

Safety assessment of autonomous vehicle in variable operational environment using probabilistic modelling

v2

15th of September, 2022

History of the document:

v2. Changes made in the model:

- The accidents in the system are split in two category “Serios Accident”, which occurs in states of fast driving. The accidents that occur in states with slow driving forms the category of “MinorAccidents”. In the Composite model a new atomic model “Rewards” is added which only have two places “MinorAccident” and “SeriousAccident”, which in turn are declared as shared places together with the corresponding Accident states in the atomic models which model the behaviours in each of the 8 system states linked to {Motorway/Intersection, Fast/Slow and Breaking/Non-breaking}.
- The “atomic” modes of all states with “breaking” have been considerably changed. Transitions from state “CPH_Late_XXX” are now allowed to state “Accident” and to any of the other 7 states of the model. A set of new transitions is introduced in which the times to transitions is derived from the data deducting the duration of the “sojournTime”, i.e. of overlooking a road hazard. The model is also changed by computing the rate of transition of timed activity “HDLate_XXX” to Accident in such a way that it accounts for the rates of the transitions to the other states (a model of competing risks is used in these calculations)
- The “bug” in the previous version – that reward values do not change with time has been fixed. The cause was an apparent “divide by 0”, which was possible with the chosen parameters: some transition rates were set to 0 (no actual transitions were observed in the data). The fault (“divide by 0”), however, has not been reported (possibly not caught by the tool) when a numeric solver was used.

In the past we developed an approach to safety assessment of autonomous vehicle (AV) using probabilistic modelling. The approach taken included two essential components:

- Modelling the road hazards as a source of accidents. Road hazards can be qualified with two parameters: i) intervals of between the road hazards, and ii) the duration of the hazards. Both parameters are assumed random variable and are characterised by corresponding probability distributions. We demonstrated that these distributions can be estimated using public datasets.
- Modelling the quality of perception systems (camera, LiDAR, etc.) used to detect the road hazards and to adjust the AV control accordingly. Quality of the perception systems are more difficult to estimate due to the lack of suitable datasets. In such circumstances the safety assessment can be conducted by deploying “sensitivity analysis”, which is effectively a “what-if” study which establish the impact of perception imperfection of AV safety.

In the previous work we developed a model which relied on a small number of parameters and operated at relatively high level of abstraction. For instance, we disregarded the possibility that road hazards and the quality of the AV perception system may vary with the operating conditions. The model parameters were estimated for a relatively narrow range of

operating conditions on a motorway (in Germany) for vehicle driving with a speed between 100 and 130 km/h.

In the current work this limitation is overcome. We now consider the case of an AV which goes through a series of scenarios – oscillating between an “intersection” and “driving freely (e.g., on a motorway)”. We further discriminate between two speed ranges: “high” and “slow”. Finally, the existence of road hazards is indicated by “breaking” undertaken by the vehicle¹.

The model otherwise is conceptually very similar to the previous model [ITSC’22].

Essentially, rather than considering “homogenous” operating conditions in the current model we discriminate between 8 different states:

- Free, fast, breaking (F_F_B)
- Free, fast, non-breaking (F_F_NB)
- Free, slow, breaking (F_S_B)
- Free, slow, non-breaking (F_S_NB)
- Intersection, fast, breaking (IS_F_B)
- Intersection, fast, non-breaking (IS_F_NB)
- Intersection, slow, breaking (IS_S_B)
- Intersection, slow, non-breaking (IS_S_NB)

Transitions between these states are possible. We used a dataset ... to establish the frequency of the transitions between states and the duration of vehicle spending in each of the 8 states listed above before moving to a new state. The analysis of the times in states is shown in a spreadsheet “rsd_events_new_v3_proc.xlsx”.

Each state is modelled with a separate “atomic” model, which captures the transitions to the remaining 7 other states, using “timed activities”, which are parameterised using the data from the excel file about the distributions of the durations spent in the state prior to a transition to a different state. While the model is generic and timed activities with arbitrary probability distributions can be used, for the illustration we assume that all timed activities are exponentially distributed and estimate the rate of the respective exponential distribution from the data (see the excel file).

The states with “breaking” (i.e., X_Y_B, where X is either F or IS and Y is either “F” or “S”) are considered states with hazards. For these we model in some detail the possibility of perception system failing to detect the road hazard immediately upon entering the respective state. Thus, the atomic models of the “breaking states” are slightly more complex than the atomic models of “non-breaking” states.

Full details of the SAN model are presented below.

The models rely on a number of parameters. Most are estimated from the excel file (the timed activities representing the transitions between the states).

The model relies also on a few parameters characterising the perception system reliability in different states:

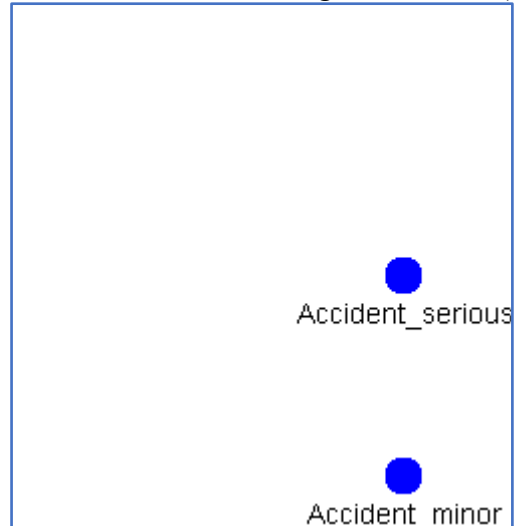
- Hazard detection probability upon entering a “breaking state”
- Duration of not detecting the hazard given the hazard exists (i.e. upon entering a “breaking” state). These were derived from the previous work (Lyft dataset)
- Probabilities of accident from different conditions in a breaking state XYB (where X is either “F” or “IS”, Y is either “F” or “S”):
 - o Hazard has been detected on time, X_Y_B_O_prob
 - o Hazard has not been detected given it exists, MisHazFailXYB_prob
 - o Detecting Hazard late (HDLateAcc_XYB_prob)

¹ The dataset used for model parameterisation is ... <Elaborate on the nature of the dataset. I suspect that this is a non-AV dataset>

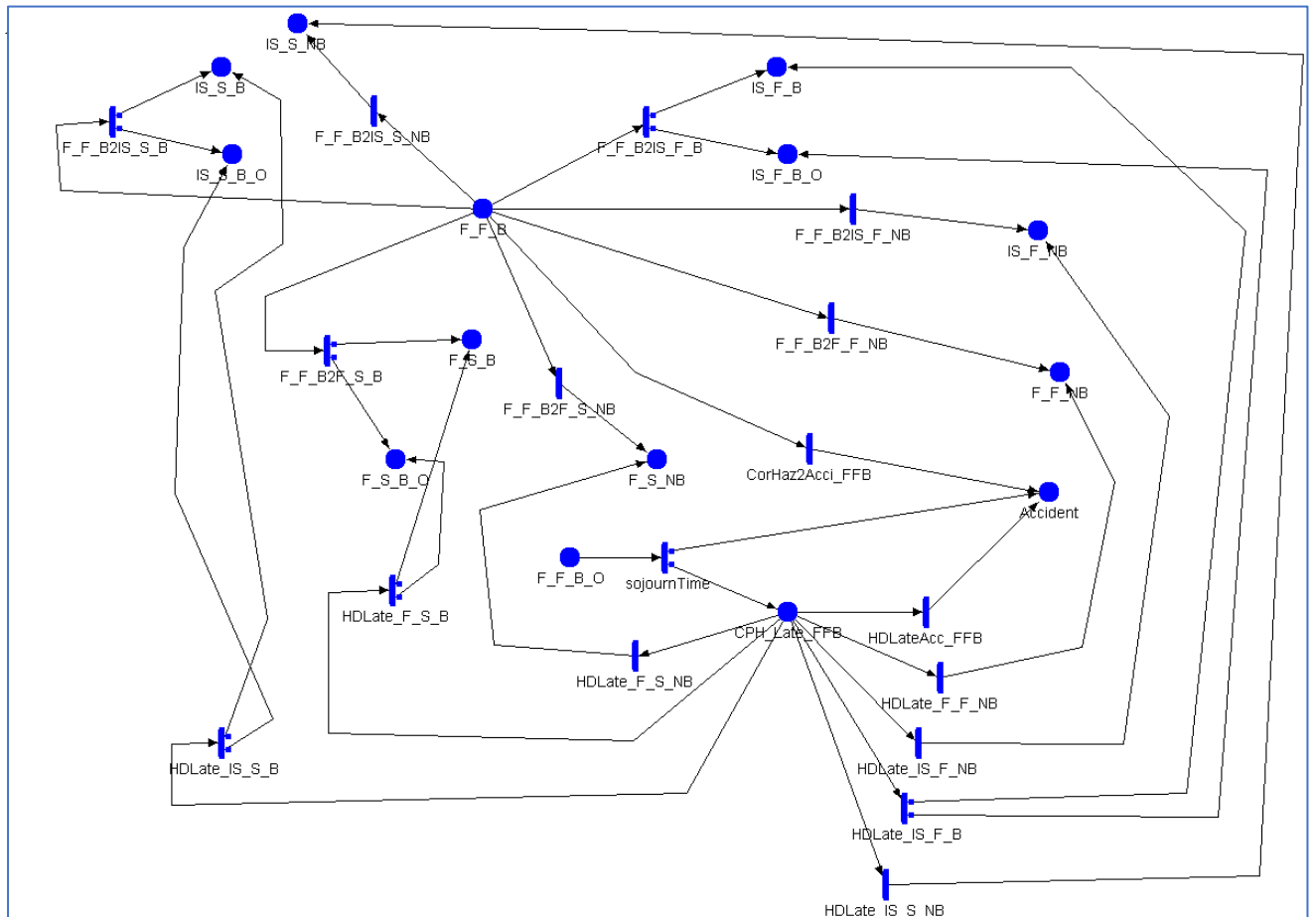
The model was solved for several different parameter values. The results from these studies are presented in Appendix 1 – 16.

Atomic Model: Rewards

This is introduced for convenience in defining the rewards (measures of interest).



Place Attributes:	
Place Names	Initial Markings
Accident_minor	0
Accident_serious	0



Place Attributes:	
Place Names	Initial Markings
Accident	0
CPH_Late_FFB	0
F_F_B	1
F_F_B_O	0
F_F_NB	0
F_S_B	0
F_S_B_O	0
F_S_NB	0
IS_F_B	0
IS_F_B_O	0
IS_F_NB	0
IS_S_B	0
IS_S_B_O	0
IS_S_NB	0
Timed Activity:	CorHaz2Acci_FFB
Distribution Parameters	Rate return((rate_F_F_B2IS_S_B + rate_F_F_B2F_S_B + rate_F_F_B2IS_S_NB + rate_F_F_B2IS_F_B + rate_F_F_B2IS_F_NB +

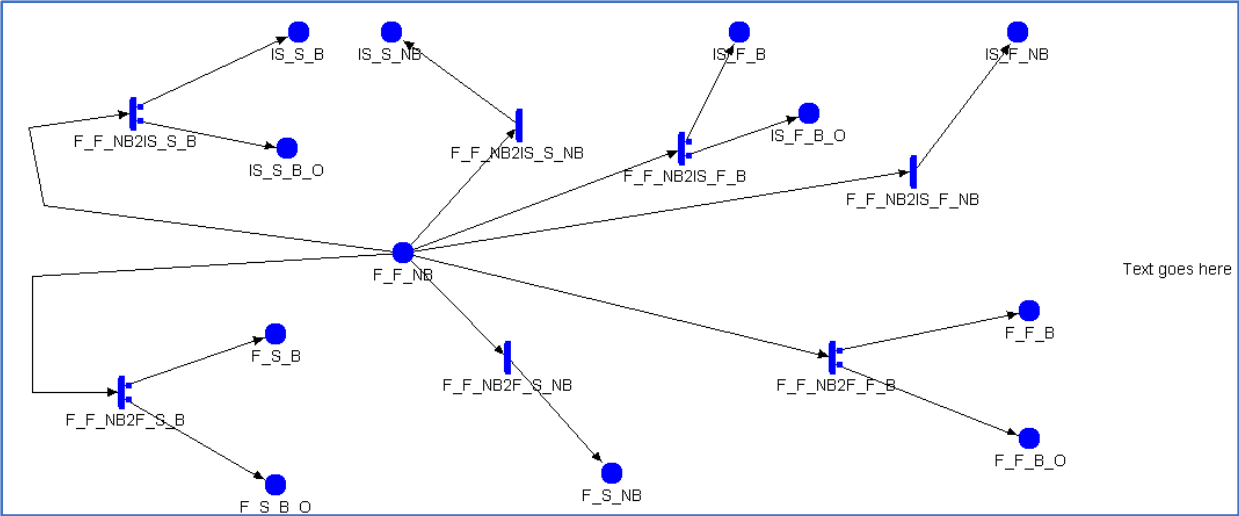
	$\text{rate_F_F_B2F_S_NB} + \text{rate_F_F_B2F_F_NB}) * \text{SafMonFail_FFB_prob} / (1.0 - \text{SafMonFail_FFB_prob});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_F_B2F_F_NB
Distribution Parameters	Rate $\text{return}(\text{rate_F_F_B2F_F_NB});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_F_B2F_S_B
Distribution Parameters	Rate $\text{return}(\text{rate_F_F_B2F_S_B});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 $\text{return}(1.0 - \text{F_S_B_O_prob});$ case 2 $\text{return}(\text{F_S_B_O_prob});$
Timed Activity:	F_F_B2F_S_NB
Distribution Parameters	Rate $\text{return}(\text{rate_F_F_B2F_S_NB});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_F_B2IS_F_B
Distribution Parameters	Rate $\text{return}(\text{rate_F_F_B2IS_F_B});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 $\text{return}(1.0 - \text{IS_F_B_O_prob});$ case 2 $\text{return}(\text{IS_F_B_O_prob});$
Timed Activity:	F_F_B2IS_F_NB
Distribution Parameters	Rate $\text{return}(\text{rate_F_F_B2IS_F_NB});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_F_B2IS_S_B
Distribution Parameters	Rate $\text{return}(\text{rate_F_F_B2IS_S_B});$

Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_S_B_O_prob); case 2 return(IS_S_B_O_prob);
Timed Activity:	F_F_B2IS_S_NB
Distribution Parameters	Rate return(rate_F_F_B2IS_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLateAcc_FFB
Distribution Parameters	Rate double L_rate; L_rate = 0L; if(rate_F_F_B2F_F_NB > 0) L_rate = L_rate + 1.0 / (1.0 / rate_F_F_B2F_F_NB - 1.0 / OH2OKRate_FFB); if(rate_F_F_B2IS_F_NB > 0) L_rate = L_rate + 1.0 / (1.0 / rate_F_F_B2IS_F_NB - 1.0 / OH2OKRate_FFB); if(rate_F_F_B2IS_F_B > 0) L_rate = L_rate + 1.0 / (1.0 / rate_F_F_B2IS_F_B - 1.0 / OH2OKRate_FFB); if(rate_F_F_B2IS_S_NB > 0) L_rate = L_rate + 1.0 / (1.0 / rate_F_F_B2IS_S_NB - 1.0 / OH2OKRate_FFB); if(rate_F_F_B2F_S_NB > 0) L_rate = L_rate + 1.0 / (1.0 / rate_F_F_B2F_S_NB - 1.0 / OH2OKRate_FFB); if(rate_F_F_B2F_S_B > 0) L_rate = L_rate + 1.0 / (1.0 / rate_F_F_B2F_S_B - 1.0 / OH2OKRate_FFB); if(rate_F_F_B2IS_S_B > 0) L_rate = L_rate + 1.0 / (1.0 / rate_F_F_B2IS_S_B - 1.0 / OH2OKRate_FFB); return(HDLateAcc_FFB_prob * L_rate / (1.0 - HDLateAcc_FFB_prob));
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_F_NB
Distribution Parameters	Rate if(rate_F_F_B2F_F_NB > 0) return(1.0 / (1.0 / rate_F_F_B2F_F_NB - 1.0 / OH2OKRate_FFB)); else return(0);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_S_B

