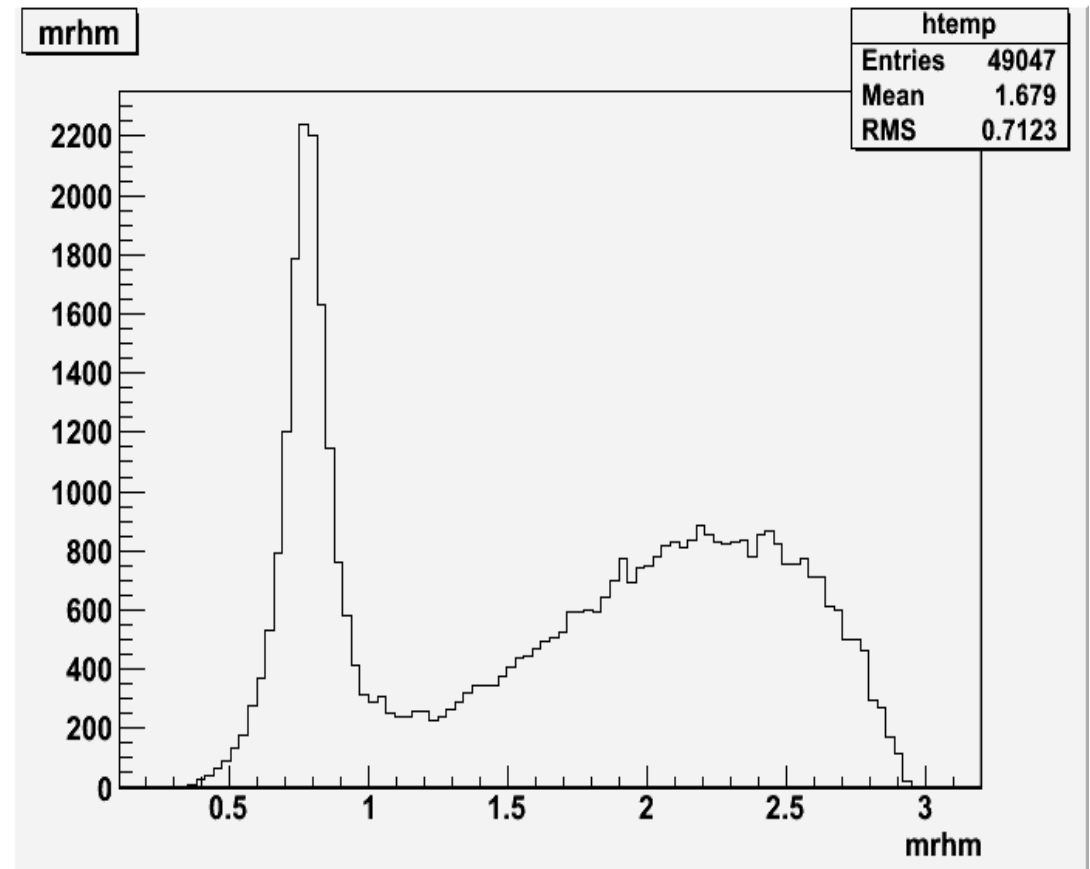
```
$ boss -q jobOption_rec.txt
```

after it's done, do

```
$ boss -q jobOption_rec.txt
```

Analysis

- When the analysis algorithm is done, ana_rhopi.root is produced, then do
- `$ root -l ana_rhopi.root`
- Then analysis using ROOT
- `root[] Tbrowser a`
- `root[] fit5c->Draw("mrhm")`



What I am doing

- Modify Rhopi.cxx to analysis the process
- Main parameters to be concentrated on:
nGood, nGam, Vertexfit, KinematicFit, ...
- Modify the decay card
- Run the process and analyze it

```
1 #J/psi-> omega pi+ pi+ pi- pi-
2 #           |-> pi- pi+ pi0
3 #           |-> gamma gamma
4 #
5 Decay J/psi
6     1.0000 omega pi+ pi+ pi- pi- PHSP;
7 Enddecay
8 #
9 Decay omega
10    1.000 pi- pi+ pi0 OMEGA_DALITZ;
11 Enddecay
12 #
13 Decay pi0
14    1.000 gamma gamma PHSP;
15 Enddecay
16 #
17 End
```

Thank you