

Session « Service Tasks » Février 2023

Summary

- Introduction (5')
 - Definition
 - Inventory of existing contributions
- Few examples (15')
 - CU (Jean)
 - Data Processing (Valentin P.)
 - Positioning (Lilian)
- Discussions : (40')
 - Construction/Integration/Deployment (Nick/Miles)
 - ORCA Operation (Alex E./Jürgen)
 - Calibration (Alex C./Lilian/Vincent)
 - Software/Simulations/DPDQ (Valentin P./Damien)
 - Online (Damien)

Service Tasks ?

- Service Task : «A (temporary) work, needed by the experiment, that does not belong to the worker's job list ! »
- Physicists : ~~Physics, Models, Data analysis, publications, communications, conveners~~
- Engineers : ~~Design, Production, Maintenance, Deployment~~
- Construction, tests, calibration, software, computing...
- KM3NeT Service Task Proposals :
 - Soft.&Comp. Tasks : service and developpement. Mostly software engineer and HPC skills
 - Test tasks : mostly to be done at italian sites
- Service Tasks in France:
 - Too large ? Not enough ?
 - Coherent/Strategic Tasks ?
 - ORCA versus ARCA ?
 - Detector upgrades ?
 - List of priorities ?

Construction/Integration/Deployment

DOM integration at Nantes and Strasbourg, BM integration at Montpellier, DOM on VEOC at Caen, DU integration at Marseille, DU deployment at Toulon, CU development at Paris, ORCA Operation at Toulon...

- DOM integration : Lilian, Richard
- DOM integration on VEOC : LPC physicists
- DU integration on LOM : Alex, Damien, Vincent, Mathieu, Luc, Godefroy

- DOM test software : Valentin P.

- LQS : Lilian, Marc

- ORCA sea operation offshore : Vincent, Damien, Paschal, Lilian
- ORCA sea operation onshore : Alex, Jürgen, Mathieu, Chiara, Luc, Godefroy, Sébastien

- Reduce the physicist contributions to this topic ? Lack of tech./engineer manpower ?

Calibration

Time calibration, gain/threshold calibration, (absolute) position calibration...

- Dark Room calibration : Alexander + Chiara
- Absolute positioning with acoustic (KM3Beam with iXblue) : Luc, Jürgen, Vincent, Alexander
- Acoustic positioning ORCA : Vincent, Alexander
- CU simulation, R&D laser, data analysis : Alexandre, Jean, Bruni
- Threshold tuning / bad channel monitoring : Alexandre
- Dynamical positioning : Lilian
- Orientation calibration : Valentin P., Félix, Valentin
- Time calibration with muons : Louis
- Moon+Sun shadow : Luc, Jürgen

Data Processing / Data quality

Software tools, code development, code/generator maintenance, simulation chain, data processing, data quality, monitoring tools...

- DP/DQ software : Valentin P.
- DP/DQ ORCA10 : Isabel, Santiago
- ORCA Monte Carlo and data quality : Chiara, Luc, Sébastien, Godefroy

- Enough manpower on ORCA DP/DQ ?
- Astro. people on ARCA, Oscil. people on ORCA ?

ORCA operation

Maintenance, upgrade, detector operation, DAQ, monitoring...

- ORCA Shore station maintenance : Alexander, Jürgen
- ORCA Operation : Alexander, Jürgen

- Enough manpower to operate ORCA ? Enough manpower to debug the DAQ, to maintain/upgrade the monitoring tools ?

Online multi-messenger

ORCA online data processing (reco.+class.), real time monitoring, MM dispatcher...

- Multi-messenger online shifts : Damien, Sébastien, Godefroy, Valentin ?
- Online software and infrastructure : Damien, Sébastien, Godefroy

- Enough manpower to develop the Online pipelines ?