Distribution Parameters	Rate <pre> if(rate_FF_B2F_S_B > 0) return(1.0/(1.0/rate_FF_B2F_S_B - 1.0/OH2OKRate_FFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(1.0 - F_S_B_O_prob); </pre> case 2 <pre> return(F_S_B_O_prob); </pre>
Timed Activity:	HDLate_F_S_NB
Distribution Parameters	Rate <pre> if(rate_FF_B2F_S_NB > 0) return(1.0/(1.0/rate_FF_B2F_S_NB - 1.0/OH2OKRate_FFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_IS_F_B
Distribution Parameters	Rate <pre> if(rate_FF_B2IS_F_B > 0) return(1.0/(1.0/rate_FF_B2IS_F_B - 1.0/OH2OKRate_FFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(1.0 - IS_F_B_O_prob); </pre> case 2 <pre> return(IS_F_B_O_prob); </pre>
Timed Activity:	HDLate_IS_F_NB
Distribution Parameters	Rate <pre> if(rate_FF_B2IS_F_NB > 0) return(1.0/(1.0/rate_FF_B2IS_F_NB - 1.0/OH2OKRate_FFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_IS_S_B
Distribution Parameters	Rate <pre> if(rate_FF_B2IS_S_B > 0) </pre>

	<pre> return(1.0/(1.0/rate_FF_B2IS_S_B - 1.0/OH2OKRate_FFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(1.0 - IS_S_B_O_prob); </pre> case 2 <pre> return(IS_S_B_O_prob); </pre>
Timed Activity:	HDLate_IS_S_NB
Distribution Parameters	Rate <pre> if(rate_FF_B2IS_S_NB > 0) return(1.0/(1.0/rate_FF_B2IS_S_NB - 1.0/OH2OKRate_FFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	sojournTime
Distribution Parameters	Rate <pre> return(OH2OKRate_FFB); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(MisHazFailFFB_prob); </pre> case 2 <pre> return(1.0 - MisHazFailFFB_prob); </pre>

Atomic Model: State_FF_NB (“Free, Fast, Non-Breaking” state)

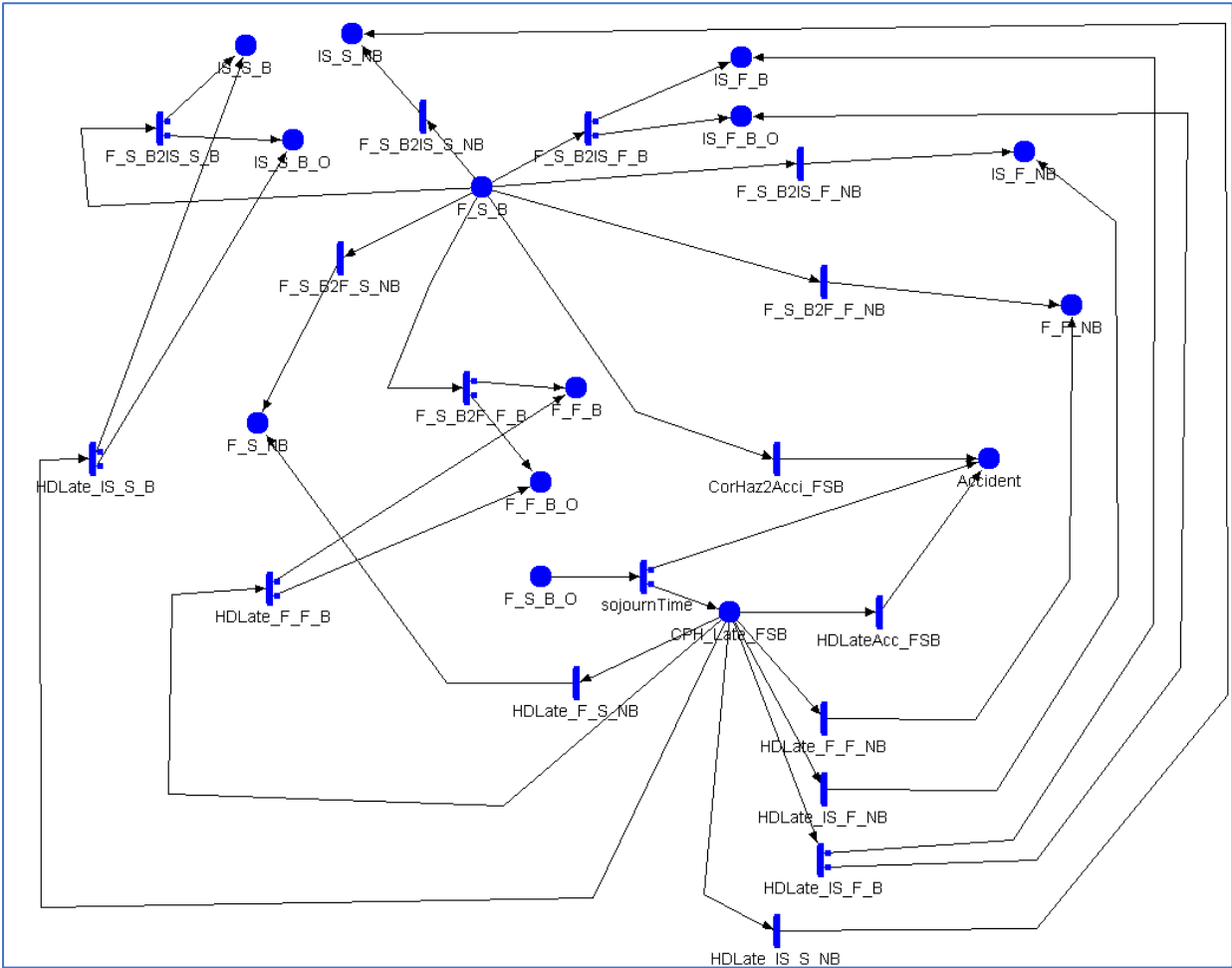


Place Attributes:	
Place Names	Initial Markings

F_F_B	1
F_F_B_O	0
F_F_NB	0
F_S_B	0
F_S_B_O	0
F_S_NB	0
IS_F_B	0
IS_F_B_O	0
IS_F_NB	0
IS_S_B	0
IS_S_B_O	0
IS_S_NB	0
Timed Activity:	F_F_NB2F_F_B
Distribution Parameters	Rate return(rate_F_F_NB2F_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_F_B_O_prob); case 2 return(F_F_B_O_prob);
Timed Activity:	F_F_NB2F_S_B
Distribution Parameters	Rate return(rate_F_F_NB2F_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_S_B_O_prob); case 2 return(F_S_B_O_prob);
Timed Activity:	F_F_NB2F_S_NB
Distribution Parameters	Rate return(rate_F_F_NB2F_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_F_NB2IS_F_B
Distribution Parameters	Rate return(rate_F_F_NB2IS_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_F_B_O_prob); case 2

	<code>return(IS_F_B_O_prob);</code>
Timed Activity:	F_F_NB2IS_F_NB
Distribution Parameters	Rate <code>return(rate_F_F_NB2IS_F_NB);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_F_NB2IS_S_B
Distribution Parameters	Rate <code>return(rate_F_F_NB2IS_S_B);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <code>return(1.0 - IS_S_B_O_prob);</code> case 2 <code>return(IS_S_B_O_prob);</code>
Timed Activity:	F_F_NB2IS_S_NB
Distribution Parameters	Rate <code>return(rate_F_F_NB2IS_S_NB);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)

Atomic Model: State_F_S_B (“Free, Slow, Breaking” state)



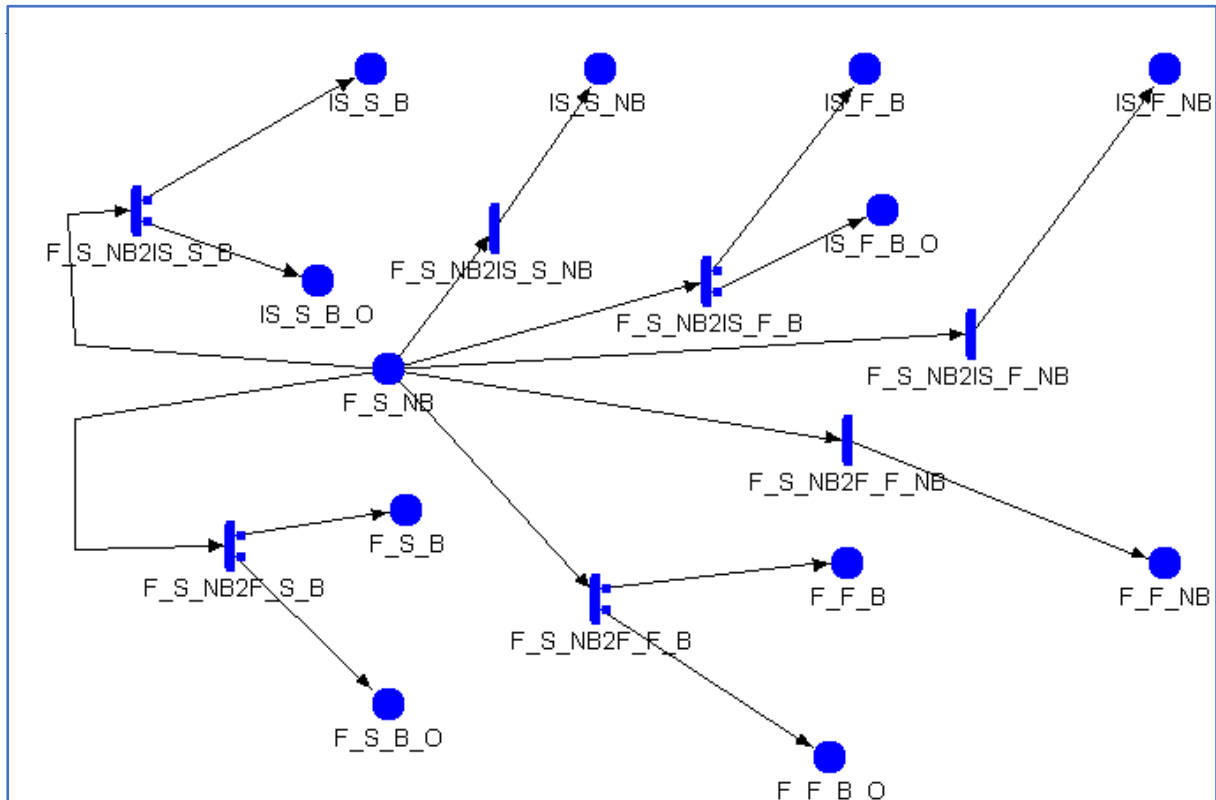
Place Attributes:	
Place Names	Initial Markings
Accident	0
CPH_Late_FSB	0
F_F_B	1
F_F_B_O	0
F_F_NB	0
F_S_B	0
F_S_B_O	0
F_S_NB	0
IS_F_B	0
IS_F_B_O	0
IS_F_NB	0
IS_S_B	0
IS_S_B_O	0
IS_S_NB	0
Timed Activity:	CorHaz2Acci_FSB

Distribution Parameters	Rate $\text{return}((\text{rate_F_S_B2IS_S_B} + \text{rate_F_S_B2IS_S_NB} + \text{rate_F_S_B2F_S_NB} + \text{rate_F_S_B2IS_F_B} + \text{rate_F_S_B2IS_F_NB} + \text{rate_F_S_B2F_F_NB} + \text{rate_F_S_B2F_F_B}) * \text{SafMonFailFSB_prob} / (1.0 - \text{SafMonFailFSB_prob}));$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_S_B2F_F_B
Distribution Parameters	Rate $\text{return}(\text{rate_F_S_B2F_F_B});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 $\text{return}(1.0 - \text{F_F_B_O_prob});$ case 2 $\text{return}(\text{F_F_B_O_prob});$
Timed Activity:	F_S_B2F_F_NB
Distribution Parameters	Rate $\text{return}(\text{rate_F_S_B2F_F_NB});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_S_B2F_S_NB
Distribution Parameters	Rate $\text{return}(\text{rate_F_S_B2F_S_NB});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_S_B2IS_F_B
Distribution Parameters	Rate $\text{return}(\text{rate_F_S_B2IS_F_B});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 $\text{return}(1.0 - \text{IS_F_B_O_prob});$ case 2 $\text{return}(\text{IS_F_B_O_prob});$
Timed Activity:	F_S_B2IS_F_NB
Distribution Parameters	Rate $\text{return}(\text{rate_F_S_B2IS_F_NB});$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_S_B2IS_S_B

Distribution Parameters	Rate return(rate_F_S_B2IS_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_S_B_O_prob); case 2 return(IS_S_B_O_prob);
Timed Activity:	F_S_B2IS_S_NB
Distribution Parameters	Rate return(rate_F_S_B2IS_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLateAcc_FSB
Distribution Parameters	Rate double L_rate; L_rate = 0L; if(rate_F_S_B2F_F_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_F_S_B2F_F_NB - 1.0/OH2OKRate_FSB); if(rate_F_S_B2IS_F_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_F_S_B2IS_F_NB - 1.0/OH2OKRate_FSB); if(rate_F_S_B2IS_F_B > 0) L_rate = L_rate + 1.0/(1.0/rate_F_S_B2IS_F_B - 1.0/OH2OKRate_FSB); if(rate_F_S_B2IS_S_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_F_S_B2IS_S_NB - 1.0/OH2OKRate_FSB); if(rate_F_S_B2F_S_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_F_S_B2F_S_NB - 1.0/OH2OKRate_FSB); if(rate_F_S_B2F_F_B > 0) L_rate = L_rate + 1.0/(1.0/rate_F_S_B2F_F_B - 1.0/OH2OKRate_FSB); if(rate_F_S_B2IS_S_B > 0) L_rate = L_rate + 1.0/(1.0/rate_F_S_B2IS_S_B - 1.0/OH2OKRate_FSB); return(HDLateAcc_FSB_prob * L_rate / (1.0 - HDLateAcc_FSB_prob));
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_F_B
Distribution Parameters	Rate if(rate_F_S_B2F_F_B > 0) return(1.0/(1.0/rate_F_S_B2F_F_B - 1.0/OH2OKRate_FSB)); else return(0);
Activation Predicate	(none)

Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_F_B_O_prob); case 2 return(F_F_B_O_prob);
Timed Activity:	HDLate_F_F_NB
Distribution Parameters	Rate if(rate_F_S_B2F_F_NB > 0) return(1.0/(1.0/rate_F_S_B2F_F_NB - 1.0/OH2OKRate_FSB)); else return(0);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_S_NB
Distribution Parameters	Rate if(rate_F_S_B2F_S_NB > 0) return(1.0/(1.0/rate_F_S_B2F_S_NB - 1.0/OH2OKRate_FSB)); else return(0);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_IS_F_B
Distribution Parameters	Rate if(rate_F_S_B2IS_F_B > 0) return(1.0/(1.0/rate_F_S_B2IS_F_B - 1.0/OH2OKRate_FSB)); else return(0);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_F_B_O_prob); case 2 return(IS_F_B_O_prob);
Timed Activity:	HDLate_IS_F_NB
Distribution Parameters	Rate if(rate_F_S_B2IS_F_NB > 0) return(1.0/(1.0/rate_F_S_B2IS_F_NB - 1.0/OH2OKRate_FSB)); else return(0);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_IS_S_B

Distribution Parameters	Rate <pre> if(rate_F_S_B2IS_S_B > 0) return(1.0/(1.0/rate_F_S_B2IS_S_B - 1.0/OH2OKRate_FSB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(1.0 - IS_S_B_O_prob); </pre> case 2 <pre> return(IS_S_B_O_prob); </pre>
Timed Activity:	HDLate_IS_S_NB
Distribution Parameters	Rate <pre> if(rate_F_S_B2IS_S_NB > 0) return(1.0/(1.0/rate_F_S_B2IS_F_NB - 1.0/OH2OKRate_FSB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	sojournTime
Distribution Parameters	Rate <pre> return(OH2OKRate_FSB); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(MisHazFailFSB_prob); </pre> case 2 <pre> return(1.0 - MisHazFailFSB_prob); </pre>

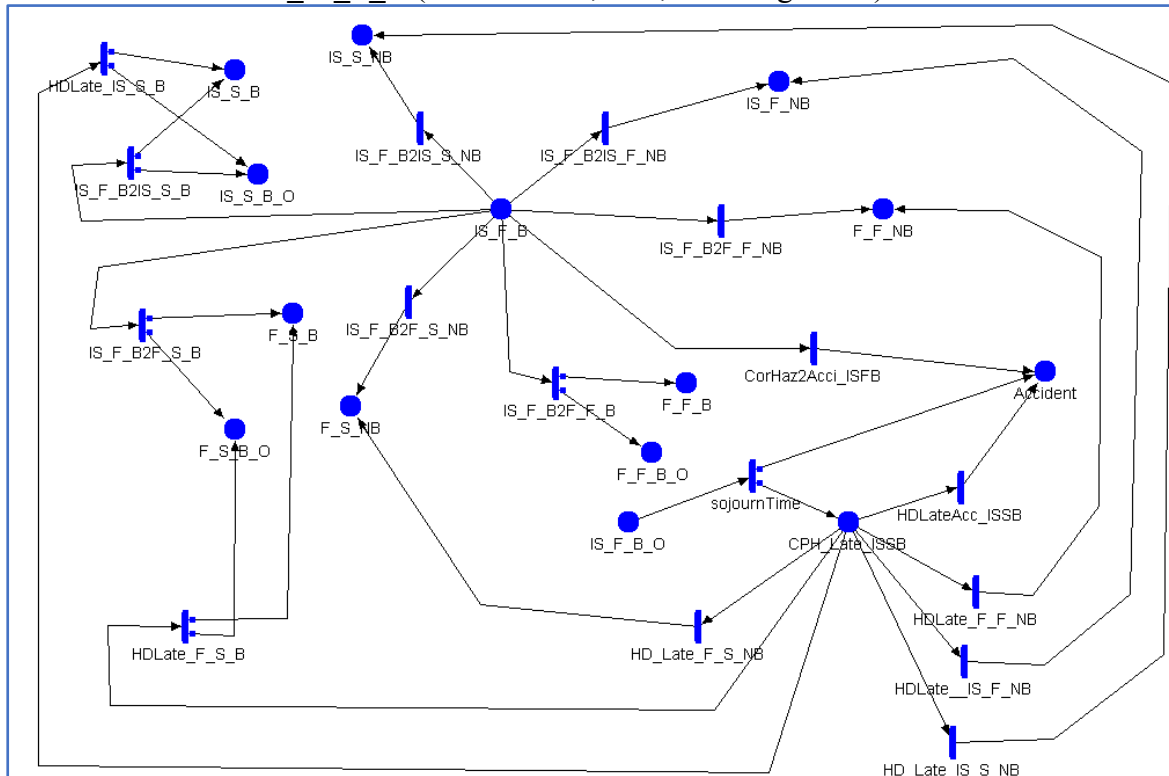


Place Attributes:	
Place Names	Initial Markings
F_F_B	1
F_F_B_O	0
F_F_NB	0
F_S_B	0
F_S_B_O	0
F_S_NB	0
IS_F_B	0
IS_F_B_O	0
IS_F_NB	0
IS_S_B	0
IS_S_B_O	0
IS_S_NB	0
Timed Activity:	F_S_NB2F_F_B
Distribution Parameters	Rate return(rate_F_S_NB2F_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_F_B_O_prob); case 2 return(F_F_B_O_prob);

Timed Activity:	F_S_NB2F_F_NB
Distribution Parameters	Rate return(rate_F_S_NB2F_F_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_S_NB2F_S_B
Distribution Parameters	Rate return(rate_F_S_NB2F_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_S_B_O_prob); case 2 return(F_S_B_O_prob);
Timed Activity:	F_S_NB2IS_F_B
Distribution Parameters	Rate return(rate_F_S_NB2IS_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_F_B_O_prob); case 2 return(IS_F_B_O_prob);
Timed Activity:	F_S_NB2IS_F_NB
Distribution Parameters	Rate return(rate_F_S_NB2IS_F_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	F_S_NB2IS_S_B
Distribution Parameters	Rate return(rate_F_S_NB2IS_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_S_B_O_prob); case 2 return(IS_S_B_O_prob);
Timed Activity:	F_S_NB2IS_S_NB
Distribution Parameters	Rate return(rate_F_S_NB2IS_S_NB);
Activation Predicate	(none)

Reactivation Predicate	(none)
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Atomic Model: State_IS_F_B (“Intersection, Fast, Breaking” state)



Place Attributes:	
Place Names	Initial Markings
Accident	0
CPH_Late_ISSB	0
F_F_B	1
F_F_B_O	0
F_F_NB	0
F_S_B	0
F_S_B_O	0
F_S_NB	0
IS_F_B	0
IS_F_B_O	0
IS_F_NB	0
IS_S_B	0
IS_S_B_O	0
IS_S_NB	0
Timed Activity:	CorHaz2Acci_ISFB
Distribution Parameters	Rate $\text{return}((\text{rate_IS_F_B2IS_S_B} + \text{rate_IS_F_B2F_S_B} + \text{rate_IS_F_B2IS_S_NB} + \text{rate_IS_F_B2IS_F_NB} + \text{rate_IS_F_B2F_S_NB} + \text{rate_IS_F_B2F_F_B} + \text{rate_IS_F_B2F_F_NB}) * \text{SafMonFailISFB_prob} / (1.0 - \text{SafMonFailISFB_prob}));$

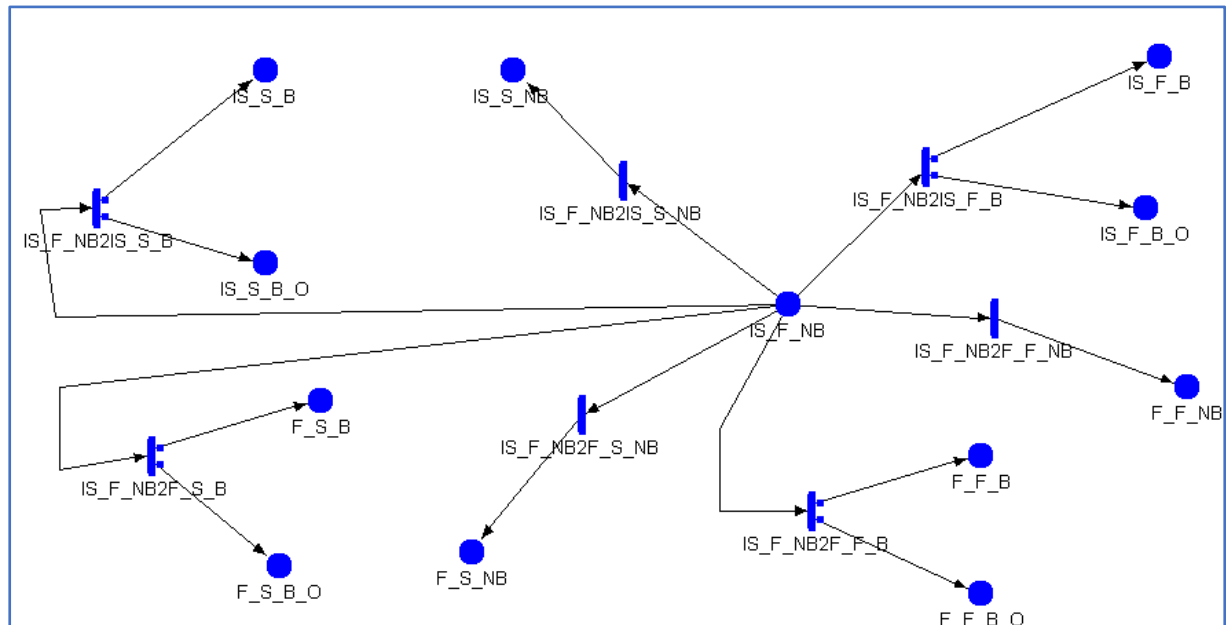
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLateAcc_ISSB
Distribution Parameters	Rate <pre> double L_rate; L_rate = 0L; if(rate_IS_F_B2F_F_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_F_B2F_F_NB - 1.0/OH2OKRate_ISFB); if(rate_IS_F_B2IS_F_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_F_B2IS_F_NB - 1.0/OH2OKRate_ISFB); if(rate_IS_F_B2F_F_B > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_F_B2F_F_B - 1.0/OH2OKRate_ISFB); if(rate_IS_F_B2IS_S_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_F_B2IS_S_NB - 1.0/OH2OKRate_ISFB); if(rate_IS_F_B2F_S_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_F_B2F_S_NB - 1.0/OH2OKRate_ISFB); if(rate_IS_F_B2F_S_B > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_F_B2F_S_B - 1.0/OH2OKRate_ISFB); if(rate_IS_F_B2IS_S_B > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_F_B2IS_S_B - 1.0/OH2OKRate_ISFB); return(HDLateAcc_ISFB_prob * L_rate / (1.0 - HDLateAcc_ISFB_prob)); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_F_NB
Distribution Parameters	Rate <pre> if(rate_IS_F_B2F_F_NB > 0) return(1.0/(1.0/rate_IS_F_B2F_F_NB - 1.0/OH2OKRate_ISFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_S_B
Distribution Parameters	Rate <pre> if(rate_IS_F_B2F_S_B > 0) return(1.0/(1.0/rate_IS_F_B2F_S_B - 1.0/OH2OKRate_ISFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1

	<pre> return(1.0 - F_S_B_O_prob); case 2 return(F_S_B_O_prob); </pre>
Timed Activity:	HDLate_IS_S_B
Distribution Parameters	Rate <pre> if(rate_IS_F_B2IS_S_B > 0) return(1.0/(1.0/rate_IS_F_B2IS_S_B - 1.0/OH2OKRate_ISFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(1.0 - IS_S_B_O_prob); case 2 return(IS_S_B_O_prob); </pre>
Timed Activity:	HDLate__IS_F_NB
Distribution Parameters	Rate <pre> if(rate_IS_F_B2IS_F_NB > 0) return(1.0/(1.0/rate_IS_F_B2IS_F_NB - 1.0/OH2OKRate_ISFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HD_Late_F_S_NB
Distribution Parameters	Rate <pre> if(rate_IS_F_B2F_S_NB > 0) return(1.0/(1.0/rate_IS_F_B2F_S_NB - 1.0/OH2OKRate_ISFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HD_Late_IS_S_NB
Distribution Parameters	Rate <pre> if(rate_IS_F_B2IS_S_NB > 0) return(1.0/(1.0/rate_IS_F_B2IS_S_NB - 1.0/OH2OKRate_ISFB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_F_B2F_F_B
Distribution Parameters	Rate <pre> return(rate_IS_F_B2F_F_B); </pre>

Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_F_B_O_prob); case 2 return(F_F_B_O_prob);
Timed Activity:	IS_F_B2F_F_NB
Distribution Parameters	Rate return(rate_IS_F_B2F_F_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_F_B2F_S_B
Distribution Parameters	Rate return(rate_IS_F_B2F_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_S_B_O_prob); case 2 return(F_S_B_O_prob);
Timed Activity:	IS_F_B2F_S_NB
Distribution Parameters	Rate return(rate_IS_F_B2F_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_F_B2IS_F_NB
Distribution Parameters	Rate return(rate_IS_F_B2IS_F_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_F_B2IS_S_B
Distribution Parameters	Rate return(rate_IS_F_B2IS_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_S_B_O_prob); case 2 return(IS_S_B_O_prob);
Timed Activity:	IS_F_B2IS_S_NB

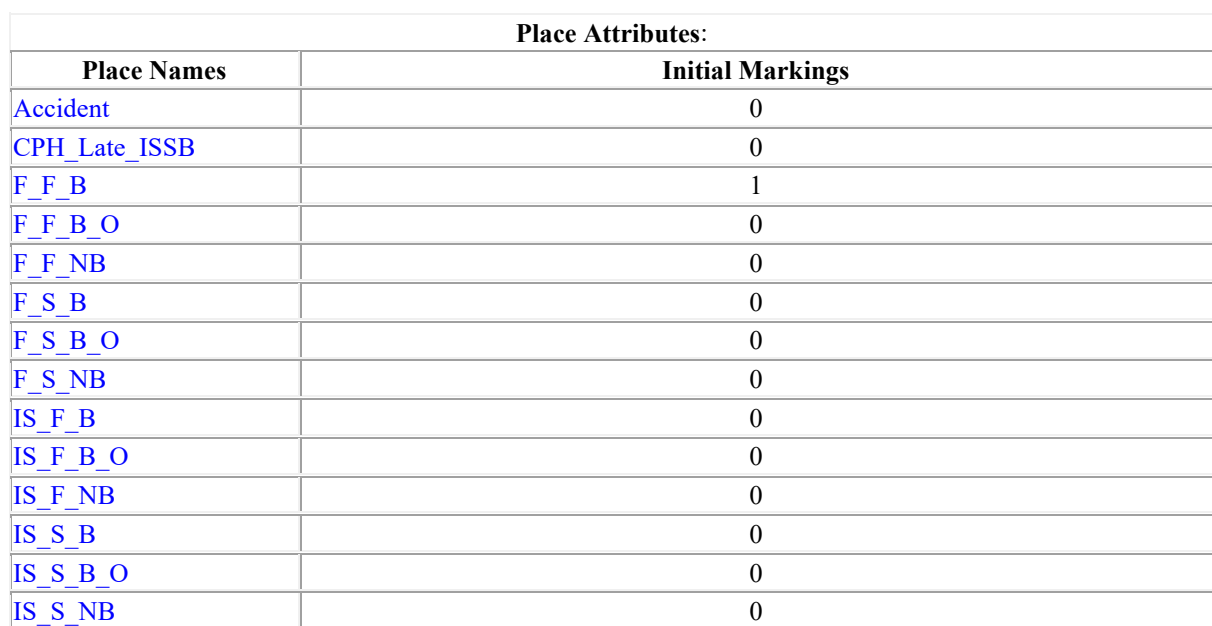
Distribution Parameters	Rate return(rate_IS_F_B2IS_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	sojournTime
Distribution Parameters	Rate return(OH2OKRate_ISFB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(MisHazFailISFB_prob); case 2 return(1.0 - MisHazFailISFB_prob);

