Lab 2 Report

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1. Our BPCU is functional block that maps the generator status (healthy or unhealthy) to contactor status (open or close). It is implemented in Simulink through the use of a Matlab function block. Every time this block is invoked, it checks the status of the four generators and opens and closes the appropriate contactors according to priority table.
2. Reading through the lab document and in designing the BPCU, w came up with a few interesting scenarios. We tested optimal condition (all generators healthy), one failure (either left generator or right generator), and worst case (both main generators off, both auxiliaries working and only one auxiliary working).
3. Simulink was not as prohibitive to our lab as Ptolemy II was. Wiring and text interface (biggest source of trouble with Ptolemy) were very intuitive and well designed. We wanted to use Statemate in order to better model our system but there was a very large learning curve.