STAR scheduling future directions

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Directions

- Current system
  - Refine, add other features
- Queue system
  - Condor, Condor-g/Globus
- File catalog
  - Active policies and connection to file movers (HRM, GDMP), migration to other tools (MAGDA, GDMP, RLS, ...)

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Current system

- Optimize the policy
  - As the scheduler is being used, fine tune the policy so that the farm is used at top efficiency
- Optimize the queries to the file catalog
  - Make the queries smarter: for example, when a limit on the file exists, take the files from the machine that is less busy

Current system

- Other refinement
  - Produce less garbage (all the temporary scripts and file lists)
  - Better installation
  - Make it available to both BNL and LBL

Queue system

- Investigating the use of Condor
  - First deploy just Condor, and gather experience with that
  - Migrate to Condor-g and Globus, and start submitting jobs across sites
  - Integrate DAGMAN with the file catalog and the file movers (?)

Queue system

- Setup a testbed to gather experience with Condor by itself
  - RCF is investigating on how to deploy Condor
  - Deploy Condor on some nodes to gather experience
  - Integrate Condor in our resource broker
  - When everything works, we can start migrating the whole farm

Queue system

- Setup a testbed to gather experience with Condor-g
  - Setup two farms with Condor-g and gather experience
  - Make changes to the resource broker, to be able to submit across farms
  - Needs a file catalog that works on both sites

File catalog

- Currently analyzing the options
- Keep for now the STAR catalog as it is
  - Making the query smarter
  - Interface with tools like HRM/DRM

File catalog

- Migration to other grid tools
  - Right now, the only part to be rewritten is the method that resolves the query
  - MAGDA's catalog is not completely different, though some issues has to be addressed
  - Integration with a grid catalog might provide other feature (such as file migration) for free