Atomic Model: State_IS_F_NB (“Intersection, Fast, Non-Breaking” state)



Place Attributes:	
Place Names	Initial Markings
F_F_B	1
F_F_B_O	0
F_F_NB	0
F_S_B	0
F_S_B_O	0
F_S_NB	0
IS_F_B	0
IS_F_B_O	0
IS_F_NB	0
IS_S_B	0
IS_S_B_O	0
IS_S_NB	0
Timed Activity:	IS_F_NB2F_F_B
Distribution Parameters	Rate return(rate_IS_F_NB2F_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_F_B_O_prob); case 2 return(F_F_B_O_prob);
Timed Activity:	IS_F_NB2F_F_NB
Distribution Parameters	Rate return(rate_IS_F_NB2F_F_NB);

Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_F_NB2F_S_B
Distribution Parameters	Rate return(rate_IS_F_NB2F_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_S_B_O_prob); case 2 return(F_S_B_O_prob);
Timed Activity:	IS_F_NB2F_S_NB
Distribution Parameters	Rate return(rate_IS_F_NB2F_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_F_NB2IS_F_B
Distribution Parameters	Rate return(rate_IS_F_NB2IS_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_F_B_O_prob); case 2 return(1.0 - IS_F_B_O_prob);
Timed Activity:	IS_F_NB2IS_S_B
Distribution Parameters	Rate return(rate_IS_F_NB2IS_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_S_B_O_prob); case 2 return(IS_S_B_O_prob);
Timed Activity:	IS_F_NB2IS_S_NB
Distribution Parameters	Rate return(rate_IS_F_NB2IS_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)

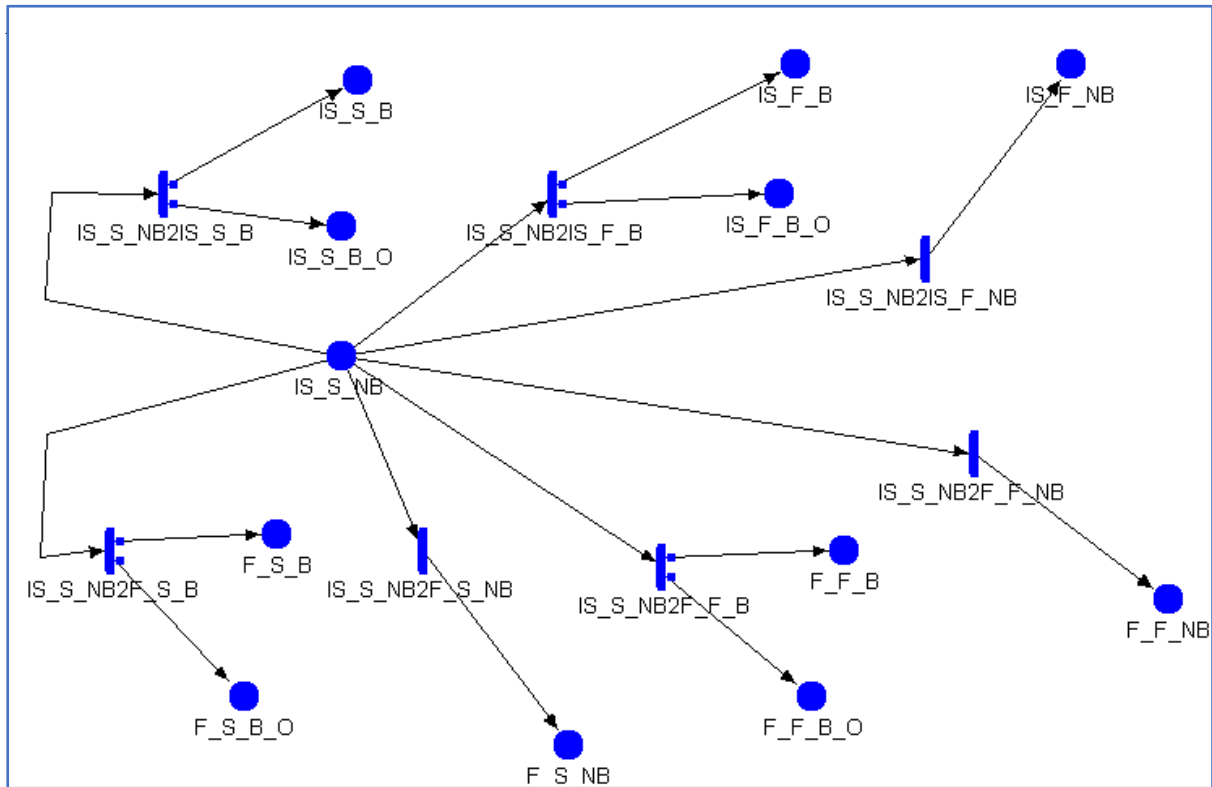


Timed Activity:	CorHaz2Acci_ISSB
Distribution Parameters	Rate $\text{return}((\text{rate_IS_S_B2F_S_B} + \text{rate_IS_S_B2IS_S_NB} + \text{rate_IS_S_B2IS_F_B} + \text{rate_IS_S_B2IS_F_NB} + \text{rate_IS_S_B2F_S_NB} + \text{rate_IS_S_B2F_F_B} + \text{rate_IS_S_B2F_F_NB}) * \text{SafMonFailISSB_prob} / (1.0 - \text{SafMonFailISSB_prob}));$
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLateAcc_ISSB
Distribution Parameters	Rate <pre>double L_rate; L_rate = 0L; if(rate_IS_S_B2F_F_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_S_B2F_F_NB - 1.0/OH2OKRate_ISSB); if(rate_IS_S_B2IS_F_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_S_B2IS_F_NB - 1.0/OH2OKRate_ISSB); if(rate_IS_S_B2IS_F_B > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_S_B2IS_F_B - 1.0/OH2OKRate_ISSB); if(rate_IS_S_B2IS_S_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_S_B2IS_S_NB - 1.0/OH2OKRate_ISSB); if(rate_IS_S_B2F_S_NB > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_S_B2F_S_NB - 1.0/OH2OKRate_ISSB); if(rate_IS_S_B2F_S_B > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_S_B2F_S_B - 1.0/OH2OKRate_ISSB); if(rate_IS_S_B2F_F_B > 0) L_rate = L_rate + 1.0/(1.0/rate_IS_S_B2F_F_B - 1.0/OH2OKRate_ISSB); return(HDLateAcc_ISSB_prob * L_rate / (1.0 - HDLateAcc_ISSB_prob));</pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_F_B
Distribution Parameters	Rate <pre>if(rate_IS_S_B2F_F_B > 0) return(1.0/(1.0/rate_IS_S_B2F_F_B - 1.0/OH2OKRate_ISSB)); else return(0);</pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 $\text{return}(1.0 - \text{F_F_B_O_prob});$ case 2

	return(F_F_B_O_prob);
Timed Activity:	HDLate_F_F_NB
Distribution Parameters	Rate <pre> if(rate_IS_S_B2F_F_NB > 0) return(1.0/(1.0/rate_IS_S_B2F_F_NB - 1.0/OH2OKRate_ISSB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_F_S_B
Distribution Parameters	Rate <pre> if(rate_IS_S_B2F_S_B > 0) return(1.0/(1.0/rate_IS_S_B2F_S_B - 1.0/OH2OKRate_ISSB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <pre> return(1.0 - F_S_B_O_prob); </pre> case 2 <pre> return(F_S_B_O_prob); </pre>
Timed Activity:	HDLate_F_S_NB
Distribution Parameters	Rate <pre> if(rate_IS_S_B2F_S_NB > 0) return(1.0/(1.0/rate_IS_S_B2F_S_NB - 1.0/OH2OKRate_ISSB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_IS_F_NB
Distribution Parameters	Rate <pre> if(rate_IS_S_B2IS_F_NB > 0) return(1.0/(1.0/rate_IS_S_B2IS_F_NB - 1.0/OH2OKRate_ISSB)); else return(0); </pre>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	HDLate_IS_S_NB
Distribution Parameters	Rate <pre> if(rate_IS_S_B2IS_S_NB > 0) return(1.0/(1.0/rate_IS_S_B2IS_S_NB - 1.0/OH2OKRate_ISSB)); else </pre>

	<code>return(0);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_S_B2F_F_B
Distribution Parameters	Rate <code>return(rate_IS_S_B2F_F_B);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <code>return(1.0 - F_F_B_O_prob);</code> case 2 <code>return(F_F_B_O_prob);</code>
Timed Activity:	IS_S_B2F_F_NB
Distribution Parameters	Rate <code>return(rate_IS_S_B2F_F_NB);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_S_B2F_S_B
Distribution Parameters	Rate <code>return(rate_IS_S_B2F_S_B);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <code>return(1.0 - F_S_B_O_prob);</code> case 2 <code>return(F_S_B_O_prob);</code>
Timed Activity:	IS_S_B2F_S_NB
Distribution Parameters	Rate <code>return(rate_IS_S_B2F_S_NB);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_S_B2IS_F_B
Distribution Parameters	Rate <code>return(rate_IS_S_B2IS_F_B);</code>
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 <code>return(1.0 - IS_F_B_O_prob);</code> case 2 <code>return(IS_F_B_O_prob);</code>
Timed Activity:	IS_S_B2IS_F_NB

Distribution Parameters	Rate return(rate_IS_S_B2IS_F_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_S_B2IS_S_NB
Distribution Parameters	Rate return(rate_IS_S_B2IS_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	Timed_Activity1
Distribution Parameters	Rate if(rate_IS_S_B2IS_F_B > 0) return(1.0/(1.0/rate_IS_S_B2IS_F_B - 1.0/OH2OKRate_ISSB)); else return(0);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_F_B_O_prob); case 2 return(IS_F_B_O_prob);
Timed Activity:	sojournTime
Distribution Parameters	Rate return(OH2OKRate_ISSB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(MisHazFailISSB_prob); case 2 return(1.0 - MisHazFailISSB_prob);

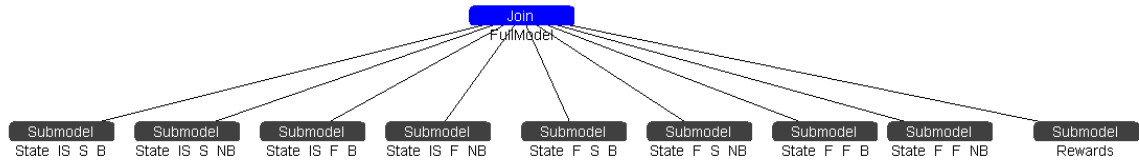


Place Attributes:	
Place Names	Initial Markings
F_F_B	1
F_F_B_O	0
F_F_NB	0
F_S_B	0
F_S_B_O	0
F_S_NB	0
IS_F_B	0
IS_F_B_O	0
IS_F_NB	0
IS_S_B	0
IS_S_B_O	0
IS_S_NB	0
Timed Activity:	IS_S_NB2F_F_B
Distribution Parameters	Rate return(rate_IS_S_NB2F_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_F_B_O_prob); case 2 return(F_F_B_O_prob);
Timed Activity:	IS_S_NB2F_F_NB

Distribution Parameters	Rate return(rate_IS_S_NB2F_F_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_S_NB2F_S_B
Distribution Parameters	Rate return(rate_IS_S_NB2F_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - F_S_B_O_prob); case 2 return(F_S_B_O_prob);
Timed Activity:	IS_S_NB2F_S_NB
Distribution Parameters	Rate return(rate_IS_S_NB2F_S_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_S_NB2IS_F_B
Distribution Parameters	Rate return(rate_IS_S_NB2IS_F_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_F_B_O_prob); case 2 return(IS_F_B_O_prob);
Timed Activity:	IS_S_NB2IS_F_NB
Distribution Parameters	Rate return(rate_IS_S_NB2IS_F_NB);
Activation Predicate	(none)
Reactivation Predicate	(none)
Timed Activity:	IS_S_NB2IS_S_B
Distribution Parameters	Rate return(rate_IS_S_NB2IS_S_B);
Activation Predicate	(none)
Reactivation Predicate	(none)
Case Distributions	case 1 return(1.0 - IS_S_B_O_prob); case 2 return(IS_S_B_O_prob);

Composite Model: System

This model is used to show how the “pieces” fit together. The mechanism used to link the atomic models are the “shared places”, which are listed below.



