# ATLAS Lustre Use Cases

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Marcello Barisonzi (Wuppertal)

Wolfgang Ehrenfeld (DESY)

# Lustre Use

We envision two use cases for our Lustre space:

1. data cache for larger event files (data or MC) for repeated reading or writing for users and working groups
2. long term storage for medium size files or things which do not fit into AFS or dCache for users

# Use Cases

1. data cache
2. long term storage

Data cache: Input files (ESD, dESD, AOD, dAOD, NTuple, ...) are copied to Lustre to gain speed in repeated processing. Output files (dAOD, NTuple, Histogram files, ...) are store for further checking before uploading to dCache/dq2 or home institute.

Long term storage: Everything, which does not fit into dCache, AFS or part 1.

- pool files once in dCache/DQ2 can not be put back into DQ2/dCache
- larger file collections as releases, DB installations, program packages might not fit into the AFS home directory (10 GB AFS scratch might help)
- storage of final ntuples/histograms
- ...

# Specifications

1. data cache
2. long term storage

Properties:

- part 1 should be 80-90% of our /scratch space, part 2 10-20%
- both parts should be extendable, but should be unconnected (if part 1 is written full, then part 2 should be unaffected)
- the ratio between part 1 and 2 might be changed over time
- we will enforce an cleanup policy for part 1

Quotas:

- at the moment we do not use quotas
- we might use user quota in part 2 to restrict power users
- we might use group quotas to reserve space in part 1 for working groups