Update on ProtoDUNE DB

ProtoDUNE HD
Slow Controls DB Status and Plans

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IOWA

1. Sending the SCDB HV from CERN NP04 to UConDB

- I start sending the Slow-Control High Voltage DB from NP04 to dunegpvm. I am using the commands below:

- *To get the last runs info (i.e. last 20 runs):* curl -u fooUsr:barPass -X GET http://dunedaq-microservices.cern.ch:5005/runregistry/getRunMetaLast/20 -o res.json

    -> Here, res.json includes all information regarding last 20 runs.

- *To get the information for specific run number:* curl -u fooUsr:barPass -X GET http://dunedaq-microservices.cern.ch:5005/runregistry/getRunMeta/<run number> (run number from res.json)

- *To get the DB from NP04 and then convert json to csv:* curl <CERN LINK for DB>/range/<start time>/<end time>/<sensor-id> | jq -r 'to_entries[] | [.key, .value|tostring] | join(",")' > <output file name.csv>

- *Put the SCDB HV to dunegpvm UConDB:* curl -T <output file name.csv> --digest -u 'username:password' -X PUT https://dbdata0vm.fnal.gov:9443/protodune_ucon_prod/app/data/test/SCDB_HV/key=run number (I am using the username:password that experts shared with me)

(curl <CERN LINK for DB>/range/<start time>/<end time>/<sensor-id>: I know all the info what I need here)

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2. Sending the SCDB HV from CERN NP04 to UConDB

- I am getting the sensor-id info from the google-doc, the link is below:

  Data from ProtoDUNE Slow Controls - Offline Requirements

- Time ranges are coming from res.json.

- I have just started sending the DB to UConDB with June. And will continue for each months.

- I created new object and folder in UConDB: **ucondb ls test SCDB_HV**

```
/exp/dune/app/users/nbostan/ucondb
[Apptainer> ucondb ls test SCDB_HV
id         key   Tr (UTC)             Tv              Size
--------   ----- -------------------  --------------- --------
377        26670 2024-06-10 11:04:29         0.000    16390
376        26669 2024-06-10 11:03:40         0.000    19156
375        26668 2024-06-10 11:02:47         0.000     3370
```

- Here, key corresponds to the run numbers. Using the info below from res.json, I am able to send the data to UConDB like I show above:

```
,"Mon, 03 Jun 2024 15:42:03 GMT","np04_hd","PROD","fddaq-v4.4.1-a9-1"],[26619,"Mon, 03 Jun 2024 15:15:31 GMT","Mon, 03 Jun 2024 15:17:47 GMT","np04_hd","PROD","fddaq-v4.4.1-
a9-1"],[26618,"Mon, 03 Jun 2024 15:02:25 GMT","Mon, 03 Jun 2024 15:04:35 GMT","np04_hd","PROD","fddaq-v4.4.1-a9-1"],[26617,"Mon, 03 Jun 2024 14:59:19 GMT","Mon, 03 Jun 2024
15:01:32 GMT","np04_hd","PROD","fddaq-v4.4.1-a9-1"],[26616,"Mon, 03 Jun 2024 14:56:17 GMT","Mon, 03 Jun 2024 14:58:28 GMT","np04_hd","PROD","fddaq-v4.4.1-a9-1"],[26615,"Mon,
 03 Jun 2024 14:52:21 GMT","Mon, 03 Jun 2024 14:54:59 GMT","np04_hd","PROD","fddaq-v4.4.1-a9-1"],[26614,"Mon, 03 Jun 2024 14:48:26 GMT","Mon, 03 Jun 2024 14:51:04 GMT","np04
_hd","PROD","fddaq-v4.4.1-a9-1"]]]
[nbostan@lxplus948 slowrest]$ pwd
/afs/cern.ch/user/n/nbostan/pdune2/slowrest
```

- The end time for some run numbers seems "null", I cannot send this run number to UConDB, I skip those.

```
[nbostan@lxplus948 slowrest]$ curl -u fooUsr:barPass -X GET http://dunedaq-microservices.cern.ch:5005/runregistry/getRunMeta/26578
[["RUN_NUMBER","START_TIME","STOP_TIME","DETECTOR_ID","RUN_TYPE","SOFTWARE_VERSION"],[[26578,"Sat, 01 Jun 2024 16:50:06 GMT",null,"np04
_hd","PROD","fddaq-v4.4.1-a9-1"]]]
```

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3. Conclusion

- As far as I understand, the procedure to send Slow-Control HV DB to UConDB is different than sending DAQ DB to UConDB. Sending DAQ DB to UConDB only needs run number ranges.

- For Slow-Control HV DB sending to UConDB is needed the specific time ranges start time, end time, also specific sensor ids for High Voltage what I am getting from google-doc link.

- We still need granularity from offline users for the SCDB.

- **Question:** Ana Paula mentioned the first step to get the data for each specific run number for the specific sensor-id, and once everything is working correctly, we should merge my code with the cron jobs that Ana Paula has set up. Will this be the procedure in the future?

- **Question:** What I am doing currently to receive and put the data seems makes sense? I also created a script to do each steps what I explained in the previous slides.

- Last thing, there is a plan that one undergrad student from U of Iowa will help me for this task near future. One more help would be great.

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