Join Node: FullModel a:	
State Variable Name	Submodel Variables
Accident_minor	State_IS_S_B->Accident
	State_F_S_B->Accident
	Rewards->Accident_minor
Accident_serious	State_IS_F_B->Accident
	State_F_F_B->Accident
	Rewards->Accident_serious
F_F_B	State_IS_S_B->F_F_B
	State_IS_S_NB->F_F_B
	State_IS_F_B->F_F_B
	State_IS_F_NB->F_F_B
	State_F_S_B->F_F_B
	State_F_S_NB->F_F_B
	State_F_F_B->F_F_B
	State_F_F_NB->F_F_B
F_F_B_O	State_IS_S_B->F_F_B_O
	State_IS_S_NB->F_F_B_O
	State_IS_F_B->F_F_B_O
	State_IS_F_NB->F_F_B_O
	State_F_S_B->F_F_B_O
	State_F_S_NB->F_F_B_O
	State_F_F_B->F_F_B_O
	State_F_F_NB->F_F_B_O
F_F_NB	State_IS_S_B->F_F_NB
	State_IS_S_NB->F_F_NB
	State_IS_F_B->F_F_NB
	State_IS_F_NB->F_F_NB
	State_F_S_B->F_F_NB
	State_F_S_NB->F_F_NB
	State_F_F_B->F_F_NB
	State_F_F_NB->F_F_NB
F_S_B	State_IS_S_B->F_S_B
	State_IS_S_NB->F_S_B
	State_IS_F_B->F_S_B
	State_IS_F_NB->F_S_B
	State_F_S_B->F_S_B
	State_F_S_NB->F_S_B
	State_F_F_B->F_S_B
	State_F_F_NB->F_S_B

	State_F_F_NB->F_S_B
F_S_B_O	State_IS_S_B->F_S_B_O
	State_IS_S_NB->F_S_B_O
	State_IS_F_B->F_S_B_O
	State_IS_F_NB->F_S_B_O
	State_F_S_B->F_S_B_O
	State_F_S_NB->F_S_B_O
	State_F_F_B->F_S_B_O
	State_F_F_NB->F_S_B_O
F_S_NB	State_IS_S_B->F_S_NB
	State_IS_S_NB->F_S_NB
	State_IS_F_B->F_S_NB
	State_IS_F_NB->F_S_NB
	State_F_S_B->F_S_NB
	State_F_S_NB->F_S_NB
	State_F_F_B->F_S_NB
	State_F_F_NB->F_S_NB
IS_F_B	State_IS_S_B->IS_F_B
	State_IS_S_NB->IS_F_B
	State_IS_F_B->IS_F_B
	State_IS_F_NB->IS_F_B
Join Node: FullModel b:	
State Variable Name	Submodel Variables
IS_F_B	State_F_S_B->IS_F_B
	State_F_S_NB->IS_F_B
	State_F_F_B->IS_F_B
	State_F_F_NB->IS_F_B
IS_F_B_O	State_IS_S_B->IS_F_B_O
	State_IS_S_NB->IS_F_B_O
	State_IS_F_B->IS_F_B_O
	State_IS_F_NB->IS_F_B_O
	State_F_S_B->IS_F_B_O
	State_F_S_NB->IS_F_B_O
	State_F_F_B->IS_F_B_O
	State_F_F_NB->IS_F_B_O
IS_F_NB	State_IS_S_B->IS_F_NB
	State_IS_S_NB->IS_F_NB
	State_IS_F_B->IS_F_NB
	State_IS_F_NB->IS_F_NB
	State_F_S_B->IS_F_NB
	State_F_S_NB->IS_F_NB
	State_F_F_B->IS_F_NB
	State_F_F_NB->IS_F_NB
IS_S_B	State_IS_S_B->IS_S_B
	State_IS_S_NB->IS_S_B
	State_IS_F_B->IS_S_B
	State_IS_F_NB->IS_S_B
	State_F_S_B->IS_S_B

	State_F_S_NB->IS_S_B
	State_F_F_B->IS_S_B
	State_F_F_NB->IS_S_B
IS_S_B_O	State_IS_S_B->IS_S_B_O
	State_IS_S_NB->IS_S_B_O
	State_IS_F_B->IS_S_B_O
	State_IS_F_NB->IS_S_B_O
	State_F_S_B->IS_S_B_O
	State_F_S_NB->IS_S_B_O
	State_F_F_B->IS_S_B_O
	State_F_F_NB->IS_S_B_O
IS_S_NB	State_IS_S_B->IS_S_NB
	State_IS_S_NB->IS_S_NB
	State_IS_F_B->IS_S_NB
	State_IS_F_NB->IS_S_NB
	State_F_S_B->IS_S_NB
	State_F_S_NB->IS_S_NB
	State_F_F_B->IS_S_NB
	State_F_F_NB->IS_S_NB

Performance Variable Model: trans_data		
Top Level Model Information	Child Model Name	System
	Model Type	Rep/Join

Performance Variable : TimeToSeriousAccident			
Affecting Models	Rewards		
Impulse Functions			
Reward Function	<i>(Reward is over all Available Models)</i> if (Rewards->Accident_serious->Mark() > 0) return (1); else return (0);		
Simulator Statistics	Type	Instant of Time	
	Options	Estimate Mean	
		Estimate Variance	
		Include Lower Bound on Interval Estimate	
		Include Upper Bound on Interval Estimate	
		Estimate Distribution	
		Estimate out of Range Probabilities	
		Confidence Level is Relative	
	Parameters	Start Time	100.0,1100.0,2100.0,3100.0,4100.0,5100.0,6100.0,7100.0,8100.0,9100.0,
	Distributions	Lower Bound on Distribution Estimate	0.0
		Upper Bound on Distribution Estimate	1.0

		Step Size on Distribution Estimate	0.1
	Confidence	Confidence Level	0.95
		Confidence Interval	0.05
Performance Variable : TimeToMinorAccident			
Affecting Models	Rewards		
Impulse Functions			
Reward Function	(Reward is over all Available Models)		
	if (Rewards->Accident_minor->Mark() > 0) return (1); else return (0);		
Simulator Statistics	Type	Instant of Time	
	Options	Estimate Mean	
		Estimate Variance	
		Include Lower Bound on Interval Estimate	
		Include Upper Bound on Interval Estimate	
		Estimate Distribution	
		Estimate out of Range Probabilities	
		Confidence Level is Relative	
	Parameters	Start Time	100.0,1100.0,2100.0,3100.0,4100.0,5100.0,6100.0,7100.0,8100.0,9100.0,
	Distributions	Lower Bound on Distribution Estimate	0.0
		Upper Bound on Distribution Estimate	1.0
		Step Size on Distribution Estimate	0.1
	Confidence	Confidence Level	0.95
		Confidence Interval	0.05

Set Study: fixed_sta :			
Experiment	Variable	Type	Value
Experiment 1	F_F_B_O_prob	double	0
	F_S_B_O_prob	double	0
	HDLateAcc_FFB_prob	double	0
	HDLateAcc_FSB_prob	double	0
	HDLateAcc_ISFB_prob	double	0
	HDLateAcc_ISSB_prob	double	0
	IS_F_B_O_prob	double	0
	IS_S_B_O_prob	double	0

MisHazFailFFB_prob	double	0
MisHazFailFSB_prob	double	0
MisHazFailISFB_prob	double	0
MisHazFailISSB_prob	double	0
OH2OKRate_FFB	double	4500.0
OH2OKRate_FSB	double	2250.0
OH2OKRate_ISFB	double	2250.0
OH2OKRate_ISSB	double	1225.0
SafMonFailFSB_prob	double	0.0
SafMonFailISFB_prob	double	0.0
SafMonFailISSB_prob	double	0.0
SafMonFail_FFB_prob	double	0.0
rate_F_F_B2F_F_NB	double	609.87
rate_F_F_B2F_S_B	double	676.71
rate_F_F_B2F_S_NB	double	319.02
rate_F_F_B2IS_F_B	double	616.29
rate_F_F_B2IS_F_NB	double	551.1
rate_F_F_B2IS_S_B	double	549.09
rate_F_F_B2IS_S_NB	double	310.79
rate_F_F_NB2F_F_B	double	170.61
rate_F_F_NB2F_S_B	double	252.79
rate_F_F_NB2F_S_NB	double	361.58
rate_F_F_NB2IS_F_B	double	209.77
rate_F_F_NB2IS_F_NB	double	202.345
rate_F_F_NB2IS_S_B	double	361.87
rate_F_F_NB2IS_S_NB	double	273.315
rate_F_S_B2F_F_B	double	1080.0
rate_F_S_B2F_F_NB	double	604.64
rate_F_S_B2F_S_NB	double	465.98
rate_F_S_B2IS_F_B	double	0.0
rate_F_S_B2IS_F_NB	double	439.22
rate_F_S_B2IS_S_B	double	940.01
rate_F_S_B2IS_S_NB	double	438.63
rate_F_S_NB2F_F_B	double	568.63
rate_F_S_NB2F_F_NB	double	223.71
rate_F_S_NB2F_S_B	double	355.8
rate_F_S_NB2IS_F_B	double	0.0
rate_F_S_NB2IS_F_NB	double	264.45
rate_F_S_NB2IS_S_B	double	219.02
rate_F_S_NB2IS_S_NB	double	228.71
rate_IS_F_B2F_F_B	double	986.54
rate_IS_F_B2F_F_NB	double	822.71
rate_IS_F_B2F_S_B	double	728.83
rate_IS_F_B2F_S_NB	double	430.43
rate_IS_F_B2IS_F_NB	double	1680.0
rate_IS_F_B2IS_S_B	double	1164.71
rate_IS_F_B2IS_S_NB	double	0.0
rate_IS_F_NB2F_F_B	double	963.55

	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
Set Study: <u>fixed_stb</u>:			
Experiment	Variable	Type	Value
Experiment 1	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 10	F_F_B_O_prob	double	0.0
	F_S_B_O_prob	double	0.0
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	0.0
	IS_S_B_O_prob	double	0.0
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1

	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
Set Study: fixed_stc :			
Experiment	Variable	Type	Value
Experiment 10	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38

	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 100	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
Set Study: fixed_std :			
Experiment	Variable	Type	Value
Experiment 100	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01

	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 11	F_F_B_O_prob	double	1.0E-6
Set Study: fixed_ste :			
Experiment	Variable	Type	Value
Experiment 11	F_S_B_O_prob	double	0.0
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	0.0
	IS_S_B_O_prob	double	0.0
	MisHazFailFFB_prob	double	0.0

MisHazFailFSB_prob	double	0.0
MisHazFailISFB_prob	double	0.0
MisHazFailISSB_prob	double	0.0
OH2OKRate_FFB	double	4500.0
OH2OKRate_FSB	double	2250.0
OH2OKRate_ISFB	double	2250.0
OH2OKRate_ISSB	double	1225.0
SafMonFailFSB_prob	double	0.0
SafMonFailISFB_prob	double	0.0
SafMonFailISSB_prob	double	0.0
SafMonFail_FFB_prob	double	0.0
rate_F_F_B2F_F_NB	double	609.87
rate_F_F_B2F_S_B	double	676.71
rate_F_F_B2F_S_NB	double	319.02
rate_F_F_B2IS_F_B	double	616.29
rate_F_F_B2IS_F_NB	double	551.1
rate_F_F_B2IS_S_B	double	549.09
rate_F_F_B2IS_S_NB	double	310.79
rate_F_F_NB2F_F_B	double	170.61
rate_F_F_NB2F_S_B	double	252.79
rate_F_F_NB2F_S_NB	double	361.58
rate_F_F_NB2IS_F_B	double	209.77
rate_F_F_NB2IS_F_NB	double	202.345
rate_F_F_NB2IS_S_B	double	361.87
rate_F_F_NB2IS_S_NB	double	273.315
rate_F_S_B2F_F_B	double	1080.0
rate_F_S_B2F_F_NB	double	604.64
rate_F_S_B2F_S_NB	double	465.98
rate_F_S_B2IS_F_B	double	0.0
rate_F_S_B2IS_F_NB	double	439.22
rate_F_S_B2IS_S_B	double	940.01
rate_F_S_B2IS_S_NB	double	438.63
rate_F_S_NB2F_F_B	double	568.63
rate_F_S_NB2F_F_NB	double	223.71
rate_F_S_NB2F_S_B	double	355.8
rate_F_S_NB2IS_F_B	double	0.0
rate_F_S_NB2IS_F_NB	double	264.45
rate_F_S_NB2IS_S_B	double	219.02
rate_F_S_NB2IS_S_NB	double	228.71
rate_IS_F_B2F_F_B	double	986.54
rate_IS_F_B2F_F_NB	double	822.71
rate_IS_F_B2F_S_B	double	728.83
rate_IS_F_B2F_S_NB	double	430.43
rate_IS_F_B2IS_F_NB	double	1680.0
rate_IS_F_B2IS_S_B	double	1164.71
rate_IS_F_B2IS_S_NB	double	0.0
rate_IS_F_NB2F_F_B	double	963.55
rate_IS_F_NB2F_F_NB	double	948.25

	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
Set Study: fixed_stf:			
Experiment	Variable	Type	Value
Experiment 11	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 12	F_F_B_O_prob	double	0.0
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	0.0
	IS_S_B_O_prob	double	0.0
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09

	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	Set Study: fixed_stg :		
Experiment	Variable	Type	Value
Experiment 12	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93

	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 13	F_F_B_O_prob	double	0.0
	F_S_B_O_prob	double	0.0
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	0.0
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
Set Study: fixed_sth :			
Experiment	Variable	Type	Value
Experiment 13	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63

	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 14	F_F_B_O_prob	double	0.0
	F_S_B_O_prob	double	0.0
Set Study: fixed_sti :			
Experiment	Variable	Type	Value
Experiment 14	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	0.0
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0

MisHazFailISFB_prob	double	0.0
MisHazFailISSB_prob	double	0.0
OH2OKRate_FFB	double	4500.0
OH2OKRate_FSB	double	2250.0
OH2OKRate_ISFB	double	2250.0
OH2OKRate_ISSB	double	1225.0
SafMonFailFSB_prob	double	0.0
SafMonFailISFB_prob	double	0.0
SafMonFailISSB_prob	double	0.0
SafMonFail_FFB_prob	double	0.0
rate_F_F_B2F_F_NB	double	609.87
rate_F_F_B2F_S_B	double	676.71
rate_F_F_B2F_S_NB	double	319.02
rate_F_F_B2IS_F_B	double	616.29
rate_F_F_B2IS_F_NB	double	551.1
rate_F_F_B2IS_S_B	double	549.09
rate_F_F_B2IS_S_NB	double	310.79
rate_F_F_NB2F_F_B	double	170.61
rate_F_F_NB2F_S_B	double	252.79
rate_F_F_NB2F_S_NB	double	361.58
rate_F_F_NB2IS_F_B	double	209.77
rate_F_F_NB2IS_F_NB	double	202.345
rate_F_F_NB2IS_S_B	double	361.87
rate_F_F_NB2IS_S_NB	double	273.315
rate_F_S_B2F_F_B	double	1080.0
rate_F_S_B2F_F_NB	double	604.64
rate_F_S_B2F_S_NB	double	465.98
rate_F_S_B2IS_F_B	double	0.0
rate_F_S_B2IS_F_NB	double	439.22
rate_F_S_B2IS_S_B	double	940.01
rate_F_S_B2IS_S_NB	double	438.63
rate_F_S_NB2F_F_B	double	568.63
rate_F_S_NB2F_F_NB	double	223.71
rate_F_S_NB2F_S_B	double	355.8
rate_F_S_NB2IS_F_B	double	0.0
rate_F_S_NB2IS_F_NB	double	264.45
rate_F_S_NB2IS_S_B	double	219.02
rate_F_S_NB2IS_S_NB	double	228.71
rate_IS_F_B2F_F_B	double	986.54
rate_IS_F_B2F_F_NB	double	822.71
rate_IS_F_B2F_S_B	double	728.83
rate_IS_F_B2F_S_NB	double	430.43
rate_IS_F_B2IS_F_NB	double	1680.0
rate_IS_F_B2IS_S_B	double	1164.71
rate_IS_F_B2IS_S_NB	double	0.0
rate_IS_F_NB2F_F_B	double	963.55
rate_IS_F_NB2F_F_NB	double	948.25
rate_IS_F_NB2F_S_B	double	560.88

	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
Set Study: fixed_stj:			
Experiment	Variable	Type	Value
Experiment 14	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 2	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	1.0E-5
	MisHazFailFSB_prob	double	1.0E-5
	MisHazFailISFB_prob	double	1.0E-5
	MisHazFailISSB_prob	double	1.0E-5
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79

	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63
Set Study: fixed_stk :			
Experiment	Variable	Type	Value
Experiment 2	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69

	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 6	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	1.0E-6
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
Set Study: fixed_stl :			
Experiment	Variable	Type	Value
Experiment 6	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63

	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 60	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
Set Study: fixed_stm :			
Experiment	Variable	Type	Value
Experiment 60	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	1.0E-5
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0

