Status report of the Simulation working group

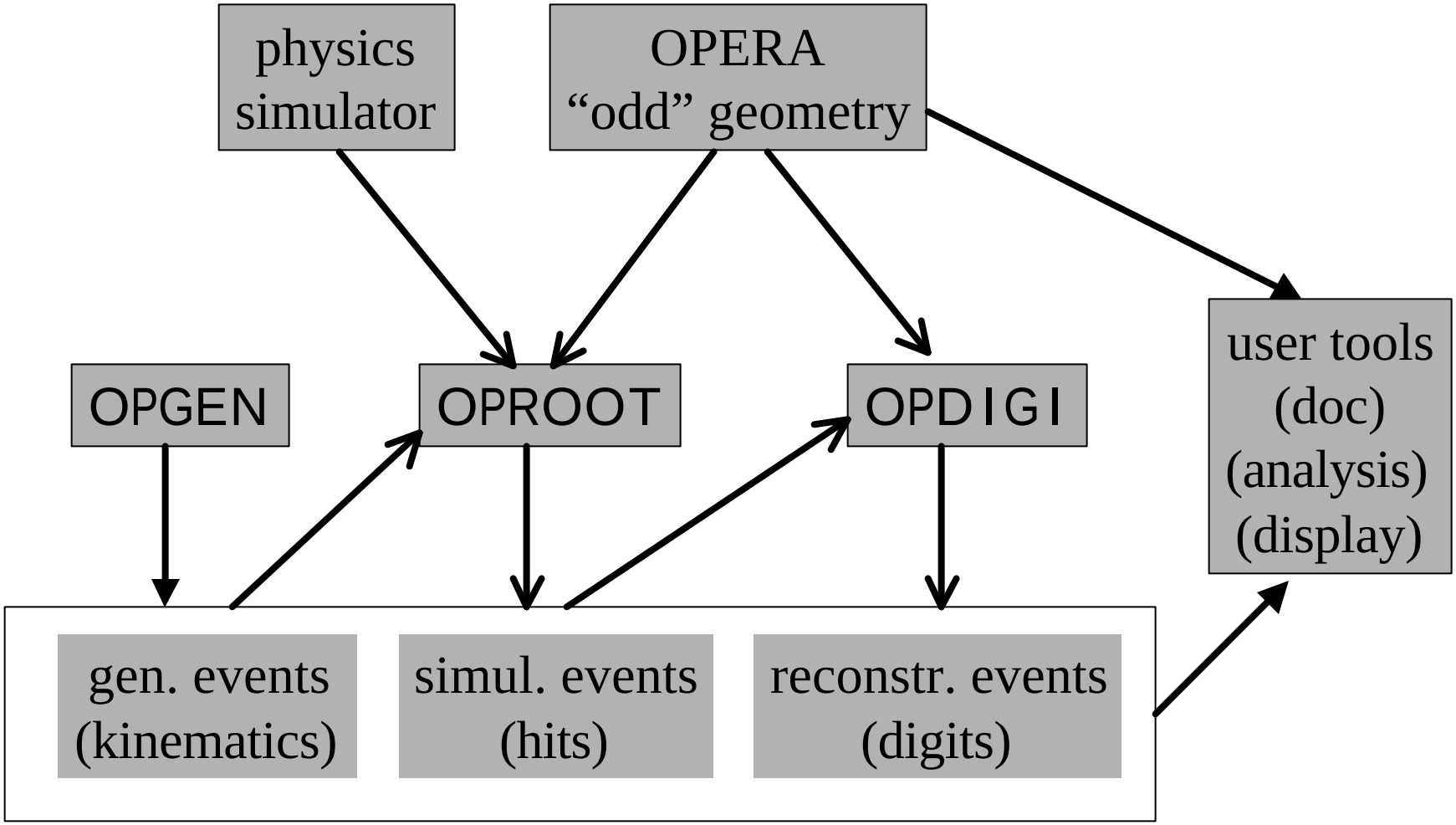
Last meeting: CERN, October 3rd, 2002

minutes from J.Boucrot and slides available
on the File Exchanger, /home/software/meetings

