Scintillation Process

Problem addressed:

• G4Scintillation did NOT receive the total energy of a 500keV e- in LXe

• Reason:
  – When a process sets the ‘StopAndKill’ flag no other PostStep process is invoked
    • even those with the ‘forced’ condition set
Proposed changes

Tracking

– BREAK statement in InvokePostStepDoIt
  • Cannot be removed – G4OpBoundary process crashes at the world-boundary
  • Proposed replacing BREAK by more complicated logic, or introduce a new type of process (only returns secondary particles in G4ParticleChange)

• Geometry:
  – set ‘fWorldBoundary’
  – Cope better with ‘OutofthisWorld’ volume ptr

• Tracking:
  – set ‘fUndefined’ for PostStepPoint in Stepping() method