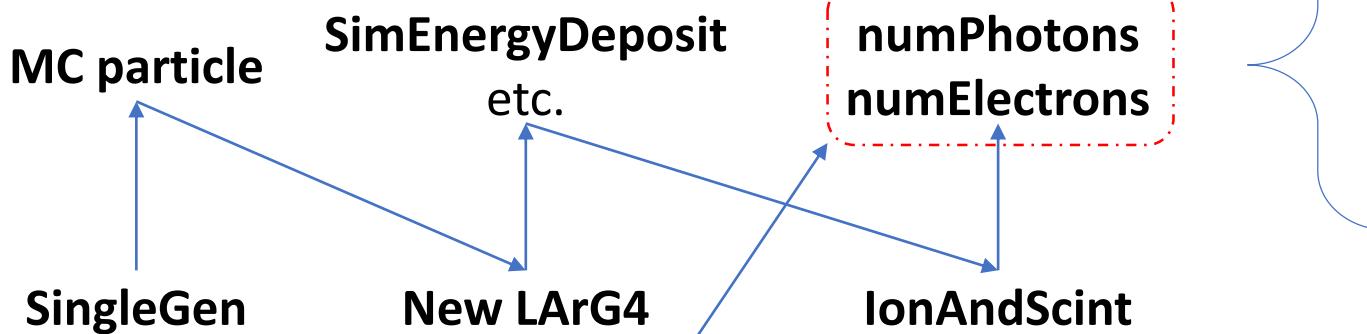


# Workflow

Step:

Event generation      G4 simulation      Ph/El production

Data:

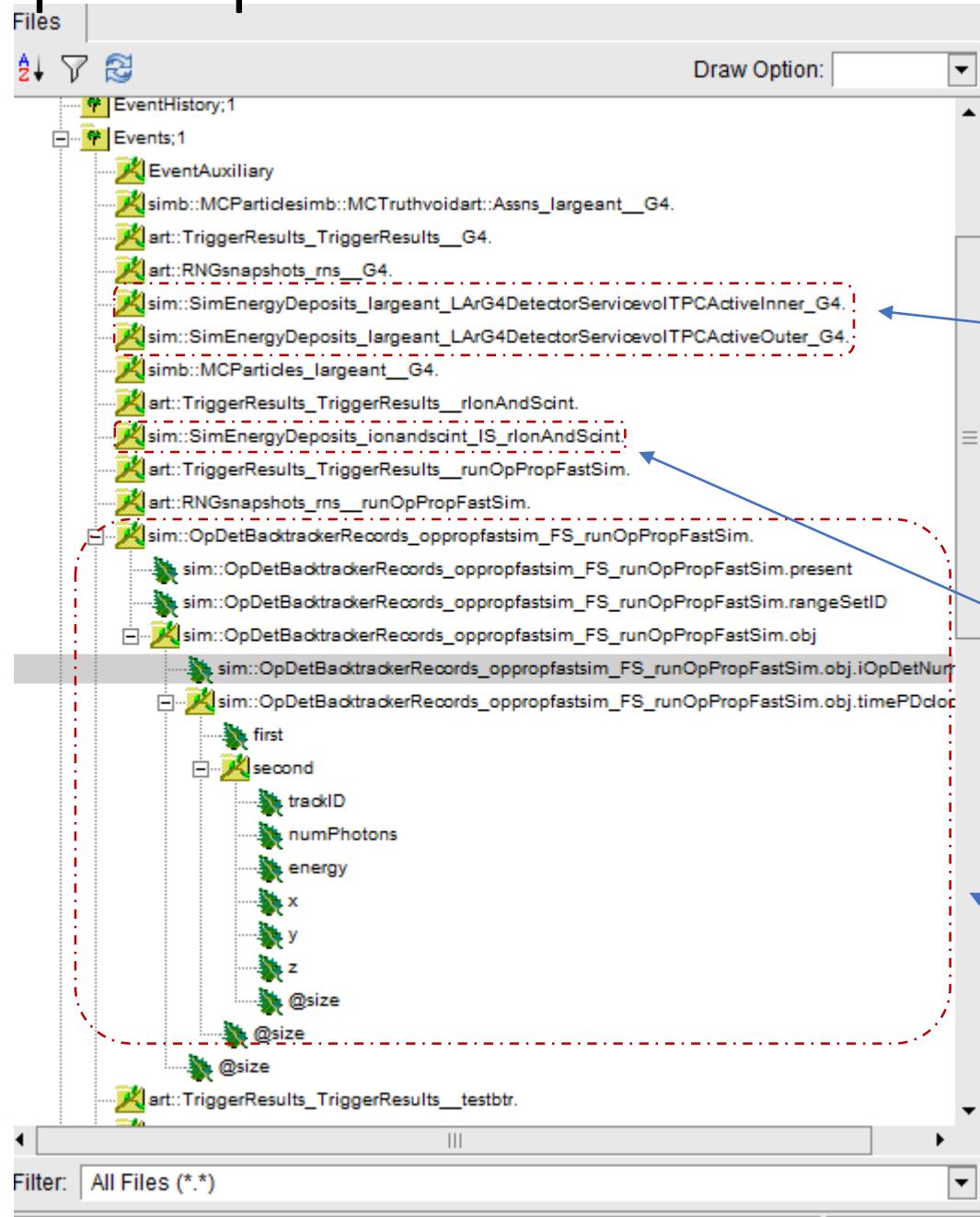


Module:

- Photon simulation
- Charge simulation
- Etc.

- Original information (SimEnergyDeposit) is kept;
- *numPhotons* and *numElectrons* are updated
- Different algorithm can be used

# Sample - photon simulation



## Photon Simulation Workflow

- ✓ Step 0: event generation
- ✓ Step 1: event simulation
  - ✓ **larg4Main**
  - ✓ Refactored GMDL
  - ✓ Produce
    - ✓ *sim:SimEnergyDeposits*
- ✓ Step 2: photon and ionization calc
  - ✓ **IonAndScint**
  - ✓ Read:
    - ✓ *sim:SimEnergyDeposits*
  - ✓ Update:
    - ✓ *numPhotons*
    - ✓ *numElectrons*
- ✓ Step 3: photon propagation simulation
  - ✓ Fast simulation: **OpFastSim**
  - ✓ Use:
    - ✓ PhotonVisibilityService
  - ✓ Produce:
    - ✓ *OpDetBacktrackerRecord*