Understanding Design Issues in Multiprocessor, Multicore, and Real-time Scheduling on Linux Machines

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Proposed Work

Our project will involve research of multiprocessor, multicore, and real time scheduling. It will provide an examination of the issues that arise when a machine has more than one core, how those issues are addressed currently, and how they could be better addressed in the future. We will do this by researching the metrics used to determine performance and use them to compare the performance of current algorithms to the performance of potential new algorithms. Our team will also spend time examining what the current literature says about scheduling methods in order to design our experiments. We hope to gain a deeper understanding of multiprocessor, multicore, and real time scheduling by exploring the performance of various scheduling algorithms and machines.

Timeline & Schedule

Task	Team Member Responsible	Begin Date	End Date
Multiprocessor scheduling design	Hannah	10/25	10/31
Multicore scheduling design issues	John	10/25	10/31
Real-time scheduling design issues	Bridget	10/25	10/31
Linux kernel design	Logan	10/25	10/31
Experimental design and execution	All	11/1	11/10
Presentation & technical report	All	11/11	11/14
Weekly meetings	All	Wednesday 9am or 3pm	11/15