

Assignment 2

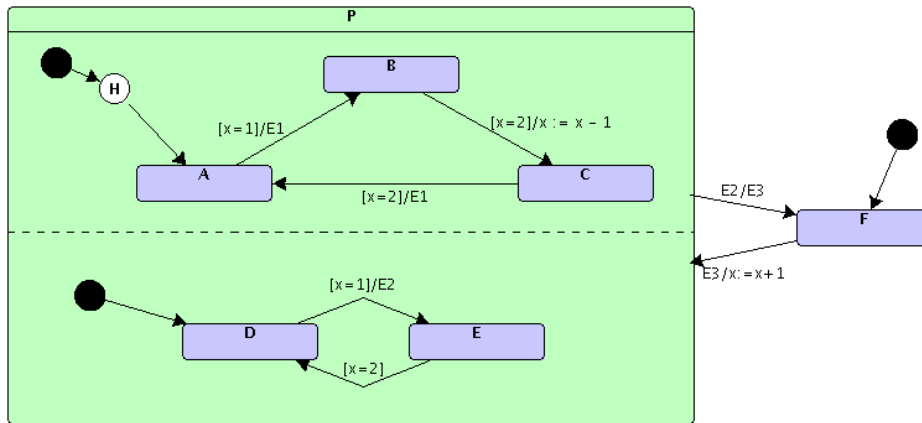
(10 Points)

Deadline is Monday, May 14, 2012, 12:00

Note: The tool *Dave* (modelling of StateCharts) can be downloaded from the EWS workspace or from the official course website (EWS → public → web).

2.1 Statecharts (5 Points)

Consider the following StateChart:



Interpret the progression of this StateChart, given that Event E_3 is triggered in State F with $x = 0$. For every step, determine the particular configurations and fill a table with the states like sketched below. Also substantiate why the transition $E \rightarrow D$ is not triggered by pointing out the behavioral invariant.

Events	x	A	B	C	D	E	F	P
(reset)	0						×	
E_3								

...

2.2 Verification (5 Points)

Specify the previous example using the software tool *Dave*. Prove your theoretically derived results by simulating the state chart. Add the solution to your submission.

General notes:

Dates and additional information can be found at <http://ls12-www.cs.tu-dortmund.de/en/teaching/courses/ss11/cpsf/>. The assignments will be published **Tuesdays** on a weekly basis and have to be solved until the next **Monday**. Drop your sheets into the mailbox in OH16 right across the secretariat (E22) or send an e-mail to your tutor. In the latter case, the submissions must be of either **PDF** or **PS** format. To pass the labs, a minimum of 50% of the total points must be achieved.