Full CPN Model

I. DECLARATIONS

1) colset SwitchPos= with position|reverse;

2) colset orders =with Order|Convert|Lock|Occupy|Release;

3) colset Command= product SwitchPos*orders;

4) colset StateRes=with free|lock|occupy|convert|release;

5) colset ResourceSwitch = product SwitchPos*StateRes;

6) colset ResourceResult = product ResourceSwitch*orders;

7) colset Communication= with establish|disconnect;

8) colset Response = with response|unresponse;

9) colset Result = with success|fail;

10) colset Task= with register|cancel;

11) colset Procedure= product STRING*Task;

12) colset StateCom = with online|offline;

13) colset TypeRes= with track|switch;

14) colset Approach = product TypeRes*INT;

15) colset ApproachList = list Approach;

16) var TrainID,TrainID1,map,mes:STRING;

17) var sw,sw':SwitchPos;

18) var or:orders;

19) var sta:StateRes;

20) var resp,resp1:Response;

21) var resu,resu1:Result;

22) var task:Task;

23) var com:StateCom;

24) var n,num,num1,num2:INT;
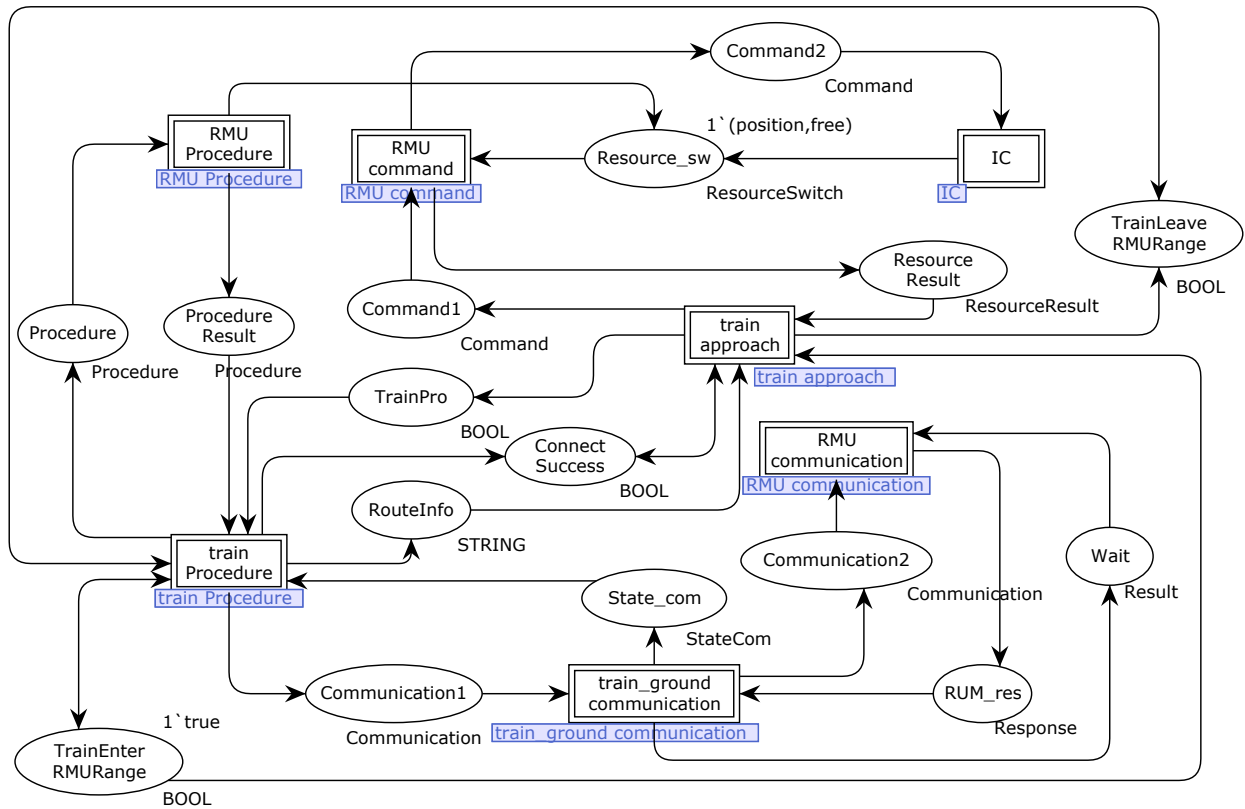
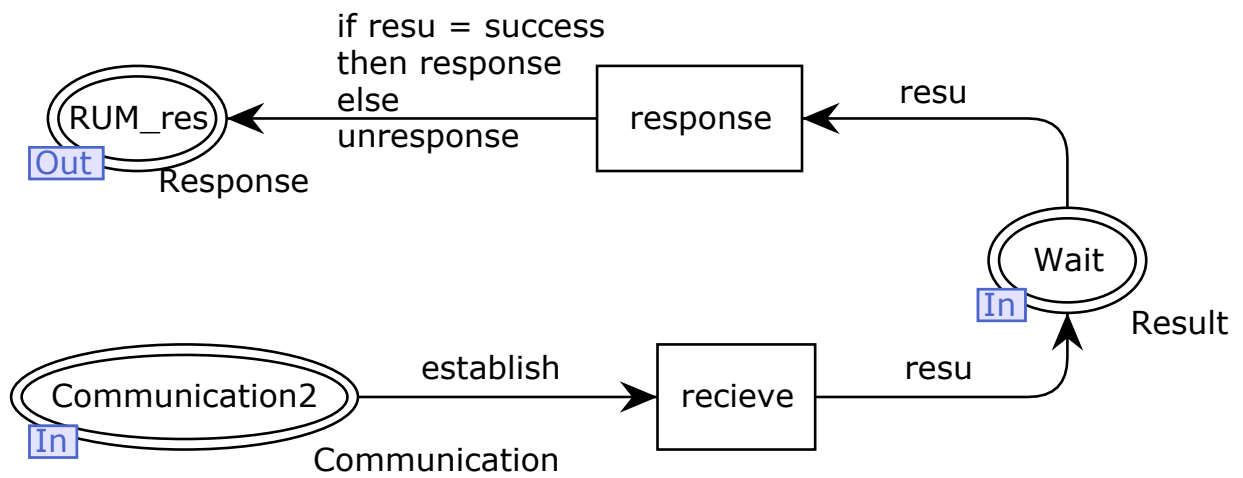25) var ty:TypeRes;

