User experience in Department of Imaging Sciences at KCL

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Good user experience

• Mostly run great
• Getting lots of computing jobs done
• Scheduler is generally regarded as fair by users
• User writes shell scripts to write condor scripts to improve his/her usage efficiency
• But …
Not-so-good user experience

• Scheduler seems to regard the same user submitting jobs from different submit machines as being two different users for the purposes of working out job priorities
  – This can be exploited by devious individuals to increase their throughput. But other user usually complain loudly if he sees this happening and there isn't a good reason for it
Not-so-good user experience

- When a Condor machine runs out of space to store checkpoint files, the machine crash
  - The checkpoint files we generate can be quite large because the large memory footprint of the job
  - Tried to set up dedicated checkpoint server, but not successful
Not-so-good user experience

• Sometimes Condor machines seem to lock up and appear to be running when the jobs on them have stalled.
  – This may be a problem with memory intensive jobs or associated with our current network problems but it can be annoying
  – This can be spotted by noticing that the number of claimed machines is less than the number of running jobs as reported by Condor
Not-so-good user experience

• The ability to associate different priorities to a single user’s queued jobs is good although the scheduler doesn't always apply these rigidly
  – Good if the higher priority jobs are executed before the lower priority jobs
Not-so-good user experience

- Well known problem of overheads associated with starting and stopping small jobs
  - This is annoying but understandable
  - We have got some advices from Dr Stephen Jarvis (University of Warwick) to reduce the overheads. But we have not tried them out yet.