Manual for BINGER project

A Data Analysis Code Project for the External Target Facility, HIRFL-CSR, IMP, Lanzhou, China

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Outline

- Online Access and Install
- Usage
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Online Access and Install

- Online access from github: `https://github.com/asiarabbit/BINGER.git`

  ```
  # git clone -b vme https://github.com/asiarabbit/BINGER.git
  ```

- Directory description
  - `build: stores makefile, executables, rootfiles and analysis results;`
  - `data: the default raw data file foldes`
  - `config: configuration files as the running parameters of the program`
  - `...`
- Installation: run `cmake ..; make pre -j8` in the `build` folder.

Usage

- Example 0: analyze datafile 20180708_2052.dat only for detector simple daq statistics

```
# ./pre 20180708_2052.dat
```

- Example 1: analyze datafile 20180708_2052.dat implementing 2-D particle tracking

```
# ./pre 20180708_2052.dat -d
```

or

```
# ./pre -d 20180708_2052.dat
```

- Example 2: analyze datafile 20180708_2052.dat implementing 3-D particle tracking

```
# ./pre 20180708_2052.dat -d3
```

or

```
# ./pre -d3 20180708_2052.dat
```

Usage

- Example 3: analyze datafile 20180708_2052.dat and 20180708.021 implementing particle i dentification using 2-D tracking

```
   # ./pre 20180708_2052.dat 20180708.021 -d5
or
   # ./pre 20180708.021 20180708_2052.dat -d5
or
   # ./pre 20180708.021 -d5 20180708_2052.dat
or
   # ./pre -d5 20180708.021 20180708_2052.dat
```

TIPS: The operands (`20180708.021 20180708_2052.dat`) and opitons (`-d5`) can be in any order.

Usage

- Example 4: analyze datafile 20180708_2052.dat and 20180708.021 implementing particl e identification using 3-D tracking, from event 17 to event 145603

```
# ./pre 20180708_2052.dat 20180708.021 -d6 -i17 -f145603
```

- * You can always look up the usage by calling

```
# ./pre -h
```