26) var approa:ApproachList;

Fig. 1. Top-Level

Fig. 2. RMU communication

Fig. 3. RMU Procedure
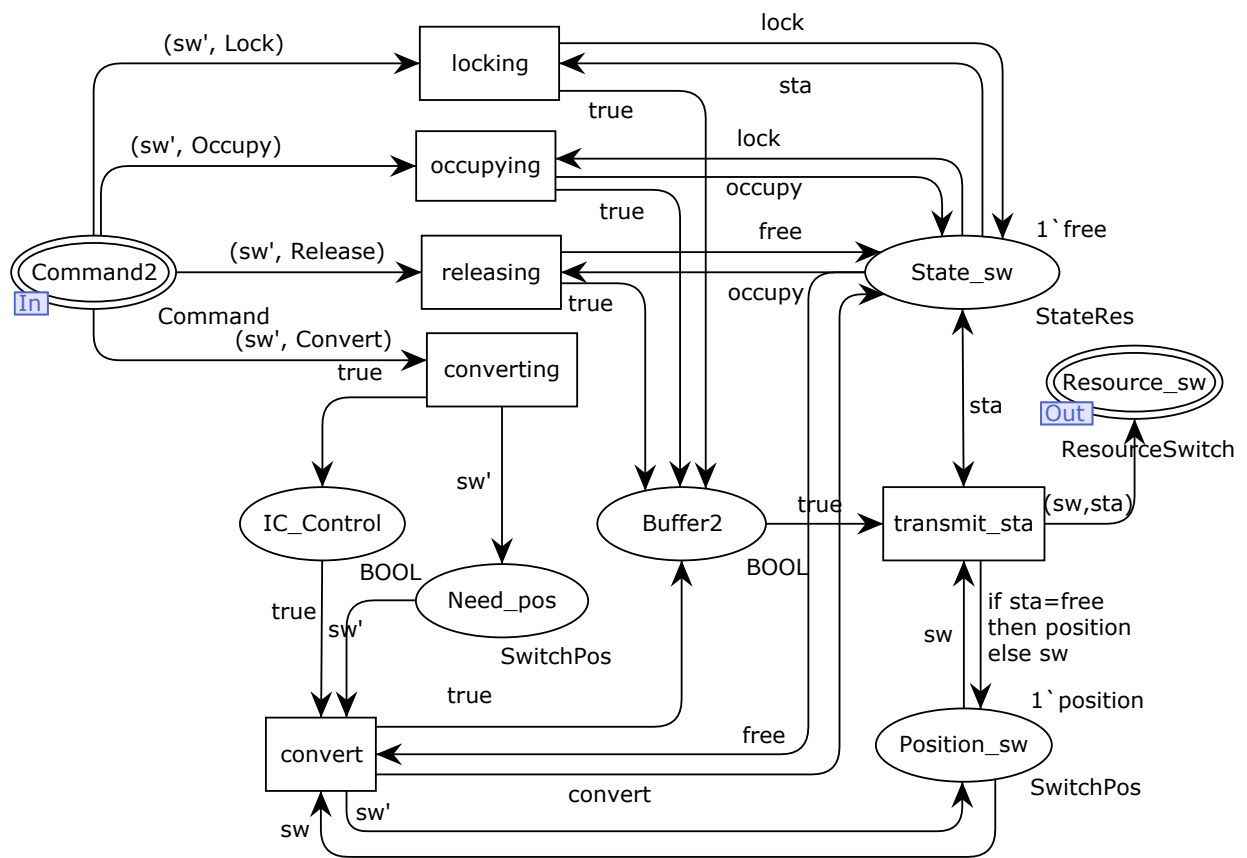