

EDM Toolkit - **PODIO**

F.Gaede, DESY

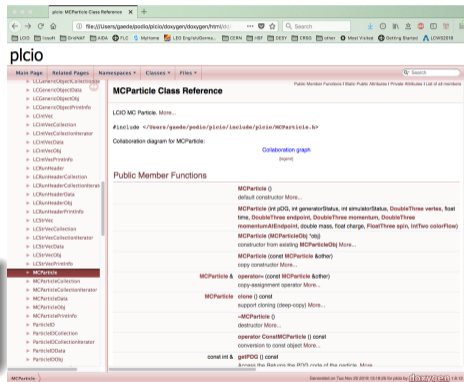
AIDA2020 WP3 Meeting, Nov 23,2018

- Benedikt has left CERN-SFT in September
- currently no one identified to continue work on PODIO at CERN
- try to take over some development at DESY (also low manpower):
 - continue pLCIO implementation
 - try to add a pure **binary POD I/O implementation**
 - at least a prototype as *proof-of-concept*
- agreed w/ Benedikt, FCC and SFT (Graeme) to move repository from
 - <https://github.com/hegner/podio>
 - to <https://github.com/AIDAsoft/podio> (not yet)

- started to implement the LCIO EDM in PODIO: **pLCIO**
- first implementation ~95% complete
- missing feature *vector members* was missing
- implemented in principle but currently not working
- debug in progress. . .

MS 90 achieved

- Application of EDM toolkit to Linear Collider
- need to write *Milestone Report* by end of month



The screenshot displays the 'MCParticle Class Reference' page from the pLCIO documentation. The browser address bar shows the file path: `file:///Users/gaede/podio/podio/gen/html/001/`. The page content includes:

- MCParticle Class Reference**
- Public Member Functions:
 - `MCParticle()` default constructor
 - `MCParticle(int pID, int generatorStatus, int simulatorStatus, DoubleThree vertex, float time, DoubleThree endpoint, DoubleThree momentum, DoubleThree momentumAtEndpoint, double mass, float charge, FloatThree spin, IntTwo colorFlow)`
 - `MCParticle(MCParticleObj *obj)` constructor from existing MCParticleObj
 - `MCParticle(const MCParticle &other)` copy constructor
 - `MCParticle & operator=(const MCParticle &other)` copy-assignment operator
 - `MCParticle clone() const` support cloning (deep-copy)
 - `~MCParticle()` destructor
 - `operator const MCParticle() const` conversion to const object
 - `const int & getPID() const` returns the PDG code of the particle

- GitHub repository + docs
 - <https://github.com/hegner/podio>
 - **to be moved to** <https://github.com/AIDASoft>:
- doxygen page:
 - <https://fccsw.web.cern.ch/fccsw/podio/index.html>
- issue tracker:
 - <https://sft.its.cern.ch/jira/projects/PODIO>
- plcio (EDM for LCIO w/ podio) git repository:
 - <https://stash.desy.de/projects/IL/repos/plcio>
- PODIO Library Design Document:
 - <http://cds.cern.ch/record/2212785>