POOL in LHCb

- Packages used
- Plans

Packages in use

- StorageSvc
- RootStorageSvc

- Directly used from Gaudi conversion service
- Catalog (xml) in Gaudi with POOL format

Plans

- **We are unhappy using POOL**
  - Not the most efficient use of ROOT
  - Complicated to modify things, which do not meet the POOL model: domain->database->container->object
  - No need anymore to isolate event persistency from ROOT
    - The I/O war is over: ROOT won
    - Gaudi persistency is already an isolation layer
    - Why keep several call stack for something no longer worth it ?

Plans

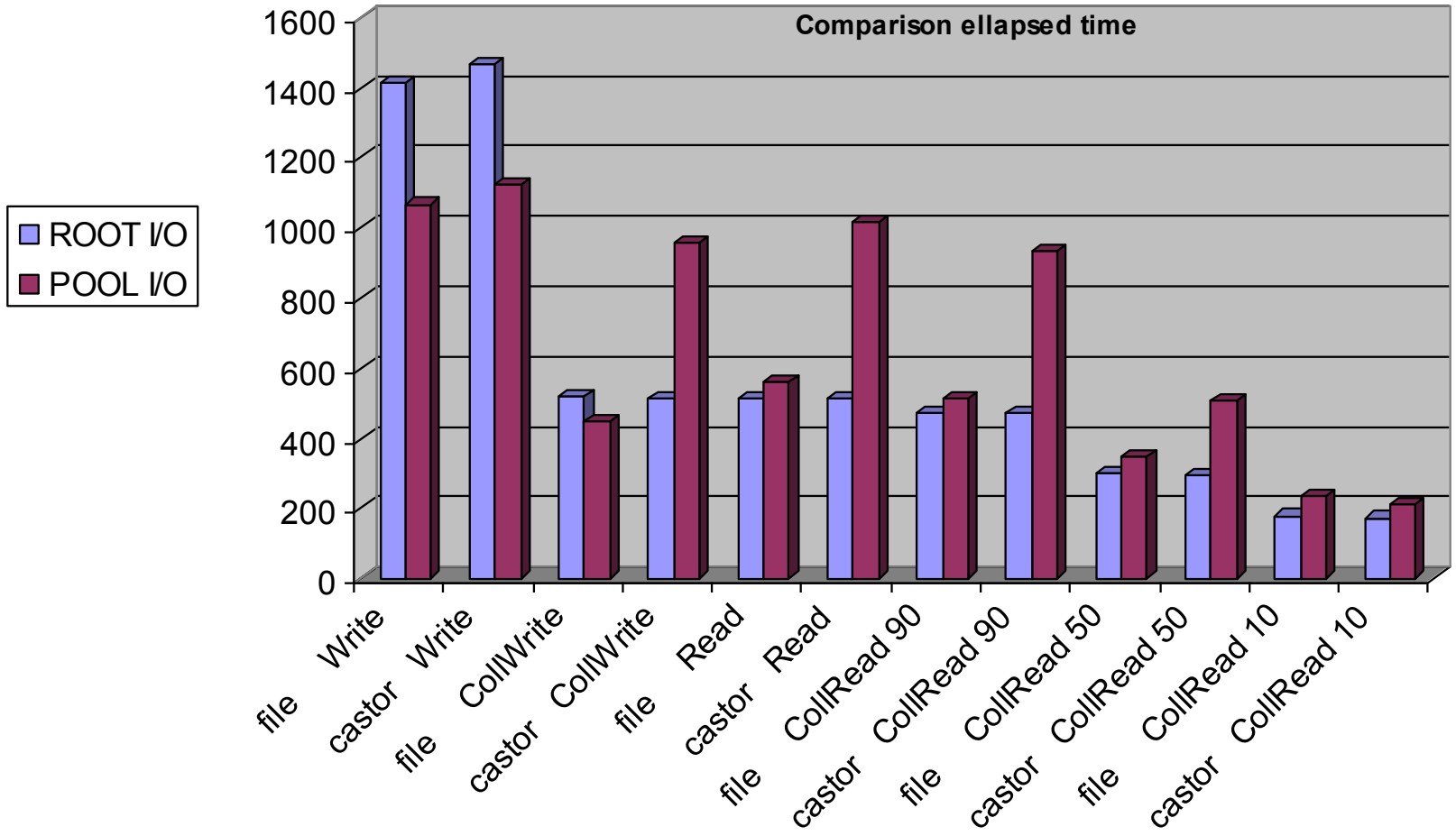
- **Plan is to retire POOL**
  - "Not before the next big shutdown"
  - My claim:
    Won't happen: if, the migration should ~ start now
    It takes some time until all production stuff is tested
  - So ???

- **Clearly I want LHCb to change**
  - POOL maintenance at minimum

POOL Replacement

- **Implementation ready**
  - Developed to test/measure performance of the TTree caches in ROOT
- **Direct use of ROOT from Gaudi conversion service**
- **Change of paradigm:**
  - Fat trees with many branches
  - 1 Tree for all event data
  - Reference mechanism preserved for Gaudi refs
- **Reading of POOL files written by LHCb possible**

LHCb IO Example: Elapsed Time



CPU Consumption: Better utilization