

Physics and Computing Interface Document

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Interface Documents to Sim/Reco Groups

- Though part of other consortia, very close relation to the ND and FD Sim/Reco groups
- Circulated drafts of ND Sim/Reco-COMP and FD Sim/Reco-COMP for comments
 - Went to sim/reco leads, phys coords, computing leads
- Consensus emerged in favor of a **single interface document** for the Physics Organization and Computing
 - Involves ND Sim-Reco, FD Sim-Reco, Prototypes, analysis (less to say there right now)
 - Major sections of original docs stay, but simply add subsections for items unique to one or more of the subgroups
- Combined doc out for comments now. Will be available in CERN EDMS, Doc [3128085](#)
- Does not replace or supplant the CRAB (in fact it spells out some CRAB functionality)
- Suggest reviewing it at least annually; can modify it at any time

High-level summary

- Physics responsibilities include:
 - Write detector-specific reconstruction and analysis routines following best practices and standards
 - Enforce code in their purview being in DUNE repositories with appropriate access settings
 - Make requests for large processing and simulation production campaigns through central production resources, and describe required workflows
 - Provide resource estimates for compute, storage, etc. for integrated planning purposes, including needs for HPC, GPU, or special resource types
 - Provide regular feedback on current and planned analysis methods so we can maintain a good match to available resources
- Computing Responsibilities include:
 - Deliver core SW framework
 - Define interface layer between core FW and algorithms/modules
 - Prepare a coding style/best practices guide
 - Enforce code being in DUNE repositories with appropriate access settings
 - Maintain databases and common tools for job submission, workflow mgmt, storage access
 - Provide resources to run batch jobs; run requested production campaigns
 - Guidance on analysis facilities setup (probably multiple types/layers). Suggested computing provide guidance to smaller facility setups, but not full control
 - Maintain central code repo(s)
 - Document best practices for computing operations (e.g. data management tools and methods)