Planning Workshop Preparation

DAQ CT, 22.05.06

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DEEP UNDERGROUND NEUTRINO EXPER



Science and Technology **Facilities Council**



Agenda (semi-final)

DAQ Planning Workshop

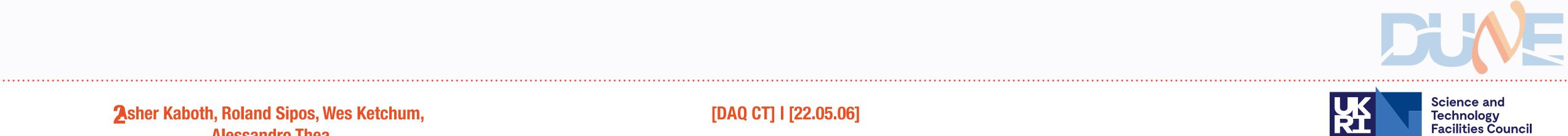
Week of: May 13

	5/13 MONDAY	5/14 TUESDAY	5/15 WEDNESDAY	5/16 THURSDAY	5/17 FRIDAY
7:00 AM		NP04	NP02 Other	Server PRR	
7:30 AM		NP02 Scene Setting and OKS Review Summary	NP02 Other	Server PRR	
8:00 AM		v5/0KS	Critical Path	Server PRR	
8:30 AM		v5/0KS	Critical Path	Server PRR	
9:00 AM		v5/0KS	Critical Path		
9:30 AM		v5/0KS	Critical Path		

• Apologies for the early start

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Set the starting date in cell C2. Rows 3 and 4 will automatically





Indico & Zoom

Indico pages

- May 14: <u>https://indico.fnal.gov/event/64574/</u>
- May 15: <u>https://indico.fnal.gov/event/64575/</u>
- May 16: <u>https://indico.fnal.gov/event/64576/</u>
 - Very tempted to collapse them into a single event if there is time

Zoom

- Booked a physical room at CERN for people on site
- Zoom links here:
 - https://indico.cern.ch/event/1413044/
- Will be added to the FNAL indico page(s)





