Concurrency Theory WS 2013/2014
— Series 12 —

Hand in until February 4th before the exercise class.

Exercise 1 (From CCS to Petri Nets)   (6 Points)

In the lecture, we have introduced an iterative way to define a CCS process into an occurrence net. Please give occurrence nets and their corresponding McMillan prefixes for following CCS processes:

1) Mutex = ((User1 ∥ Sem) ∥ User2)$\setminus\{p, v\}$, where

$$
\begin{aligned}
\text{User1} &= \bar{p}.enter.exit.\bar{v}.\text{User1} \\
\text{Sem} &= p.v.\text{Sem} \\
\text{User2} &= \bar{p}.enter.(exit.\bar{v}.\text{User2} + exit.\bar{v}.\text{nil}).
\end{aligned}
$$

2) $R = (P \parallel Q)\setminus\{b\}$, where $P = a.b.P$ and $Q = c.\bar{b}.(e.P + d.Q)$.