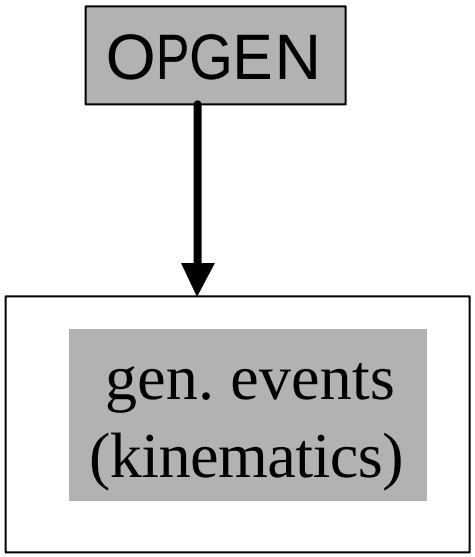
Next meeting: CERN, January 16th, 3003

color code:

- (almost) under control
- work is going on
- well … hum… bof...


physics simulator
OPERA "odd" geometry
user tools (doc) (analysis) (display)
OPGEN
OPROOT
OPDIGI
gen. events (kinematics)
simul. events (hits)
reconstr. events (digits)

The OPGEN package does not exist !



- Contents seems to be ready
  (ν–EG derived from NOMAD by Dario)
  (NABUCCO from Foued)
  (new generator coming ?)

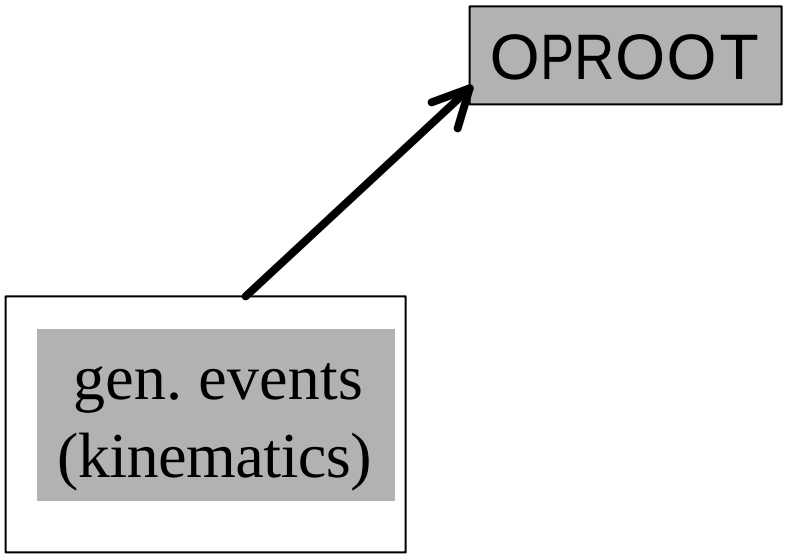
- CMT/CVS packaging has still to be done

- output = simple text format
  (“a la JETSET”)

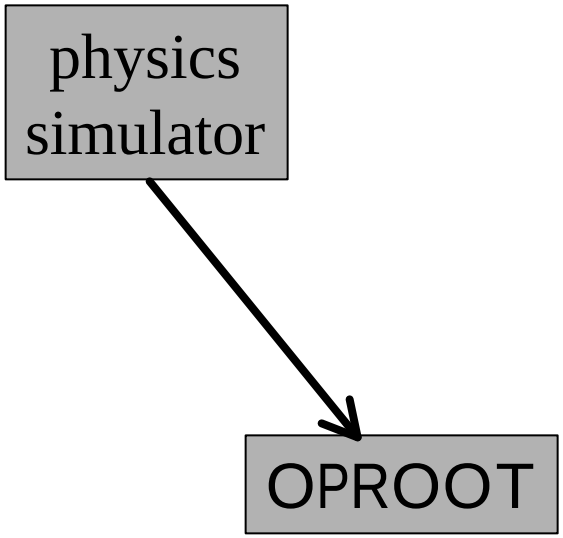
- request to Phys.Coord.: event list and stat.