Inputs for discussions

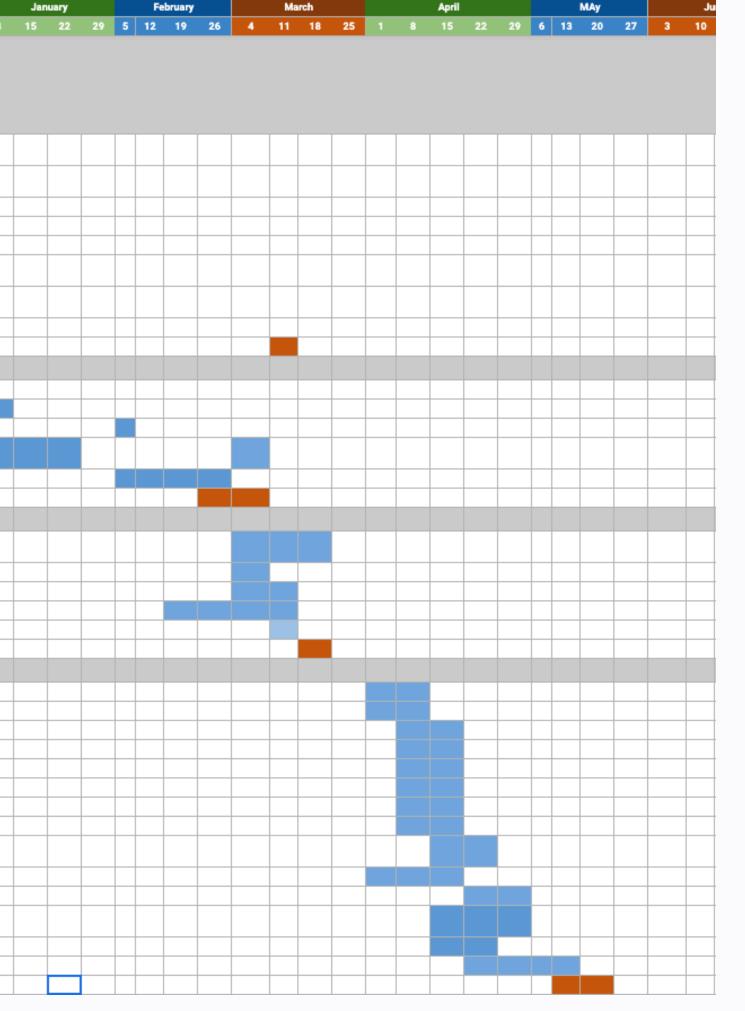
PCT OF TASK WBS NUMBER TASK TITLE WHO? COMPLETE Build and code generation tools Schema design Run control integration Schema development for DAQ Modules Introduce OKS schema concept to DAQ module 4.1 Gordon 100% developers Gordon/Giovan 4.2 Prepare schema for readout 95% na/Roland 4.3 20% Prepare schema for timing Diana/Gordon? 4.3.1 20% Prepate schema for HSI Eric? 4.4 Prepare schema for dataflow apps Giovanna/Eric 100% Arthur/Giovann 4.5 95% Prepare schema for trigger apps а update CmakeLists.txt and activate dal 4.6 100% John generation prepare schema for detector modules 4.7 Giovanna/Eric? 0% 4.5.1 Ready for dunedaq-v5.0.0 0% Introduce DAL into appfwk & DAQ Modules 5.1 Prepare instruction to switch DAQ code Gordon,Eric 100% 5.2 100% Basic configuration generation tools Gordon 5.3 Eric/Gordon 100% Switch appfwk / iomanager to using DAL Eric/Giovanna/ 5.4 Switch all core DAQ modules to using DAL 100% Artur 5.5 22 Manual integration and system tests 0% 5.5.1 0% Ready to merge into nightly Validation Establishment of automated integration and 6.1 Eric, Kurt? 5% system tests 6.2 80% Tests with real data input Giovanna 6.3 Better configuration generation tools Eric/Gordon 0% 6.4 Basic validation of dbe for users 10% Alessandro/? 6.5 Configuration area for EHN1 Giovanna/Wes 0% 6.5.1 Ready for dunedaq-v5.0.0 0% 7 Getting ready for production 7.1 CTB schema and code conversion Marco 5% 7.2 detector modules code conversion 0% wibmod Roland sspmodules Ron daphnemodules Marco crtmodudules 2 7.2.1 Complete operational monitoring info for trigger Artur 7.3 Timing session using OKS Diana 0% Completion of configuration area for 7.4 Wes? 0% EHN1/NP02 7.5 Switch to DRUNC Pierre/Gordon 80% 7.6 System testing with pinning 0% Alessandro/Go 7.7 Virtual functions support rdon 7.8 Refined readout schema for dpdk Alessandro 7.9 Release testing Ready for dunedaq-v5.1.0 0% 7.6.1

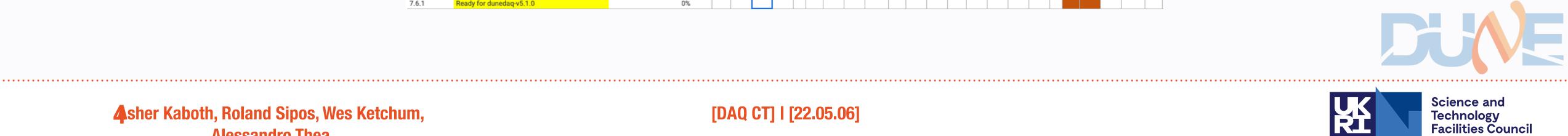
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Science and





Main areas of work

- Operations for NP04 (+NP02)
 - Remaining "missing features" for NP04
 - Remaining integration work in prep of NP02
- Transition to OKS-based configuration (v5.x)
- PRR preparation
 - timing, readout network and dag servers
- Other critical path developments planned for '24





