

Alignment Framework



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F2F Tracking Meeting

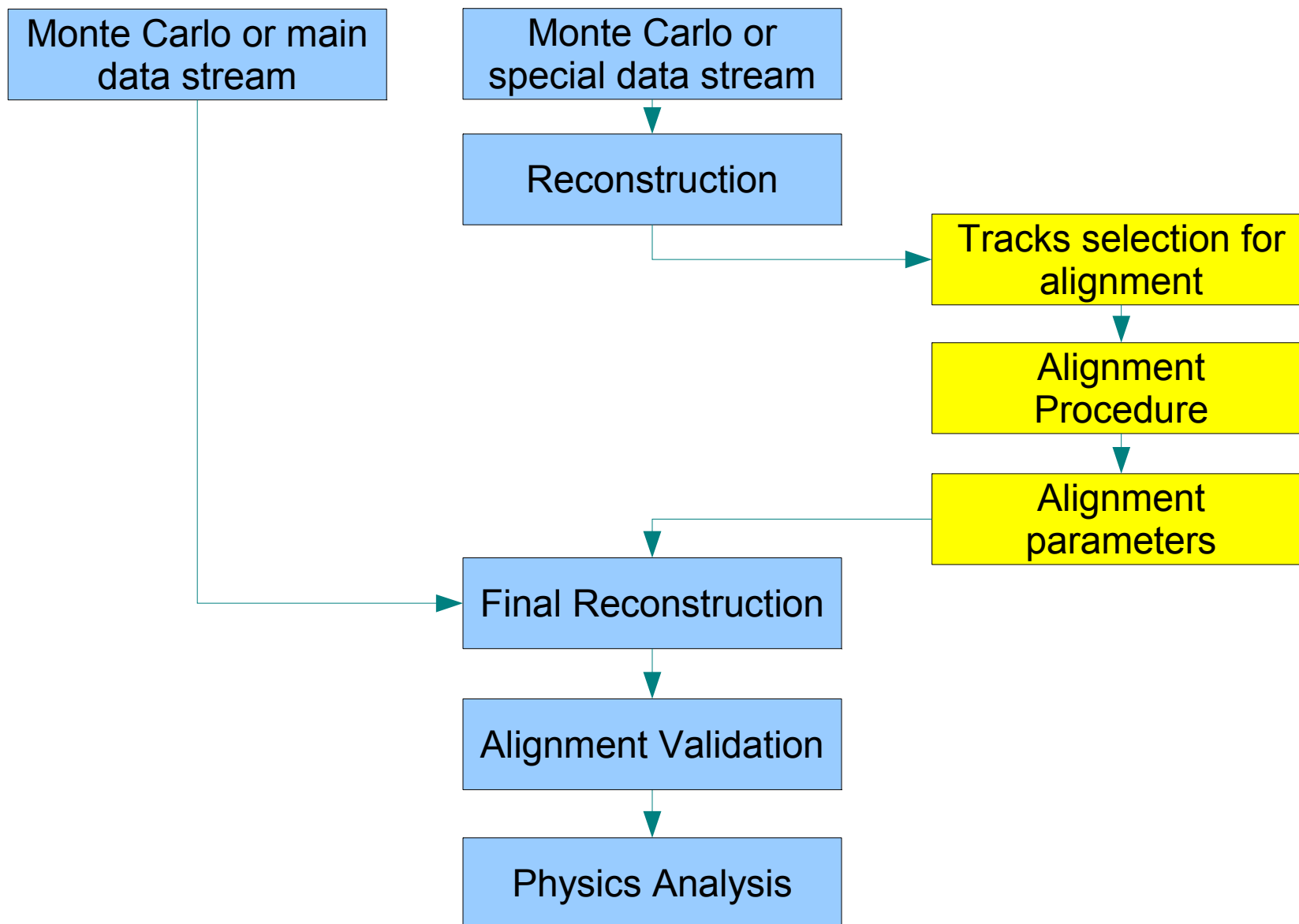
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Introduction

- Alignment framework was discussed during the software/computing workshop at KEK in November
- A scheme of the framework was presented
- **Recommendation** from discussions during the workshop: **include alignment procedure in basf2**
- It does not mean that everything should be part of basf2
- It means that basf2 users **can run the alignment framework** using a **“standard” basf2 steering file**
- Basf2 **modules should provide a way to run external code** and control input and output parameters and data files

Alignment Framework Scheme



- GBL is in basf2 as a part of GENFIT2
- During the development of GBL interface a modified GENFIT2 basf2 module was used to run GBL
- Fast but not optimal solution
- A separate basf2 module is preferable
- The module GBLfitter is created in the [alignment/modules](#) directory
 - Based on the GENFIT2 module
 - Unnecessary parts will be removed
- Goal to [finalize the module by the DESY test beam](#)

- Standalone Fortran90 program
 - Executable pede
 - Text steering file and GBL output binary file as input
 - Output ASCII files with results of pede running
- Millepedell is **included to externals** since **v00-05-00**
- pede can be executed as a system call either from a python steering file or from a basf2 module
- Millepedell module is created in alignment/modules
 - Provide necessary input to pede and run pede
 - Provide results as xml alignment files (use *write_xml* from boost)
- To be **finalized for the DESY test beam**

Plans

> During this meeting

- Discuss with Tadeas parameters of GBLfitter module
- Discuss with Peter xml alignment file conventions to be consistent with GBL and MPII naming scheme

> For the DESY test beam

- Finalize GBLfitter and Millepedell basf2 modules
- Include the modules in basf2

> Properly document this in the code and in the Internal Note