Secondary Tables

(legacy)
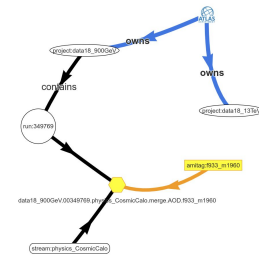
➢ Status
➢ TOverlap, TStat, DOverlap
➢ Web Service

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Status (1)

- ➢ Emil has copied original secondary tables to analytix (thanks)
  - ○ `/user/atlevind/TOverlap`: trigger overlaps
  - ○ `/user/atlevind/TStat`: trigger statistics
  - ○ `/user/atlevind/DOverlap`: dataset overlaps
- ➢ Accessible:
  - ○ Directly from HDFS (as map files)
  - ○ Via CLI in CERN as
    `curl 'http://aiatlas073.cern.ch/Atlascope.ReadHDFS.jsp'`
  - ○ Via WS everywhere as
    `https://atlas-event-index.cern.ch/Atlascope/ReadHDFS.jsp`
- ➢ Can be used till new tables created (or even to fill the initial data in the new structure)
  - ○ A lot of CPU needed to create especially TOverlaps

TOverlap

events sampling method - mostly @S1000

number of all events - exact   *dataset name (re-arranged)*

```
$ curl 'http://aiatlas073.cern.ch/Atlascope/ReadHDFS.jsp?fn=/user/atlevind/TOverlap/EI18.1/data18_hi.physics_UPC.merge.AOD.f1028_m2055.003670238@S1000'
EVT:      8296000
HLT_beamspot_activeTE_trkfast_peb:        124440
HLT_beamspot_activeTE_trkfast_peb_L1J12_VTE200: 182512

…
OVL:HLT_beamspot_activeTE_trkfast_peb:HLT_g28_etcut_ion:        8296
OVL:HLT_beamspot_activeTE_trkfast_peb:HLT_g30_loose_ion:        8296

…
```

number of trigger events - like in TStat, but may be approximative

number of trigger overlap events - may be approximative

very expensive to re-create

TStat

selection of triggers (= arguments of creating `ti` *command) - mostly @00*

number of all events - exact

dataset name (re-arranged)

```
$ curl 'http://aiatlas073.cern.ch/Atlascope/ReadHDFS.jsp?fn=/user/atlevind/TStat/EI18.1/data18_hi.physics_UPC.merge.AOD.f1028_m2055.00367023@00'
EVT:        8296584.0
HLT_2e20_loose_ion:      21.0
HLT_2mu14:       35.0
…
```

number of trigger events - exact

easy and fast to re-create

DOverlap

number of overlap events (intersection) - exact

```
$ curl 'http://aiatlas073.cern.ch/Atlascope/ReadHDFS.jsp?fn=/user/atlevind/DOverlap/EI18.1/00348835'
...
data18_13TeV.00348835.physics_Main.merge.AOD.f937_m1972-data18_13TeV.00348835.physics_Main.merge.AOD.f921_m1947:        1063,100.00,100.00
data18_13TeV.00348835.physics_Main.merge.AOD.f921_m1947-data18_13TeV.00348835.express_express.merge.AOD.f921_m1947:      262,24.65,53.36
data18_13TeV.00348835.physics_Late.merge.AOD.f921_m1947-data18_13TeV.00348835.physics_Main.merge.AOD.f921_m1947:        12,54.55,1.13
data18_13TeV.00348835.express_express.merge.AOD.f921_m1947-data18_13TeV.00348835.physics_Main.merge.AOD.f921_m1947:      262,53.36,24.65
data18_13TeV.00348835.physics_CosmicCalo.merge.AOD.f921_m1947-none:        13549,99.96,100.00
...
```

datasets parts in overlap [%] - rounded, but can be fixed from Phoenix database

quite easy to re-create

Web Service

➢ **`&view=html`** to get view formatted for browser ([example](#))
➢ **`&view=toverlap`** to get correlogram and Venn diagrams for TOverlap
➢ **`&view=doverlap`** to get correlogram and Venn diagrams for DOverlap ([example](#))
➢ **`&view=doverlap&fix=true`** to get correlogram and Venn diagrams for DOverlap
  ○ and to correct dataset events from Phoenix (may be slow)
➢ A bit awkward for big tables (especially TOverlaps)
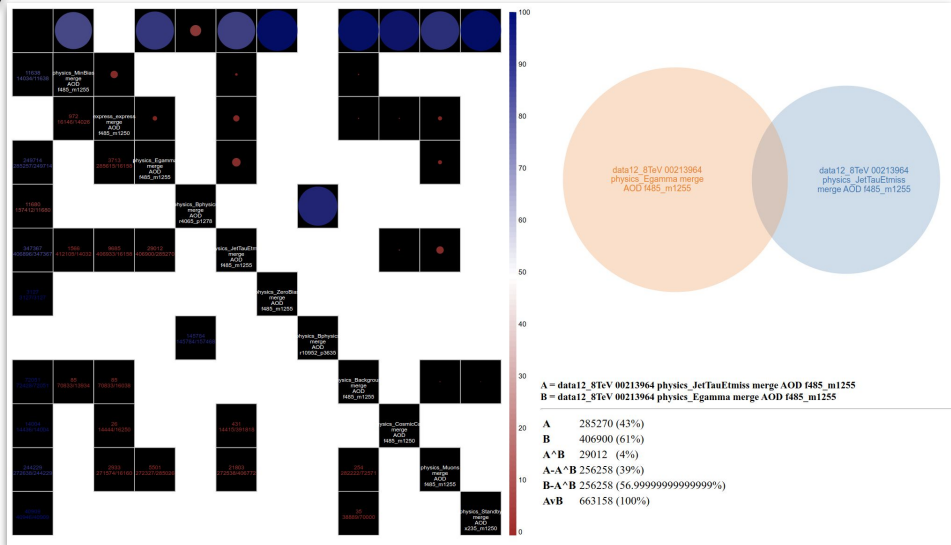
Status (2)

- ➢ Copied secondary tables are not perfect
  - ○ They depend on information from Catalog, which doesn't exist any more
    - ■ But that dependency may be partly replaced with dependency on new database
  - ○ They are just a snapshot created when the system has been switched off
    - ■ That could be fixed by the system, which doesn't exist yet
- ➢ They can be used till new system is in place
- ➢ Their content can be copied into new system as its initial content
- ➢ Maybe the logic (structure) can be re-used
  - ○ The secondary data consist of small tables, so files in a filesystem may be a reasonable implementation