MisHazFailISSB_prob	double	0.0
OH2OKRate_FFB	double	4500.0
OH2OKRate_FSB	double	2250.0
OH2OKRate_ISFB	double	2250.0
OH2OKRate_ISSB	double	1225.0
SafMonFailFSB_prob	double	1.0E-6
SafMonFailISFB_prob	double	0.0
SafMonFailISSB_prob	double	0.0
SafMonFail_FFB_prob	double	0.0
rate_F_F_B2F_F_NB	double	609.87
rate_F_F_B2F_S_B	double	676.71
rate_F_F_B2F_S_NB	double	319.02
rate_F_F_B2IS_F_B	double	616.29
rate_F_F_B2IS_F_NB	double	551.1
rate_F_F_B2IS_S_B	double	549.09
rate_F_F_B2IS_S_NB	double	310.79
rate_F_F_NB2F_F_B	double	170.61
rate_F_F_NB2F_S_B	double	252.79
rate_F_F_NB2F_S_NB	double	361.58
rate_F_F_NB2IS_F_B	double	209.77
rate_F_F_NB2IS_F_NB	double	202.345
rate_F_F_NB2IS_S_B	double	361.87
rate_F_F_NB2IS_S_NB	double	273.315
rate_F_S_B2F_F_B	double	1080.0
rate_F_S_B2F_F_NB	double	604.64
rate_F_S_B2F_S_NB	double	465.98
rate_F_S_B2IS_F_B	double	0.0
rate_F_S_B2IS_F_NB	double	439.22
rate_F_S_B2IS_S_B	double	940.01
rate_F_S_B2IS_S_NB	double	438.63
rate_F_S_NB2F_F_B	double	568.63
rate_F_S_NB2F_F_NB	double	223.71
rate_F_S_NB2F_S_B	double	355.8
rate_F_S_NB2IS_F_B	double	0.0
rate_F_S_NB2IS_F_NB	double	264.45
rate_F_S_NB2IS_S_B	double	219.02
rate_F_S_NB2IS_S_NB	double	228.71
rate_IS_F_B2F_F_B	double	986.54
rate_IS_F_B2F_F_NB	double	822.71
rate_IS_F_B2F_S_B	double	728.83
rate_IS_F_B2F_S_NB	double	430.43
rate_IS_F_B2IS_F_NB	double	1680.0
rate_IS_F_B2IS_S_B	double	1164.71
rate_IS_F_B2IS_S_NB	double	0.0
rate_IS_F_NB2F_F_B	double	963.55
rate_IS_F_NB2F_F_NB	double	948.25
rate_IS_F_NB2F_S_B	double	560.88
rate_IS_F_NB2F_S_NB	double	918.64

	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
Set Study: <u>fixed</u> _stn:			
Experiment	Variable	Type	Value
Experiment 60	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 7	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	1.0E-6
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61

	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63
Set Study: fixed_sto :			
Experiment	Variable	Type	Value
Experiment 7	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0

	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 70	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	1.0E-5
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	1.0E-6
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
Set Study: fixed_stp :			
Experiment	Variable	Type	Value
Experiment 70	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71

	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 8	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
Set Study: fixed_stq :			
Experiment	Variable	Type	Value
Experiment 8	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0

OH2OKRate_FFB	double	4500.0
OH2OKRate_FSB	double	2250.0
OH2OKRate_ISFB	double	2250.0
OH2OKRate_ISSB	double	1225.0
SafMonFailFSB_prob	double	0.0
SafMonFailISFB_prob	double	0.0
SafMonFailISSB_prob	double	1.0E-6
SafMonFail_FFB_prob	double	0.0
rate_F_F_B2F_F_NB	double	609.87
rate_F_F_B2F_S_B	double	676.71
rate_F_F_B2F_S_NB	double	319.02
rate_F_F_B2IS_F_B	double	616.29
rate_F_F_B2IS_F_NB	double	551.1
rate_F_F_B2IS_S_B	double	549.09
rate_F_F_B2IS_S_NB	double	310.79
rate_F_F_NB2F_F_B	double	170.61
rate_F_F_NB2F_S_B	double	252.79
rate_F_F_NB2F_S_NB	double	361.58
rate_F_F_NB2IS_F_B	double	209.77
rate_F_F_NB2IS_F_NB	double	202.345
rate_F_F_NB2IS_S_B	double	361.87
rate_F_F_NB2IS_S_NB	double	273.315
rate_F_S_B2F_F_B	double	1080.0
rate_F_S_B2F_F_NB	double	604.64
rate_F_S_B2F_S_NB	double	465.98
rate_F_S_B2IS_F_B	double	0.0
rate_F_S_B2IS_F_NB	double	439.22
rate_F_S_B2IS_S_B	double	940.01
rate_F_S_B2IS_S_NB	double	438.63
rate_F_S_NB2F_F_B	double	568.63
rate_F_S_NB2F_F_NB	double	223.71
rate_F_S_NB2F_S_B	double	355.8
rate_F_S_NB2IS_F_B	double	0.0
rate_F_S_NB2IS_F_NB	double	264.45
rate_F_S_NB2IS_S_B	double	219.02
rate_F_S_NB2IS_S_NB	double	228.71
rate_IS_F_B2F_F_B	double	986.54
rate_IS_F_B2F_F_NB	double	822.71
rate_IS_F_B2F_S_B	double	728.83
rate_IS_F_B2F_S_NB	double	430.43
rate_IS_F_B2IS_F_NB	double	1680.0
rate_IS_F_B2IS_S_B	double	1164.71
rate_IS_F_B2IS_S_NB	double	0.0
rate_IS_F_NB2F_F_B	double	963.55
rate_IS_F_NB2F_F_NB	double	948.25
rate_IS_F_NB2F_S_B	double	560.88
rate_IS_F_NB2F_S_NB	double	918.64
rate_IS_F_NB2IS_F_B	double	1800.0

	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
Set Study: fixed_str:			
Experiment	Variable	Type	Value
Experiment 8	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 80	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	1.0E-5
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	1.0E-6
	SafMonFail_FFB_prob	double	0.0
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79

	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71
Set Study: fixed_sts :			
Experiment	Variable	Type	Value
Experiment 80	rate_F_S_NB2F_S_B	double	355.8
	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65

	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 9	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	0.0
	OH2OKRate_FFB	double	4500.0
	OH2OKRate_FSB	double	2250.0
	OH2OKRate_ISFB	double	2250.0
	OH2OKRate_ISSB	double	1225.0
	SafMonFailFSB_prob	double	0.0
	SafMonFailISFB_prob	double	0.0
	SafMonFailISSB_prob	double	0.0
	SafMonFail_FFB_prob	double	1.0E-6
	rate_F_F_B2F_F_NB	double	609.87
	rate_F_F_B2F_S_B	double	676.71
	rate_F_F_B2F_S_NB	double	319.02
	rate_F_F_B2IS_F_B	double	616.29
Set Study: fixed_stt :			
Experiment	Variable	Type	Value
Experiment 9	rate_F_F_B2IS_F_NB	double	551.1
	rate_F_F_B2IS_S_B	double	549.09
	rate_F_F_B2IS_S_NB	double	310.79
	rate_F_F_NB2F_F_B	double	170.61
	rate_F_F_NB2F_S_B	double	252.79
	rate_F_F_NB2F_S_NB	double	361.58
	rate_F_F_NB2IS_F_B	double	209.77
	rate_F_F_NB2IS_F_NB	double	202.345
	rate_F_F_NB2IS_S_B	double	361.87
	rate_F_F_NB2IS_S_NB	double	273.315
	rate_F_S_B2F_F_B	double	1080.0
	rate_F_S_B2F_F_NB	double	604.64
	rate_F_S_B2F_S_NB	double	465.98
	rate_F_S_B2IS_F_B	double	0.0
	rate_F_S_B2IS_F_NB	double	439.22
	rate_F_S_B2IS_S_B	double	940.01
	rate_F_S_B2IS_S_NB	double	438.63
	rate_F_S_NB2F_F_B	double	568.63
	rate_F_S_NB2F_F_NB	double	223.71
	rate_F_S_NB2F_S_B	double	355.8

	rate_F_S_NB2IS_F_B	double	0.0
	rate_F_S_NB2IS_F_NB	double	264.45
	rate_F_S_NB2IS_S_B	double	219.02
	rate_F_S_NB2IS_S_NB	double	228.71
	rate_IS_F_B2F_F_B	double	986.54
	rate_IS_F_B2F_F_NB	double	822.71
	rate_IS_F_B2F_S_B	double	728.83
	rate_IS_F_B2F_S_NB	double	430.43
	rate_IS_F_B2IS_F_NB	double	1680.0
	rate_IS_F_B2IS_S_B	double	1164.71
	rate_IS_F_B2IS_S_NB	double	0.0
	rate_IS_F_NB2F_F_B	double	963.55
	rate_IS_F_NB2F_F_NB	double	948.25
	rate_IS_F_NB2F_S_B	double	560.88
	rate_IS_F_NB2F_S_NB	double	918.64
	rate_IS_F_NB2IS_F_B	double	1800.0
	rate_IS_F_NB2IS_S_B	double	936.29
	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59
Experiment 90	F_F_B_O_prob	double	1.0E-6
	F_S_B_O_prob	double	1.0E-6
	HDLateAcc_FFB_prob	double	1.0E-6
	HDLateAcc_FSB_prob	double	1.0E-6
	HDLateAcc_ISFB_prob	double	1.0E-6
Set Study: fixed_stu :			
Experiment	Variable	Type	Value
Experiment 90	HDLateAcc_ISSB_prob	double	1.0E-6
	IS_F_B_O_prob	double	1.0E-6
	IS_S_B_O_prob	double	1.0E-6
	MisHazFailFFB_prob	double	0.0
	MisHazFailFSB_prob	double	0.0
	MisHazFailISFB_prob	double	0.0
	MisHazFailISSB_prob	double	1.0E-5
	OH2OKRate_FFB	double	4500.0

OH2OKRate_FSB	double	2250.0
OH2OKRate_ISFB	double	2250.0
OH2OKRate_ISSB	double	1225.0
SafMonFailFSB_prob	double	0.0
SafMonFailISFB_prob	double	0.0
SafMonFailISSB_prob	double	0.0
SafMonFail_FFB_prob	double	1.0E-6
rate_F_F_B2F_F_NB	double	609.87
rate_F_F_B2F_S_B	double	676.71
rate_F_F_B2F_S_NB	double	319.02
rate_F_F_B2IS_F_B	double	616.29
rate_F_F_B2IS_F_NB	double	551.1
rate_F_F_B2IS_S_B	double	549.09
rate_F_F_B2IS_S_NB	double	310.79
rate_F_F_NB2F_F_B	double	170.61
rate_F_F_NB2F_S_B	double	252.79
rate_F_F_NB2F_S_NB	double	361.58
rate_F_F_NB2IS_F_B	double	209.77
rate_F_F_NB2IS_F_NB	double	202.345
rate_F_F_NB2IS_S_B	double	361.87
rate_F_F_NB2IS_S_NB	double	273.315
rate_F_S_B2F_F_B	double	1080.0
rate_F_S_B2F_F_NB	double	604.64
rate_F_S_B2F_S_NB	double	465.98
rate_F_S_B2IS_F_B	double	0.0
rate_F_S_B2IS_F_NB	double	439.22
rate_F_S_B2IS_S_B	double	940.01
rate_F_S_B2IS_S_NB	double	438.63
rate_F_S_NB2F_F_B	double	568.63
rate_F_S_NB2F_F_NB	double	223.71
rate_F_S_NB2F_S_B	double	355.8
rate_F_S_NB2IS_F_B	double	0.0
rate_F_S_NB2IS_F_NB	double	264.45
rate_F_S_NB2IS_S_B	double	219.02
rate_F_S_NB2IS_S_NB	double	228.71
rate_IS_F_B2F_F_B	double	986.54
rate_IS_F_B2F_F_NB	double	822.71
rate_IS_F_B2F_S_B	double	728.83
rate_IS_F_B2F_S_NB	double	430.43
rate_IS_F_B2IS_F_NB	double	1680.0
rate_IS_F_B2IS_S_B	double	1164.71
rate_IS_F_B2IS_S_NB	double	0.0
rate_IS_F_NB2F_F_B	double	963.55
rate_IS_F_NB2F_F_NB	double	948.25
rate_IS_F_NB2F_S_B	double	560.88
rate_IS_F_NB2F_S_NB	double	918.64
rate_IS_F_NB2IS_F_B	double	1800.0
rate_IS_F_NB2IS_S_B	double	936.29

	rate_IS_F_NB2IS_S_NB	double	1109.88
	rate_IS_S_B2F_F_B	double	0.0
Set Study: fixed <u>stv</u> :			
Experiment	Variable	Type	Value
Experiment 90	rate_IS_S_B2F_F_NB	double	573.8
	rate_IS_S_B2F_S_B	double	848.17
	rate_IS_S_B2F_S_NB	double	511.62
	rate_IS_S_B2IS_F_B	double	0.0
	rate_IS_S_B2IS_F_NB	double	743.98
	rate_IS_S_B2IS_S_NB	double	645.875
	rate_IS_S_NB2F_F_B	double	0.0
	rate_IS_S_NB2F_F_NB	double	207.38
	rate_IS_S_NB2F_S_B	double	328.93
	rate_IS_S_NB2F_S_NB	double	324.69
	rate_IS_S_NB2IS_F_B	double	0.0
	rate_IS_S_NB2IS_F_NB	double	678.65
	rate_IS_S_NB2IS_S_B	double	601.59

Appendix 1 (Experiment 1)

Mobius trs Version 2.4,
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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 02:50:59 2022

Project name: AV_Intersection_with_Motorway_v2
Study name: fixed_st
State space name: sspg_fx
Experiment name: Experiment_1

Global variable settings for this experiment:

F_F_B_O_prob = 0
F_S_B_O_prob = 0
HDLateAcc_FFB_prob = 0
HDLateAcc_FSB_prob = 0
HDLateAcc_ISFB_prob = 0
HDLateAcc_ISSB_prob = 0
IS_F_B_O_prob = 0
IS_S_B_O_prob = 0
MisHazFailFFB_prob = 0
MisHazFailFSB_prob = 0
MisHazFailISFB_prob = 0
MisHazFailISSB_prob = 0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83

```

rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0
rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 99.688000
User Time (seconds): 99.688000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.443538
Number of states in process: 10
Number of states with reward: 0
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187689	1206170	1.000000e-009
1100.000000	13123403	13184687	1.000000e-009
2100.000000	25067158	25151832	1.000000e-009
3100.000000	37013062	37115939	1.000000e-009
4100.000000	48960112	49078423	1.000000e-009
5100.000000	60907905	61039858	1.000000e-009
6100.000000	72856230	73000540	1.000000e-009
7100.000000	84804960	84960650	1.000000e-009
8100.000000	96754012	96920304	1.000000e-009
9100.000000	108703327	108879586	1.000000e-009

```

Performance variable : TimeToSeriousAccident
Time      : 100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf)      : Experiment_1.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

Performance variable : TimeToMinorAccident
Time      : 100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf)      : Experiment_1.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

Performance variable : TimeToSeriousAccident
Time      : 1100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.1100.000.pdf.splot

```

