

# Root and ZBS Output

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**2km-geant4 code outputs:**

- 1. Ntuple with raw and digitized info**
- 2. Text file with geometry info**
- 3. Root file with both:**
  - a. event tree with same info as ntuple**
  - b. geometry tree (single "event") with same info as geo text file**

**For Root output: (coded inside #ifdefs)**

**see 2km-geant4/README.ROOT;  
example scripts in 2km-geant4/root**

**Eventual goal: develop standalone  
C++/Root based reconstruction code  
(Dave Casper has started converting  
his C# polfit version)**

**But for short term, and also for  
eventual validation/comparison of new code,  
we need to run standard SK/KT reconstruction**

**Solution: root2zbs converter which  
creates needed ZBS banks**

**root2zbs: found in "validation" module**

**Creates ZBS file with banks:**

**HEADER**

**TQ**

**MCVERTEX**

**MCVECT**

**CONVVECT**

**MCPARMCONV**

**"Bare bones"... more can easily be added,  
if needed**