

HEP Data Analysis

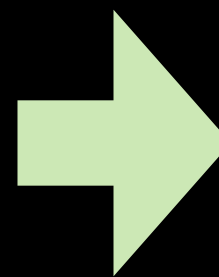
Implement
algorithm



Run over
data set



Make
improvements



The Parallel ROOT Facility, PROOF, is an extension of ROOT enabling interactive analysis in parallel on clusters of computers or many-core machines.

PROOF is primarily meant as an alternative to batch systems for Central Analysis Facilities:

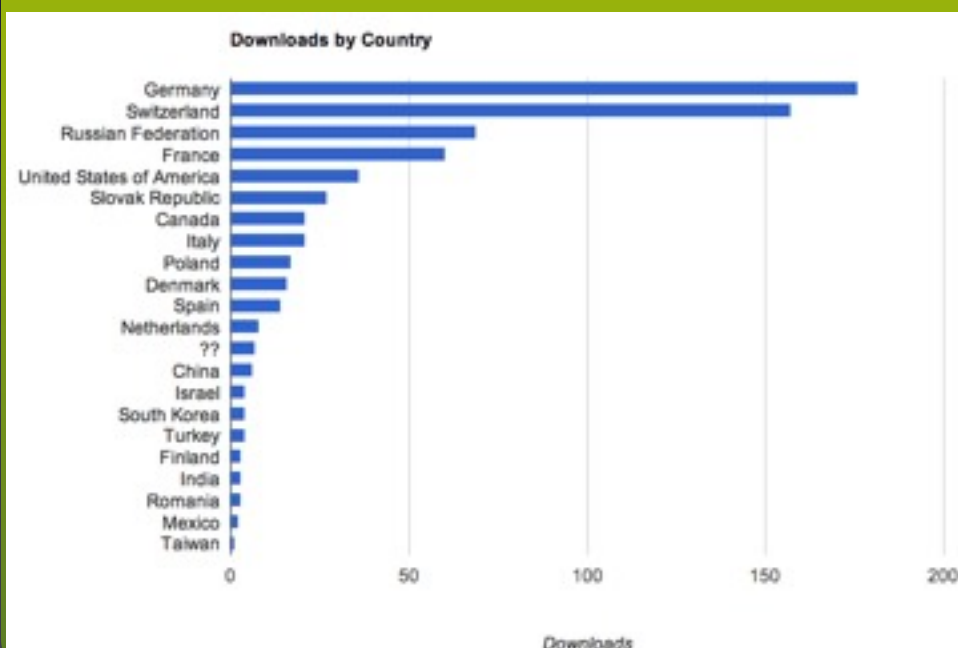
- One user can disturb other users.
- Admin. interventions are needed.
- There is only one ROOT/xrootd version for PROOF services.
- There is a master node limitation.

“PROOF on Demand” (PoD) is a solution for private, dynamic PROOF clusters.

User

- can entirely control dynamic clusters,
- can setup and use it on demand on any RMS (SSH, LSF, PBS, GridEngine, Condor, gLite...),
- can dynamically change an amount of WNs,
- can select a preferable master host,
- doesn't need admins to take an action,
- doesn't disturb other users.

PoD is also very popular outside of GSI:



- 700+ Downloads since June, 2010,
- used in 22 Countries,
- only in 2011 it has more than 170 downloads from unique IPs

Since 2009 GSI phased out a static PROOF cluster and use PROOF only via PoD.

Mainly used by ALICE and FAIR at GSI.

Widely used outside of GSI, for example: it has been chosen by ATLAS as an official PROOF tool for T2-T3 sites.