In this project, a petri net execution tracer is to be implemented. In particular, the program will read PNML files and output an execution trace. The PNML grammar will be extended to support colored petri nets. That is, places have data types, tokens possess values, and transitions use output functions to compute the values of output tokens. The execution tracer will operate on colored petri nets and plain petri nets. If there is time, the program can be extended to model timed petri nets. The PIPE petri net editor may be used to generate PNML files for basic petri nets.

The output of the execution tracer will be customizable. The user may specify certain conditions to test during execution. For instance, the program may track the number of times a particular marking occurs, the number of times a transition fires, or the range of values that a particular type of token acquires. Debugging commands will also be available. For example, when multiple transitions are active, the user may force a particular transition to fire. The exact features to be implemented will be determined later, since they depend on pace of development.