Operations and Integration

• NP04

- Confirm the list of missing features
- Identify who is going to work on them, on what time frames

• NP02

- Confirm what missing for detector integration (assuming v4 as baseline)
- Confirm what is required for transitioning to v5 (see OKS slide)
- Identify who is going to work on them, on what time frames

• Reference person: Wes

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Transition to OKS

- still missing
- Key question that need answering before the workshop
 - Are the subsystems configuration representation sufficient?
 - Are the interfaces to the Run Control sufficient?
 - Are the interfaces to Conditions / Historical databases sufficient? (is there a plan..?)
 - Are the integration tests ready to support the transition?
 - Is the configuration management/generation ready for detector operations?

Detailed understanding of work required to deploy OKS-based system as DAQ-default





Transition to OKS

- Questions/people table
 - Are the configuration representation sufficient (to operate NP02)?
 - Are the interfaces to the Run Control sufficient?
 - CCM Pierre/Alex
 - Are the interfaces to Conditions / Historical databases sufficient? (is there a plan for..?)
 - CCM (?) Alex/Pierre/?
 - Are the integration tests/regression tests ready to support the transition?
 - Release Coordination Kurt
 - Is the configuration management/generation ready for detector operations?
 - Run Coordination Wes
- Reference person: Giovanna

Readout - Roland/Alessandro, Trigger - Artur/Josh, Dataflow - Kurt/Eric, Timing - Stoyan/Diana (?)





PRRS

- Detailed understanding of work required to prepare the PRRs still missing
- 2 main aspects
 - Clarifying the procurement process details across the consortium
- Inputs to the planning workshop
 - Timing : preliminary list of documents, hardware testing status and work plan leading up to the review
 - Stoyan, David
 - Readout Network : preliminary list of documents, testing status and plan leading up to the review
 - Adam + Roland/Alessandro
 - Servers (see next slide)

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DAQ Servers PRR

- Inputs to the Planning Workshop
 - preliminary list of documents, testing status and plan leading up to the review
- Baseline goal for the PRR: review of procurement of all DAQ servers: readout, general infrastructure, dataflow/storage, ccm, dqm, trigger and data filter
- What is going to run on each class of servers? and how do we estimate its footprint to inform technical specifications? What measurements are required?
 - Understanding of readout server requirements fairly advanced: focus on performance measurement work
 - Missing crucial input for other server groups: general infrastructure, dataflow/storage, ccm, dqm, trigger and data filter
 - What do we need to do and how do we get there?
- Reference person: Roland



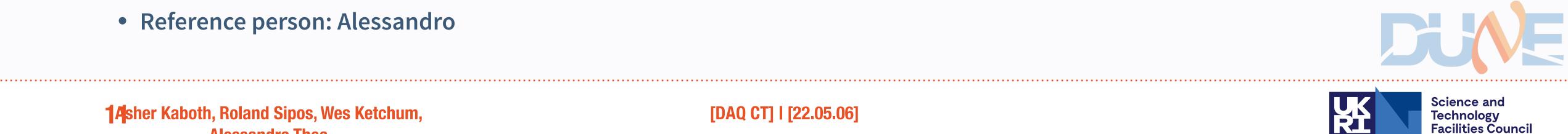


Other critical path items

- K8S rollout at EHN1 : report on status and close out
 - Alex/Pierre/Tiago
- Opmon upgrade
 - Alex/Pierre/Marco
- Network requirements document
 - Adam/Roland: Missing inputs to FNAL networking and what measurements are required
- Application framework review implementation
 - Eric : Workplan update probably requires a dedicates session
- Timing SW/FW completion
 - Stoyan/David: Activities not covered by Timing PRR prep (e.g. timing as service?)
- DAQ deployment model
 - Already covered by general infrastructure servers specs for server PRR.
- Reference person: Alessandro

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Summary

- Preparing the Planning Workshop requires an significant effort from all of us
 - Can we devote the required effort in the next couple of weeks?
- What can we fruitfully discuss in the workshop?
 - And what will we have to postpone?
- What are our priorities?

