Integration of the Therminator model with the MpdRoot environment

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Installing the main soft

- FairSoft
- FairRoot
- MpdRoot

What is Therminator?

- **THERM**al heavy-**I**o**N** gener**ATOR** - is a model of Monte Carlo event generator for simulating collisions of heavy particles.

Simulations (1 and 2 events)

```
Macro finished successfully.
Output file is mpddst.root
Parameter file is /home/robert/praktyki/mpdroot/macro/mpd/evetest.root
Real time 1871.41 s, CPU time 1870.63 s
```

```
Macro finished successfully.
Output file is mpddst.root
Parameter file is /home/robert/praktyki/mpdroot/macro/mpd/evetest.root
Real time 19585.1 s, CPU time 19514.3 s
```

Small changes

Added in therminator catalog:

- Two programs .C
- Function in runTherm.C

Cluster

```
[mikos@ncx104 therminator]$ root -l
*** DISPLAY not set, setting it to gril82.jinr.ru:0.0
root [0] .L runTherm.C
root [1] gen=new Generator
(Generator *) 0x2589870
root [2] gen->printInputParameters()
NumberOfEvents = 1
Randomize = 1
TableType = SHARE
InputDirSHARE = ./share
EventOutputFile = event.out
FreezeOutModel = SingleFreezeOut
BWVt = 0.55
BWA = -0.5
Tau = 9.74
RhoMax = 7.74
Temperature = 0.1501
MiuI = -0.0079697
MiuS = 0.0699562
MiuB = 0.3032
AlphaRange = 8
RapidityRange = 4
NumberOfIntegrateSamples = 1000000
root [3] gen->generateInputFile()
root [4] gen->generateEvents()
Particle data tables from SHARE
Reading from |./share/particles.data|
381 particle types read.
Hash for these parameters is: 139294944150-8069963032800400
Reading Max Integrand values from fintegrandmax_139294944150-8069963032800400.txt
Reading Multiplicities from fmultiplicity_139294944150-8069963032800400.txt
Using default multiplicty distribution: Poissonian
Reading Multiplicities from fmultiplicity_139294944150-8069963032800400.txt
Event: 1
root [5]
```

Future development:

- Cluster
- Optimization of MpdTherminatorGenerator source/header file

Thank you for your attention