```
(cdf) : Experiment_1.trs.TimeToSeriousAccident.1100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 1100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToMinorAccident.1100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 2100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToSeriousAccident.2100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 2100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToMinorAccident.2100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 3100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToSeriousAccident.3100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 3100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToMinorAccident.3100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 4100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToSeriousAccident.4100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 4100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToMinorAccident.4100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 5100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToSeriousAccident.5100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 5100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToMinorAccident.5100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 6100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_1.trs.TimeToSeriousAccident.6100.000.cdf.splot
```

```
*****
Performance variable : TimeToMinorAccident
Time      : 6100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.6100.000.pdf.splot
              (cdf) : Experiment_1.trs.TimeToMinorAccident.6100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 7100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.7100.000.pdf.splot
              (cdf) : Experiment_1.trs.TimeToSeriousAccident.7100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 7100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.7100.000.pdf.splot
              (cdf) : Experiment_1.trs.TimeToMinorAccident.7100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 8100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.8100.000.pdf.splot
              (cdf) : Experiment_1.trs.TimeToSeriousAccident.8100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 8100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.8100.000.pdf.splot
              (cdf) : Experiment_1.trs.TimeToMinorAccident.8100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 9100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToSeriousAccident.9100.000.pdf.splot
              (cdf) : Experiment_1.trs.TimeToSeriousAccident.9100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 9100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_1.trs.TimeToMinorAccident.9100.000.pdf.splot
              (cdf) : Experiment_1.trs.TimeToMinorAccident.9100.000.cdf.splot
*****
Finished: Thu Sep 15 02:52:38 2022
```

Appendix 2 (Experiment 10)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:03:14 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_2

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 1.0E-5
MisHazFailFSB_prob = 1.0E-5
MisHazFailISFB_prob = 1.0E-5
MisHazFailISSB_prob = 1.0E-5
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 153.318000
User Time (seconds): 153.318000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 6.355838e-002
Variance  : 5.951872e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 9.268388e-007
Variance  : 9.268380e-007
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 5.143892e-001
Variance  : 2.497930e-001
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 7.501070e-006
Variance : 7.501014e-006
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 7.481733e-001
Variance : 1.884100e-001
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 1.091022e-005
Variance : 1.091010e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 8.694050e-001
Variance : 1.135399e-001
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 1.267808e-005
Variance : 1.267792e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 9.322713e-001
Variance : 6.314153e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 1.359483e-005
Variance : 1.359464e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 9.648714e-001
Variance : 3.389459e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 1.407022e-005
Variance : 1.407002e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 9.817766e-001
Variance : 1.789132e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 1.431674e-005
Variance : 1.431653e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 9.905430e-001
Variance : 9.367567e-003
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 1.444457e-005
Variance : 1.444436e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 9.950889e-001
Variance : 4.886951e-003
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 1.451086e-005
Variance : 1.451065e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 9.974463e-001
Variance : 2.547197e-003
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 1.454524e-005
Variance : 1.454503e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:05:48 2022

Appendix 3 (Experiment 100)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 02:54:11 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_100

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_NB2IS_S_B = 1164.71
rate_IS_F_NB2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 743.98
rate_IS_S_NB2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 152.402000
User Time (seconds): 152.402000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 6.734184e-003
Variance  : 6.688834e-003
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 8.675596e-008
Variance  : 8.675595e-008
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 7.163186e-002
Variance  : 6.650074e-002
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 9.228280e-007
Variance : 9.228272e-007
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 1.322892e-001
Variance : 1.147888e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 1.704272e-006
Variance : 1.704269e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.889833e-001
Variance : 1.532686e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 2.434658e-006
Variance : 2.434652e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 2.419731e-001
Variance : 1.834221e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 3.117322e-006
Variance : 3.117312e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 2.915006e-001
Variance : 2.065280e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 3.755381e-006
Variance : 3.755367e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 3.377921e-001
Variance : 2.236886e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 4.351751e-006
Variance : 4.351732e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 3.810589e-001
Variance : 2.358530e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 4.909154e-006
Variance : 4.909130e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 4.214988e-001
Variance : 2.438376e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 5.430138e-006
Variance : 5.430109e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 4.592963e-001
Variance : 2.483432e-001
Plot files (pdf) : Experiment_100.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 5.917081e-006
Variance : 5.917046e-006
Plot files (pdf) : Experiment_100.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_100.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 02:56:44 2022

Appendix 4 (Experiment 11)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 02:56:44 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_11

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 0.0
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 0.0
IS_S_B_O_prob = 0.0
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 97.035000
User Time (seconds): 97.035000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 13
Number of states with reward: 1
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 6.734175e-003
Variance  : 6.68826e-003
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.100.000.cdf.splot

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.100.000.cdf.splot

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 7.163181e-002
Variance  : 6.650069e-002
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 1.322892e-001
Variance : 1.147888e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.889833e-001
Variance : 1.532686e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 2.419732e-001
Variance : 1.834222e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 2.915009e-001
Variance : 2.065281e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 3.377926e-001
Variance : 2.236887e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

```
Time      : 6100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.6100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 7100.000000
Mean      : 3.810596e-001
Variance  : 2.358532e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.7100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 7100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.7100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 8100.000000
Mean      : 4.214997e-001
Variance  : 2.438377e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.8100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 8100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.8100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 9100.000000
Mean      : 4.592976e-001
Variance  : 2.483433e-001
Plot files (pdf) : Experiment_11.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToSeriousAccident.9100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 9100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_11.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_11.trs.TimeToMinorAccident.9100.000.cdf.splot
*****
Finished: Thu Sep 15 02:58:21 2022
```

Appendix 5 (Experiment 12)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 02:58:22 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_12

Global variable settings for this experiment:

F_F_B_O_prob = 0.0
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 0.0
IS_S_B_O_prob = 0.0
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 101.769000
User Time (seconds): 101.769000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 14
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 6.734141e-003
Variance  : 6.688792e-003
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 4.090461e-008
Variance  : 4.090461e-008
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 7.163143e-002
Variance  : 6.650037e-002
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 4.351040e-007
Variance : 4.351038e-007
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 1.322885e-001
Variance : 1.147882e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 8.035473e-007
Variance : 8.035466e-007
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.889824e-001
Variance : 1.532680e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 1.147917e-006
Variance : 1.147916e-006
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 2.419720e-001
Variance : 1.834215e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 1.469787e-006
Variance : 1.469785e-006
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 2.914994e-001
Variance : 2.065275e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 1.770627e-006
Variance : 1.770623e-006
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 3.377908e-001
Variance : 2.236882e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 2.051810e-006
Variance : 2.051806e-006
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 3.810576e-001
Variance : 2.358527e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 2.314621e-006
Variance : 2.314616e-006
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 4.214975e-001
Variance : 2.438373e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 2.560261e-006
Variance : 2.560255e-006
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 4.592951e-001
Variance : 2.483431e-001
Plot files (pdf) : Experiment_12.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 2.789852e-006
Variance : 2.789844e-006
Plot files (pdf) : Experiment_12.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_12.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:00:03 2022

Appendix 6 (Experiment 13)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:00:04 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_13

Global variable settings for this experiment:

F_F_B_O_prob = 0.0
F_S_B_O_prob = 0.0
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 0.0
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 88.561000
User Time (seconds): 88.561000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 11
Number of states with reward: 1
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 6.734153e-003
Variance  : 6.68805e-003
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 7.163158e-002
Variance  : 6.650050e-002
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 1.322888e-001
Variance : 1.147885e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.889828e-001
Variance : 1.532683e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 2.419726e-001
Variance : 1.834218e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 2.915001e-001
Variance : 2.065278e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 0.000000e+000
Variance : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 3.377917e-001
Variance : 2.236885e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

```
Time      : 6100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.6100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 7100.000000
Mean      : 3.810586e-001
Variance  : 2.358530e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.7100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 7100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.7100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 8100.000000
Mean      : 4.214987e-001
Variance  : 2.438375e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.8100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 8100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.8100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 9100.000000
Mean      : 4.592965e-001
Variance  : 2.483432e-001
Plot files (pdf) : Experiment_13.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToSeriousAccident.9100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 9100.000000
Mean      : 0.000000e+000
Variance  : 0.000000e+000
Plot files (pdf) : Experiment_13.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_13.trs.TimeToMinorAccident.9100.000.cdf.splot
*****
Finished: Thu Sep 15 03:01:32 2022
```

Appendix 7 (Experiment 14)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:01:33 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_14

Global variable settings for this experiment:

F_F_B_O_prob = 0.0
F_S_B_O_prob = 0.0
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 0.0
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 101.187000
User Time (seconds): 101.187000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 14
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****
Performance variable : TimeToSeriousAccident
Time      : 100.000000
Mean      : 6.734140e-003
Variance  : 6.688791e-003
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.100.000.pdf.splot
              (cdf) : Experiment_14.trs.TimeToSeriousAccident.100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 100.000000
Mean      : 4.585138e-008
Variance  : 4.585137e-008
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.100.000.pdf.splot
              (cdf) : Experiment_14.trs.TimeToMinorAccident.100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 1100.000000
Mean      : 7.163142e-002
Variance  : 6.650036e-002
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.1100.000.pdf.splot
              (cdf) : Experiment_14.trs.TimeToSeriousAccident.1100.000.cdf.splot
*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 4.877247e-007
Variance : 4.877245e-007
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 1.322885e-001
Variance : 1.147882e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 9.007271e-007
Variance : 9.007263e-007
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.889823e-001
Variance : 1.532680e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 1.286745e-006
Variance : 1.286743e-006
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 2.419719e-001
Variance : 1.834215e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 1.647541e-006
Variance : 1.647538e-006
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 2.914993e-001
Variance : 2.065275e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 1.984764e-006
Variance : 1.984760e-006
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 3.377907e-001
Variance : 2.236881e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 2.299953e-006
Variance : 2.299948e-006
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 3.810575e-001
Variance : 2.358527e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 2.594548e-006
Variance : 2.594542e-006
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 4.214973e-001
Variance : 2.438373e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 2.869896e-006
Variance : 2.869887e-006
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 4.592949e-001
Variance : 2.483431e-001
Plot files (pdf) : Experiment_14.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 3.127252e-006
Variance : 3.127243e-006
Plot files (pdf) : Experiment_14.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_14.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:03:14 2022

Appendix 8 (Experiment 2)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:03:14 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_2

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 1.0E-5
MisHazFailFSB_prob = 1.0E-5
MisHazFailISFB_prob = 1.0E-5
MisHazFailISSB_prob = 1.0E-5
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 153.318000
User Time (seconds): 153.318000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

```

Performance variable : TimeToSeriousAccident
Time      : 100.000000
Mean      : 6.355838e-002
Variance  : 5.951872e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.100.000.cdf.splot
*****

```

```

Performance variable : TimeToMinorAccident
Time      : 100.000000
Mean      : 9.268388e-007
Variance  : 9.268380e-007
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.100.000.cdf.splot
*****

```

```

Performance variable : TimeToSeriousAccident
Time      : 1100.000000
Mean      : 5.143892e-001
Variance  : 2.497930e-001
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.1100.000.cdf.splot
*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 7.501070e-006
Variance : 7.501014e-006
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 7.481733e-001
Variance : 1.884100e-001
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 1.091022e-005
Variance : 1.091010e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 8.694050e-001
Variance : 1.135399e-001
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 1.267808e-005
Variance : 1.267792e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 9.322713e-001
Variance : 6.314153e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 1.359483e-005
Variance : 1.359464e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 9.648714e-001
Variance : 3.389459e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 1.407022e-005
Variance : 1.407002e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 9.817766e-001
Variance : 1.789132e-002
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 1.431674e-005
Variance : 1.431653e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 9.905430e-001
Variance : 9.367567e-003
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 1.444457e-005
Variance : 1.444436e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 9.950889e-001
Variance : 4.886951e-003
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 1.451086e-005
Variance : 1.451065e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 9.974463e-001
Variance : 2.547197e-003
Plot files (pdf) : Experiment_2.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 1.454524e-005
Variance : 1.454503e-005
Plot files (pdf) : Experiment_2.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_2.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:05:48 2022

Appendix 9 (Experiment 6)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:05:48 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_6

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 1.0E-6
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 161.737000
User Time (seconds): 161.737000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 6.597993e-003
Variance  : 6.554460e-003
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.100.000.cdf.splot

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 4.008343e-002
Variance  : 3.847675e-002
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.100.000.cdf.splot

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 5.780272e-002
Variance  : 5.446156e-002
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 3.511553e-001
Variance : 2.278452e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 8.954881e-002
Variance : 8.152982e-002
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 5.440147e-001
Variance : 2.480627e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.092309e-001
Variance : 9.729949e-002
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 6.635845e-001
Variance : 2.232401e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 1.214334e-001
Variance : 1.066874e-001
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 7.377158e-001
Variance : 1.934912e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 1.289988e-001
Variance : 1.123581e-001
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 7.836760e-001
Variance : 1.695279e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 1.336892e-001
Variance : 1.158164e-001
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

```
Time      : 6100.000000
Mean      : 8.121706e-001
Variance  : 1.525495e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.6100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 7100.000000
Mean      : 1.365972e-001
Variance  : 1.179384e-001
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.7100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 7100.000000
Mean      : 8.298367e-001
Variance  : 1.412077e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.7100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 8100.000000
Mean      : 1.384001e-001
Variance  : 1.192455e-001
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.8100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 8100.000000
Mean      : 8.407895e-001
Variance  : 1.338625e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.8100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 9100.000000
Mean      : 1.395179e-001
Variance  : 1.200527e-001
Plot files (pdf) : Experiment_6.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToSeriousAccident.9100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 9100.000000
Mean      : 8.475800e-001
Variance  : 1.291882e-001
Plot files (pdf) : Experiment_6.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_6.trs.TimeToMinorAccident.9100.000.cdf.splot
*****
Finished: Thu Sep 15 03:08:30 2022
```

Appendix 10 (Experiment 60)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:08:30 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_60

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 1.0E-5
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 1.0E-6
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 175.755000
User Time (seconds): 175.755000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****
Performance variable : TimeToSeriousAccident
Time      : 100.000000
Mean      : 6.598325e-003
Variance  : 6.554787e-003
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf)      : Experiment_60.trs.TimeToSeriousAccident.100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 100.000000
Mean      : 4.008342e-002
Variance  : 3.847674e-002
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf)      : Experiment_60.trs.TimeToMinorAccident.100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 1100.000000
Mean      : 5.780554e-002
Variance  : 5.446406e-002
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf)      : Experiment_60.trs.TimeToSeriousAccident.1100.000.cdf.splot
*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 3.511547e-001
Variance : 2.278451e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 8.955307e-002
Variance : 8.153331e-002
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 5.440131e-001
Variance : 2.480628e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.092360e-001
Variance : 9.730346e-002
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 6.635818e-001
Variance : 2.232410e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 1.214390e-001
Variance : 1.066916e-001
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 7.377122e-001
Variance : 1.934929e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 1.290046e-001
Variance : 1.123624e-001
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 7.836717e-001
Variance : 1.695304e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 1.336952e-001
Variance : 1.158208e-001
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

```
Time      : 6100.000000
Mean      : 8.121657e-001
Variance  : 1.525526e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.6100.000.cdf.splot
*****

Performance variable : TimeToSeriousAccident
Time      : 7100.000000
Mean      : 1.366033e-001
Variance  : 1.179428e-001
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.7100.000.cdf.splot
*****

Performance variable : TimeToMinorAccident
Time      : 7100.000000
Mean      : 8.298315e-001
Variance  : 1.412112e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.7100.000.cdf.splot
*****

Performance variable : TimeToSeriousAccident
Time      : 8100.000000
Mean      : 1.384062e-001
Variance  : 1.192499e-001
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.8100.000.cdf.splot
*****

Performance variable : TimeToMinorAccident
Time      : 8100.000000
Mean      : 8.407840e-001
Variance  : 1.338663e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.8100.000.cdf.splot
*****

Performance variable : TimeToSeriousAccident
Time      : 9100.000000
Mean      : 1.395240e-001
Variance  : 1.200571e-001
Plot files (pdf) : Experiment_60.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToSeriousAccident.9100.000.cdf.splot
*****

Performance variable : TimeToMinorAccident
Time      : 9100.000000
Mean      : 8.475743e-001
Variance  : 1.291921e-001
Plot files (pdf) : Experiment_60.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_60.trs.TimeToMinorAccident.9100.000.cdf.splot
*****

Finished: Thu Sep 15 03:11:26 2022
```

