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Fachbereich Informatik
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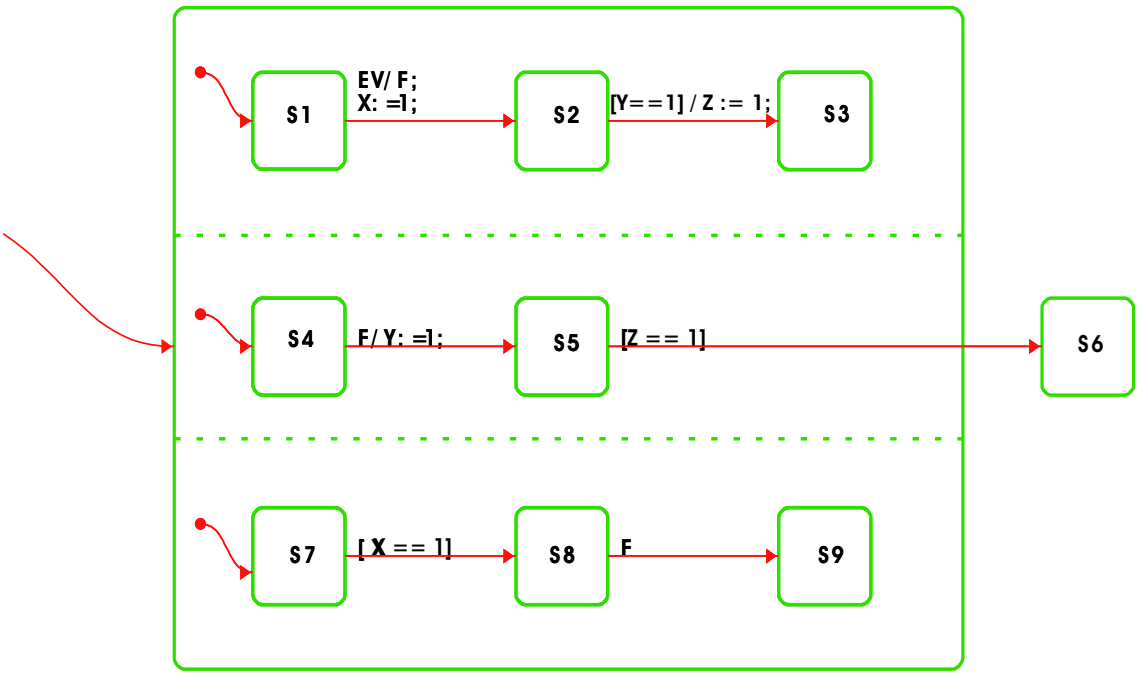
1. Embedded Systems Lab Exercises

1. **Task:** (4 Points)
   Consider the following state chart (the integer variables X, Y and Z initially have their value set to 0):



   Describe all events and actions within this state chart given that event EV occurs in the first configuration (i.e. when states S1, S4 and S7 are active). Determine the particular configurations for each step and fill out the table (see next page). Explain why the transition S8 → S9 can never switch.

Events	X	Y	Z	S	S1	S2	S3	S4	S5	S6	S7	S8	S9
	0	0	0	X	X			X			X		
EV													

2. **Task:** (6 Points)
   Specify the example given in Task 1 using the software tool Dave. Prove your theoretically derived results by simulating the state chart.

   Hint:
   Dave can only run simulations if you click on the *Properties* window and enter: ***org.musoft.statemachine.samples.JavaInterpreter*** in the value field of *Simulator*.