Transfert of generated events to the simulator:

- done through the OPROOT class GenExtFile (thanks to Igor)



- multiple vertices events now OK (after modif. by Lionel)
- tracking of the tau not done… (a work for brick simulators ?)



GEANT3 interface:

- "perfect" (from AliRoot)

GEANT4 interface:

- approx. OK (from Lionel)
  (still some ALICE dependencies)

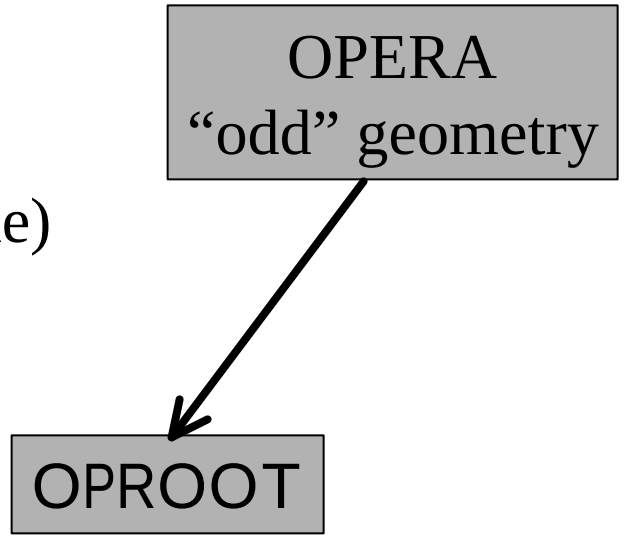
FLUKA/FLUGG interface: (from Luigi and Coll.)

- last standalone FLUGG tested, OK
- CMT/CVS FLUGG is done
- skeleton for TFlugg interface exists

Under control:

- bricks
  (Muriel, Dominique)

- TT scintillators
  (Lionel, Carole)



New or under development:

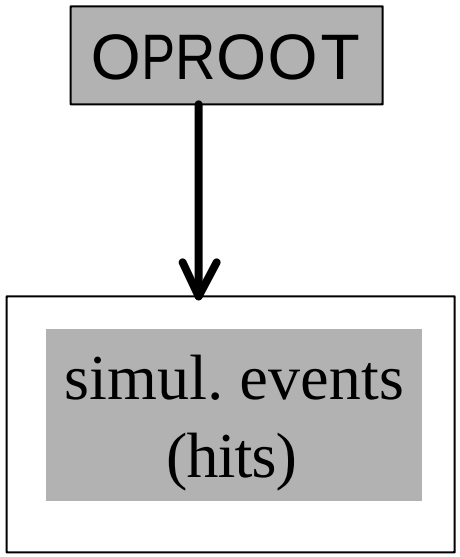
- drift tubes (Valeri)
- RPC, XPC (Stefano)
- magnetic field (ASCII file)

General remarks from Jean-Eric:

- new entry-per-event, proposal for the Tfolder ROOT structure
- should separate OpDetHit class from other OpDet classes

TT scinti:

- one hit per track per bar



Bricks:

- smearing of hit position ?
- background simulation ?
- scanning inefficiency ?
- specific GEANT4 studies from Bern, Neuchatel

RPC, XPC:

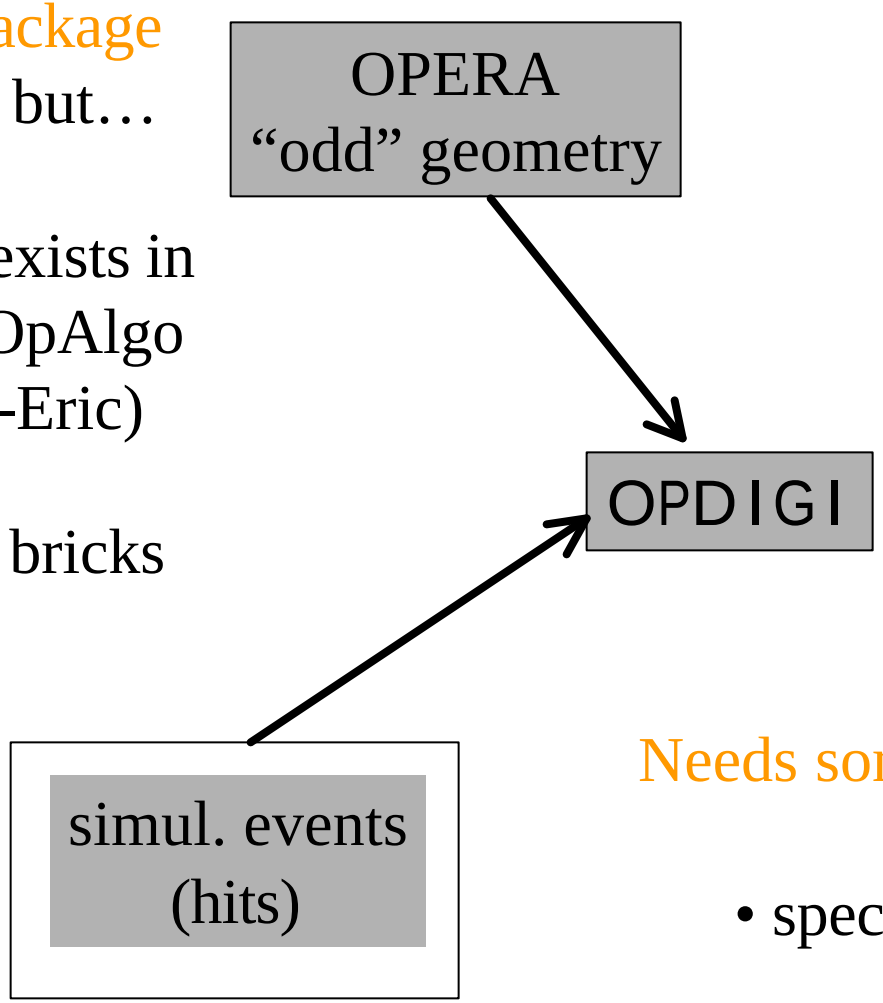
- started
- need to add time info

Drift tubes:

- standalone simulation OK with electr. noise
- first implementation to be done

The OPDIGI package does not exist… but…

- demoOpDigit exists in the context of OpAlgo (thanks to Jean-Eric)
- fully tested for bricks and TT scinti.



Needs some improvements:

- specific package
- cf. OpDetHit Classes
- may need geom. info

Bricks:

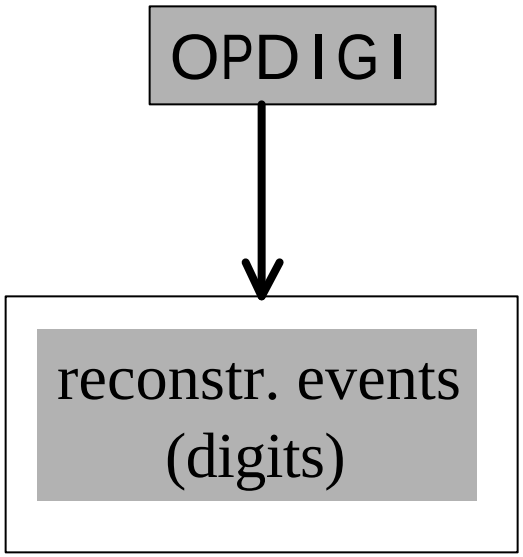
- angular resolution on a microtrack ?