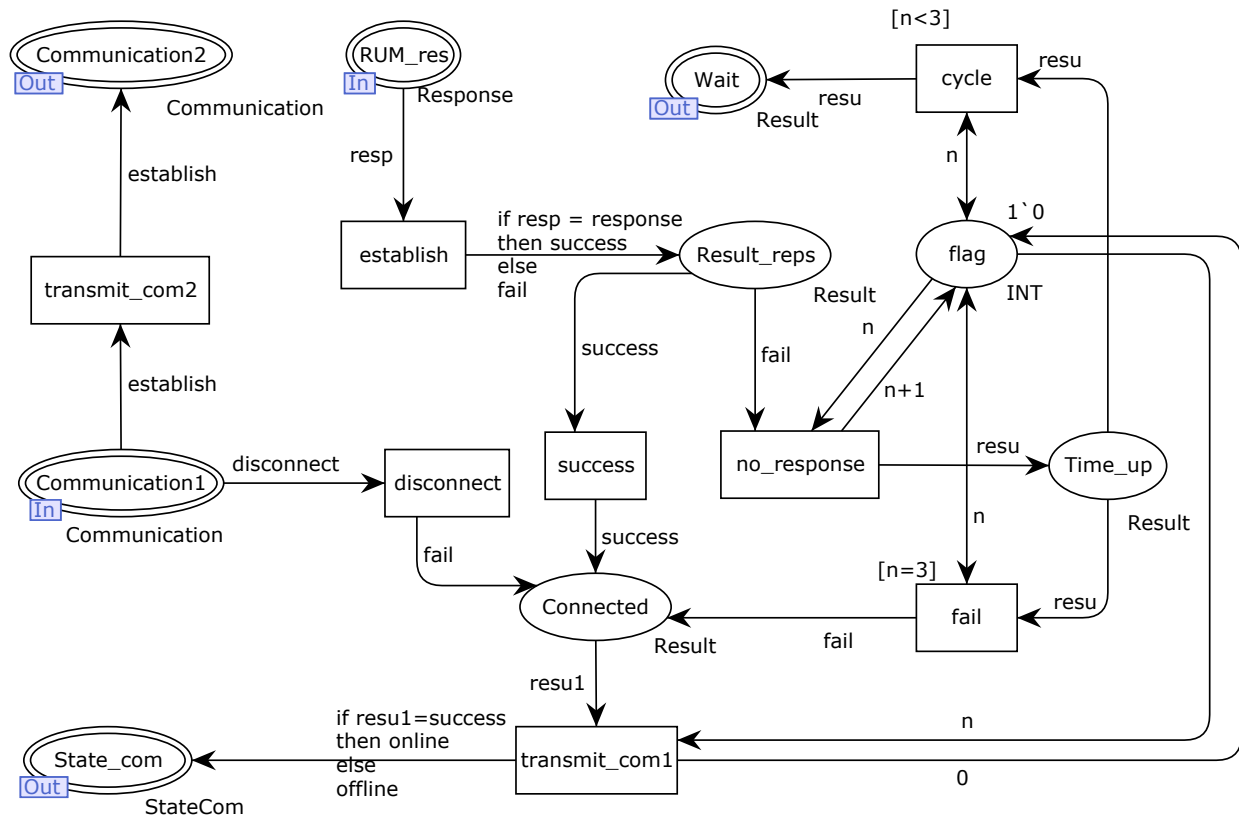

Fig. 4. RMU command

Fig. 5. train approach

Fig. 6. train Procedure

Fig. 7. IC

Fig. 8. train_ground communication