MOVIE RENDERING APPLICATION DEPLOYMENT (10 POINTS)

You might use the results from the previews exercise sheet to solve the tasks requested here. The goal is to write an application that is able to copy input files and binaries onto a cluster (karwendel), then render the movie scene (in parallel if done for the last sheet) and then fetches the resulting .gif and cleaning up the cluster afterwards. The cleanup job should be optional, to allow a presentation without cleanup in the exercise! Possible usage:

[myPC] $ ./myRemoteRenderer.sh lab600@karwendel.dps.uibk.ac.at 16 cleanup

1. Write an application that is able to copy / stage-in all the needed files for rendering the movie on a cluster. You might use push or pull approaches, sftp, scp, wget, rsync, but make sure that no passwords are stored in any file in plain text! **(2 point)**

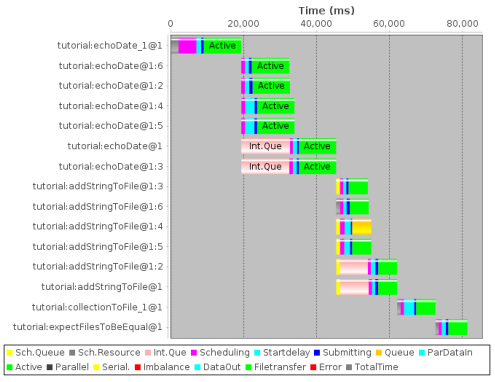
2. Extend the application to execute the rendering using the job submission system on the cluster. **(3 point)**

3. The execution times of each render job and their execution host has to be collected including their start or end time. **(1 point)**

4. After the rendering the merge job should be executed followed by a collection job, that transfers the resulting animation to the origin PC. **(1 point)**

5. Then if selected the application should clean up the cluster drive from the files put there. Make sure only generated files are deleted and no other files! You cannot assume an empty home directory! **(1 point)**

6. Draw a gantt chart of the execution using the collected timings of the render and merger job and their mapping to resources. An example for a (more detailed) gantt chart: **(2 points)**



A report about your experiments including the programs developed (which are either user-friendly or have included descriptions) need to be handed in using OLAT till day before the next exercise at 16:00! Make sure your report file contains: Your name, Parts solved of the sheet and Total points for this sheet achieved. To not submit png or gif files! Be aware that 60% of exercises are needed to pass the course. More details about expected submission is written in the OLAT Mitteillungen!