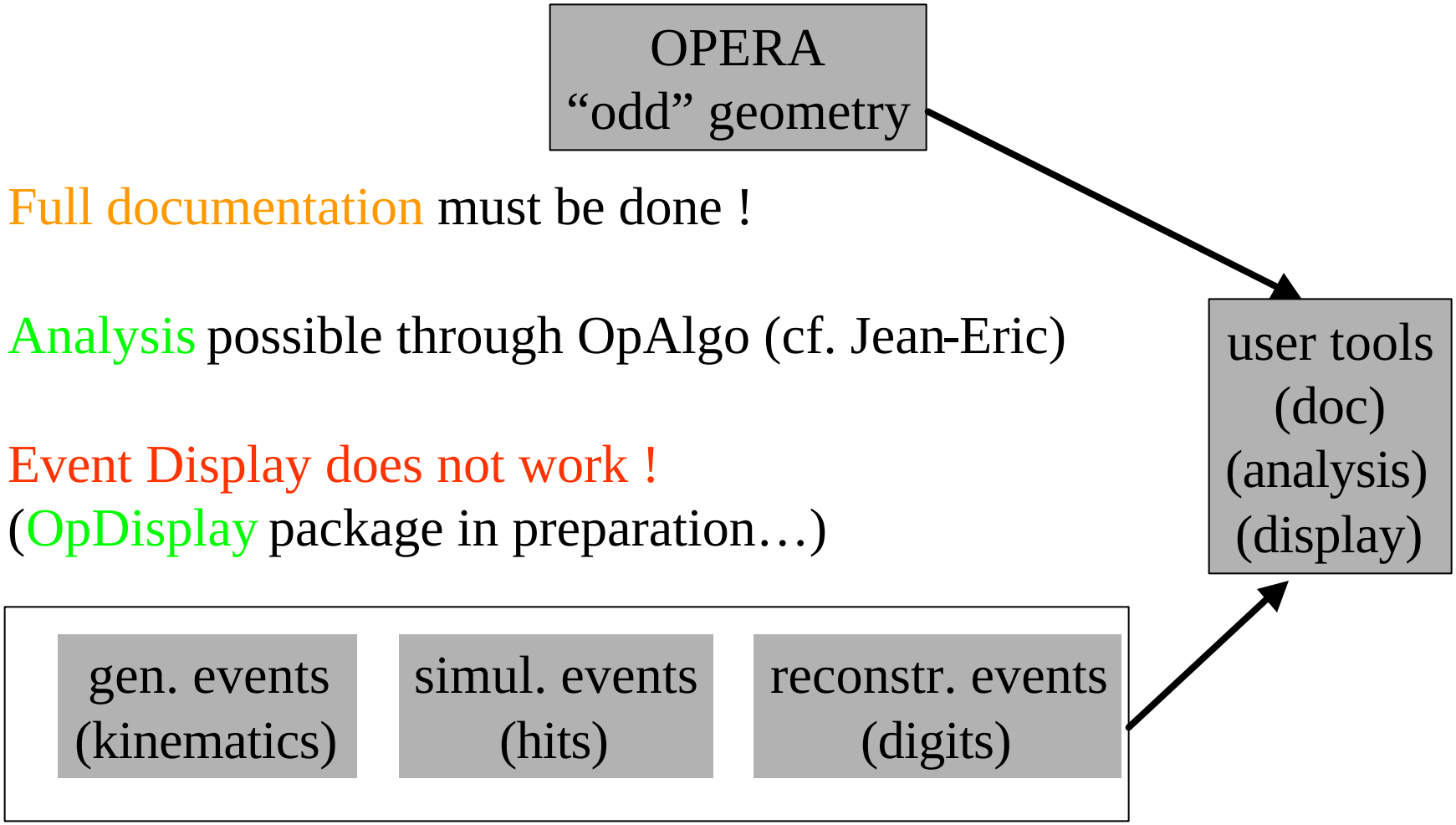
TT scinti.:

- add time information ?
- saturation effect ?

