# Hardware Acquisition Plans

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# Detector Simulation Needs

- short jobs and grid submission
  - ilcsim and ilcsim2
- grid jobs
- storage for datasets
  - bluearc

# Dataset Storage

- bluearc /ilc directory
- have 2 TB assigned
  - /ilc/detector and /ilc/accelerator
- currently using 700 GB
  - Hans Wenzel
  - John Yoh
  - mirror of simdist datasets

# Grid

- /ilc/detector under ILC VO
  - registered with OSG
- allocation as of July 16
  - 150 nodes maximum
  - no guaranteed slots
- /ilc/ilc4c for 4th concept has 25 nodes

# Users

- FNAL detector simulation group
- SiD collaborators
- general detector simulation
- perhaps testbeam simulation
- other detector simulation (e.g., 4th concept)

# Needs

- short jobs
  - rapid response
  - debug before using grid
- ilcsim will be out of warranty Aug. 4
- ilcsim2 is new
- next year, add another 4 or 8 processor server
  - 2 GB memory per processor
  - local scratch space

# Storage Needs

- SLAC datasets are already 500 GB
- Caroline has about 200 GB
- recent testbeam efforts generated 5 TB simulated data in 2 months
- 10 TB should meet needs through 2009
- bluearc
  - lose 1/3 for formatting and RAID
  - 15 TB - about $36K

# Grid Needs

- typical large job
  - generate, simulate, reconstruct 1 million events
  - 2 cpu minutes per event on 3.4 GHz processor
  - complete in a month -> 46 nodes at maximum capacity
  - usually only investigating a single process
- 2-3 large jobs and several smaller jobs simultaneously
- 160 DEDICATED nodes

# Acquisition Plans

- short term and grid submission server(s) $12K
  - 8 processors
  - high reliability
- bluearc data storage
  - 15 TB $36K
- 80 dedicated grid worker nodes
  - 8 processors per machine = 10 machines
  - $60K
- opportunistic use of grid