Report on Large Scale DH Test

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Overview

1. Large Scale data DH test
2. Summary and next plan

The large Data Handling test

Currect status for Belle data

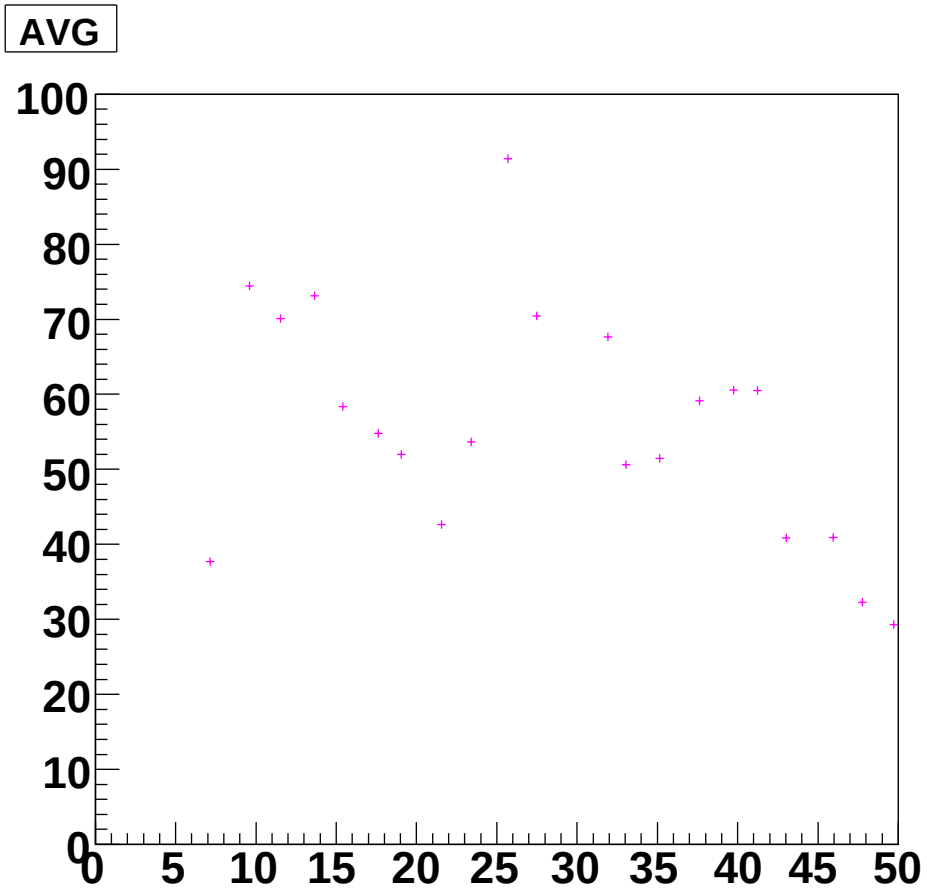
- Extraction:
  Extract meta-data from the Belle Data.
  processing (exp07 $\sim$ exp49)
  $\rightarrow$ done by 4.18
- Generating meta-data: by Dr. S.I Ahn
  We generated the meta data from exp07 to exp49.
- We finished these works.

- Relication:
  - Master(KISTI) : 150.183.246.196
  - Slave(Melbourne) : 192.231.127.47
  - The slaves are updating automatically.
- After the replication, we search the interesting files from Melbourne and KISTI system.
  We get same result between KISTI and Melbourne.

Meta-system test for Large Scale data.

1. Size : 31MB, 21 experiments(exp07-exp49), on_resonance, stream 0,1,2
2. extraction time : 1.8min - 18min/file
3. generating time : 400files/sec
4. Performance :
   UI : hep2.kisti.re.kr
   Meta system : Melbourne slave(for global network environment)
   Prototype : belle_amga_access
   query type : long query(searching all run number)

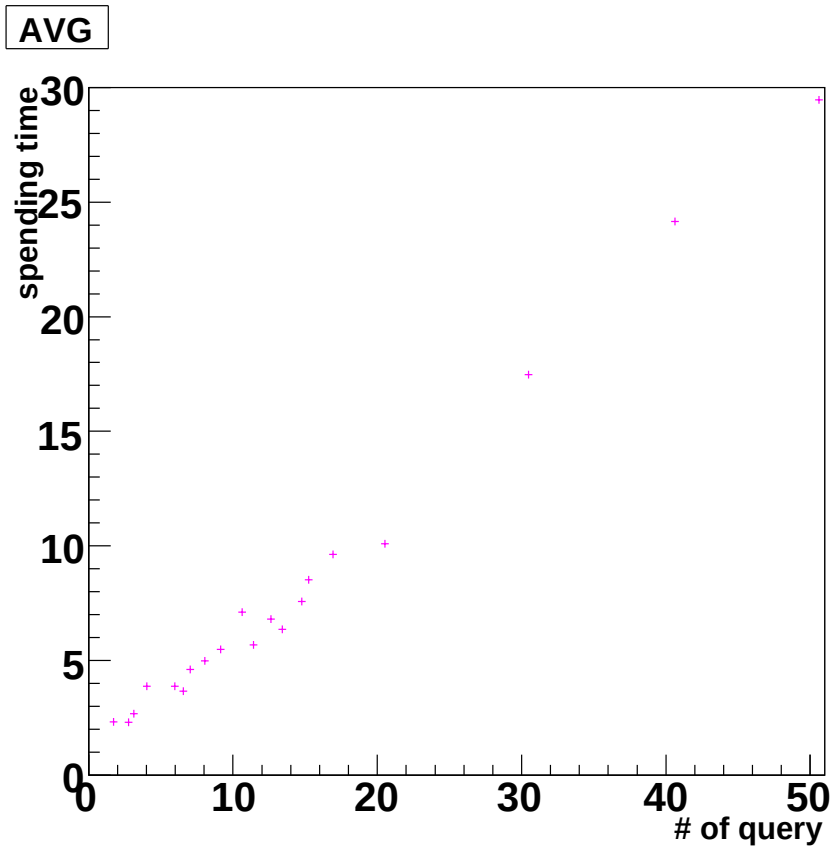
Performance: searching time for full data of each experiment.



- Total spending time (sequential searching for all meta-data): 1161 sec
- Average spending time: 55 sec

Performance: a table and multi-queries.

- We perform to search the interesting files with a table of meta-system and changing the number of queries.



- the linearity of seacrhing is stable until 50 queries running in remote network system.

Summary and Next plan

1. The extraction and generating meta-data will finish in this week (exp07-exp49).
2. We are testing the meta-system.
3. multi-query test :
   1^{st} : Searching with a table and multi-queries:done
   2^{nd} : Searching with random table and multi-queries: doing.
   We will perform to search the files with short query.
   We will perform to search the files with local network system.
4. We are generating the random meta-data for scalablity.: doing