Drift tubes, RPC, XPC:

- to be implemented

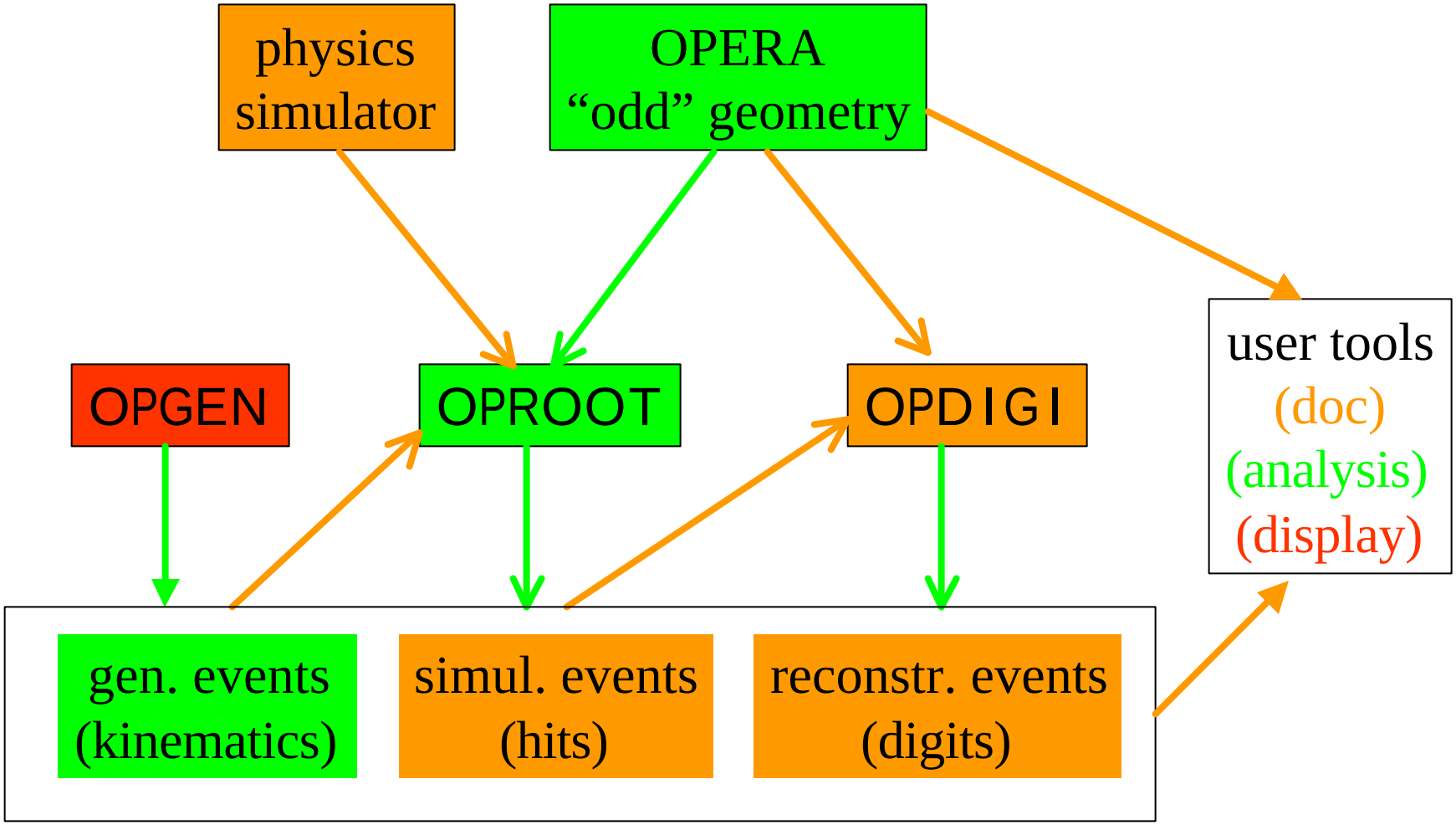




Full documentation must be done !

Analysis possible through OpAlgo (cf. Jean-Eric)

Event Display does not work !
(OpDisplay package in preparation…)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