Appendix 11 (Experiment 7)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:11:27 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_7

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 1.0E-6
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 167.446000
User Time (seconds): 167.446000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

```

Performance variable : TimeToSeriousAccident
Time      : 100.000000
Mean      : 2.235243e-002
Variance  : 2.185280e-002
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

```

Performance variable : TimeToMinorAccident
Time      : 100.000000
Mean      : 8.607284e-008
Variance  : 8.607284e-008
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

```

Performance variable : TimeToSeriousAccident
Time      : 1100.000000
Mean      : 2.201593e-001
Variance  : 1.716892e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 8.477777e-007
Variance : 8.477770e-007
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 3.779439e-001
Variance : 2.351023e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 1.455367e-006
Variance : 1.455364e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 5.038038e-001
Variance : 2.499855e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 1.940022e-006
Variance : 1.940018e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 6.041985e-001
Variance : 2.391427e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 2.326617e-006
Variance : 2.326611e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 6.842804e-001
Variance : 2.160407e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 2.634992e-006
Variance : 2.634985e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 7.481592e-001
Variance : 1.884170e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 2.880973e-006
Variance : 2.880965e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 7.991134e-001
Variance : 1.605312e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 3.077185e-006
Variance : 3.077176e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 8.397581e-001
Variance : 1.345644e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 3.233698e-006
Variance : 3.233687e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 8.721791e-001
Variance : 1.114827e-001
Plot files (pdf) : Experiment_7.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 3.358543e-006
Variance : 3.358532e-006
Plot files (pdf) : Experiment_7.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_7.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:14:14 2022

Appendix 12 (Experiment 70)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:14:15 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_70

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 1.0E-5
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 1.0E-6
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 174.007000
User Time (seconds): 174.007000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 2.235243e-002
Variance  : 2.185280e-002
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 4.919578e-007
Variance  : 4.919575e-007
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 2.201588e-001
Variance  : 1.716889e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 4.845533e-006
Variance : 4.84510e-006
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 3.779424e-001
Variance : 2.351019e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 8.318234e-006
Variance : 8.318165e-006
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 5.038010e-001
Variance : 2.499856e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 1.108829e-005
Variance : 1.108817e-005
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 6.041942e-001
Variance : 2.391436e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 1.329787e-005
Variance : 1.329770e-005
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 6.842745e-001
Variance : 2.160429e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 1.506038e-005
Variance : 1.506016e-005
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 7.481519e-001
Variance : 1.884206e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 1.646628e-005
Variance : 1.646601e-005
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 7.991048e-001
Variance : 1.605363e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 1.758771e-005
Variance : 1.758740e-005
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 8.397482e-001
Variance : 1.345712e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 1.848224e-005
Variance : 1.848190e-005
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 8.721680e-001
Variance : 1.114910e-001
Plot files (pdf) : Experiment_70.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 1.919578e-005
Variance : 1.919541e-005
Plot files (pdf) : Experiment_70.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_70.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:17:09 2022

Appendix 13 (Experiment 8)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:17:09 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_8

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 1.0E-6
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 174.577000
User Time (seconds): 174.577000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 6.581795e-003
Variance  : 6.538475e-003
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 4.481412e-002
Variance  : 4.280581e-002
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 5.638874e-002
Variance  : 5.320905e-002
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 3.839382e-001
Variance : 2.365297e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 8.577467e-002
Variance : 7.841737e-002
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 5.840202e-001
Variance : 2.429406e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 1.031123e-001
Variance : 9.248012e-002
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 7.020679e-001
Variance : 2.091686e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 1.133414e-001
Variance : 1.004951e-001
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 7.717156e-001
Variance : 1.761706e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 1.193765e-001
Variance : 1.051258e-001
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 8.128075e-001
Variance : 1.521515e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 1.229372e-001
Variance : 1.078237e-001
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 8.370516e-001
Variance : 1.363962e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 1.250380e-001
Variance : 1.094035e-001
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 8.513555e-001
Variance : 1.265493e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 1.262775e-001
Variance : 1.103315e-001
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 8.597948e-001
Variance : 1.205477e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 1.270088e-001
Variance : 1.108776e-001
Plot files (pdf) : Experiment_8.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 8.647739e-001
Variance : 1.169400e-001
Plot files (pdf) : Experiment_8.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_8.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:20:04 2022

Appendix 14 (Experiment 80)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:20:04 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_80

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 1.0E-5
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 1.0E-6
SafMonFail_FFB_prob = 0.0
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 180.965000
User Time (seconds): 180.965000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****
Performance variable : TimeToSeriousAccident
Time      : 100.000000
Mean      : 6.213385e-002
Variance  : 5.827324e-002
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.100.000.pdf.splot
              (cdf) : Experiment_80.trs.TimeToSeriousAccident.100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 100.000000
Mean      : 4.353092e-002
Variance  : 4.163597e-002
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.100.000.pdf.splot
              (cdf) : Experiment_80.trs.TimeToMinorAccident.100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 1100.000000
Mean      : 4.158814e-001
Variance  : 2.429241e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.1100.000.pdf.splot
              (cdf) : Experiment_80.trs.TimeToSeriousAccident.1100.000.cdf.splot
*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 2.913652e-001
Variance : 2.064715e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 5.316778e-001
Variance : 2.489965e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 3.724918e-001
Variance : 2.337417e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 5.695828e-001
Variance : 2.451582e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 3.990479e-001
Variance : 2.398087e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 5.819907e-001
Variance : 2.432775e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 4.077408e-001
Variance : 2.414882e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 5.860523e-001
Variance : 2.425950e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 4.105864e-001
Variance : 2.420052e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 5.873818e-001
Variance : 2.423644e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 4.115179e-001
Variance : 2.421709e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 5.878171e-001
Variance : 2.422882e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 4.118228e-001
Variance : 2.422248e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 5.879595e-001
Variance : 2.422631e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 4.119226e-001
Variance : 2.422424e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 5.880062e-001
Variance : 2.422549e-001
Plot files (pdf) : Experiment_80.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 4.119553e-001
Variance : 2.422481e-001
Plot files (pdf) : Experiment_80.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_80.trs.TimeToMinorAccident.9100.000.cdf.splot

Finished: Thu Sep 15 03:23:05 2022

Appendix 15 (Experiment 9)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:23:05 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_9

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 0.0
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 1.0E-6
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 136.386000
User Time (seconds): 136.386000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 4.006361e-002
Variance  : 3.845852e-002
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 8.529373e-008
Variance  : 8.529372e-008
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 3.622204e-001
Variance  : 2.310168e-001
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

```

*****

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 7.711701e-007
Variance : 7.711695e-007
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 5.762604e-001
Variance : 2.441844e-001
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 1.226864e-006
Variance : 1.226863e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 7.184679e-001
Variance : 2.022718e-001
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 1.529626e-006
Variance : 1.529624e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 8.129502e-001
Variance : 1.520622e-001
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 1.730780e-006
Variance : 1.730777e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 8.757239e-001
Variance : 1.088315e-001
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 1.864427e-006
Variance : 1.864423e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 9.174306e-001
Variance : 7.575166e-002
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

```
Time      : 6100.000000
Mean      : 1.953221e-006
Variance  : 1.953217e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.6100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 7100.000000
Mean      : 9.451404e-001
Variance  : 5.184999e-002
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.7100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 7100.000000
Mean      : 2.012215e-006
Variance  : 2.012211e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.7100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 8100.000000
Mean      : 9.635508e-001
Variance  : 3.512070e-002
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.8100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 8100.000000
Mean      : 2.051411e-006
Variance  : 2.051407e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.8100.000.cdf.splot
*****
Performance variable : TimeToSeriousAccident
Time      : 9100.000000
Mean      : 9.757825e-001
Variance  : 2.363100e-002
Plot files (pdf) : Experiment_9.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToSeriousAccident.9100.000.cdf.splot
*****
Performance variable : TimeToMinorAccident
Time      : 9100.000000
Mean      : 2.077453e-006
Variance  : 2.077448e-006
Plot files (pdf) : Experiment_9.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_9.trs.TimeToMinorAccident.9100.000.cdf.splot
*****
Finished: Thu Sep 15 03:25:22 2022
```

Appendix 16 (Experiment 90)

Mobius trs Version 2.4,

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Mobius TRANSIENT SOLVER

TRANSIENT SOLVER RESULTS

Started: Thu Sep 15 03:25:22 2022

Project name: AV_Intersection_with_Motorway_v2

Study name: fixed_st

State space name: sspg_fx

Experiment name: Experiment_90

Global variable settings for this experiment:

F_F_B_O_prob = 1.0E-6
F_S_B_O_prob = 1.0E-6
HDLateAcc_FFB_prob = 1.0E-6
HDLateAcc_FSB_prob = 1.0E-6
HDLateAcc_ISFB_prob = 1.0E-6
HDLateAcc_ISSB_prob = 1.0E-6
IS_F_B_O_prob = 1.0E-6
IS_S_B_O_prob = 1.0E-6
MisHazFailFFB_prob = 0.0
MisHazFailFSB_prob = 0.0
MisHazFailISFB_prob = 0.0
MisHazFailISSB_prob = 1.0E-5
OH2OKRate_FFB = 4500.0
OH2OKRate_FSB = 2250.0
OH2OKRate_ISFB = 2250.0
OH2OKRate_ISSB = 1225.0
SafMonFailFSB_prob = 0.0
SafMonFailISFB_prob = 0.0
SafMonFailISSB_prob = 0.0
SafMonFail_FFB_prob = 1.0E-6
rate_F_F_B2F_F_NB = 609.87
rate_F_F_B2F_S_B = 676.71
rate_F_F_B2F_S_NB = 319.02
rate_F_F_B2IS_F_B = 616.29
rate_F_F_B2IS_F_NB = 551.1
rate_F_F_B2IS_S_B = 549.09
rate_F_F_B2IS_S_NB = 310.79
rate_F_F_NB2F_F_B = 170.61
rate_F_F_NB2F_S_B = 252.79
rate_F_F_NB2F_S_NB = 361.58
rate_F_F_NB2IS_F_B = 209.77
rate_F_F_NB2IS_F_NB = 202.345
rate_F_F_NB2IS_S_B = 361.87
rate_F_F_NB2IS_S_NB = 273.315
rate_F_S_B2F_F_B = 1080.0
rate_F_S_B2F_F_NB = 604.64
rate_F_S_B2F_S_NB = 465.98
rate_F_S_B2IS_F_B = 0.0
rate_F_S_B2IS_F_NB = 439.22
rate_F_S_B2IS_S_B = 940.01
rate_F_S_B2IS_S_NB = 438.63
rate_F_S_NB2F_F_B = 568.63
rate_F_S_NB2F_F_NB = 223.71
rate_F_S_NB2F_S_B = 355.8
rate_F_S_NB2IS_F_B = 0.0
rate_F_S_NB2IS_F_NB = 264.45
rate_F_S_NB2IS_S_B = 219.02
rate_F_S_NB2IS_S_NB = 228.71
rate_IS_F_B2F_F_B = 986.54
rate_IS_F_B2F_F_NB = 822.71
rate_IS_F_B2F_S_B = 728.83
rate_IS_F_B2F_S_NB = 430.43
rate_IS_F_B2IS_F_NB = 1680.0

```

rate_IS_F_B2IS_S_B = 1164.71
rate_IS_F_B2IS_S_NB = 0.0
rate_IS_F_NB2F_F_B = 963.55
rate_IS_F_NB2F_F_NB = 948.25
rate_IS_F_NB2F_S_B = 560.88
rate_IS_F_NB2F_S_NB = 918.64
rate_IS_F_NB2IS_F_B = 1800.0
rate_IS_F_NB2IS_S_B = 936.29
rate_IS_F_NB2IS_S_NB = 1109.88
rate_IS_S_B2F_F_B = 0.0
rate_IS_S_B2F_F_NB = 573.8
rate_IS_S_B2F_S_B = 848.17
rate_IS_S_B2F_S_NB = 511.62
rate_IS_S_B2IS_F_B = 0.0
rate_IS_S_B2IS_F_NB = 743.98
rate_IS_S_B2IS_S_NB = 645.875
rate_IS_S_NB2F_F_B = 0.0
rate_IS_S_NB2F_F_NB = 207.38
rate_IS_S_NB2F_S_B = 328.93
rate_IS_S_NB2F_S_NB = 324.69
rate_IS_S_NB2IS_F_B = 0.0
rate_IS_S_NB2IS_F_NB = 678.65
rate_IS_S_NB2IS_S_B = 601.59

```

```

Verbosity: 0
Accuracy: 1.000000e-009
Time points: 100.000000 1100.000000 2100.000000 3100.000000 4100.000000 5100.000000 6100.000000 7100.000000 8100.000000
9100.000000
Computation Time (seconds): 138.154000
User Time (seconds): 138.154000
System Time (seconds): 0.000000
Rate of Poisson process: 11953.457249
Number of states in process: 18
Number of states with reward: 2
Number of time points: 10

```

Time Point	Left Trunc.	# Iterations	Error
100.000000	1187690	1206171	1.000000e-009
1100.000000	13123418	13184702	1.000000e-009
2100.000000	25067187	25151861	1.000000e-009
3100.000000	37013104	37115981	1.000000e-009
4100.000000	48960168	49078480	1.000000e-009
5100.000000	60907975	61039928	1.000000e-009
6100.000000	72856314	73000624	1.000000e-009
7100.000000	84805057	84960747	1.000000e-009
8100.000000	96754123	96920415	1.000000e-009
9100.000000	108703452	108879711	1.000000e-009

Performance variable : TimeToSeriousAccident

```

Time      : 100.000000
Mean      : 4.006360e-002
Variance  : 3.845851e-002
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.100.000.cdf.splot

```

Performance variable : TimeToMinorAccident

```

Time      : 100.000000
Mean      : 5.360793e-007
Variance  : 5.360790e-007
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.100.000.cdf.splot

```

Performance variable : TimeToSeriousAccident

```

Time      : 1100.000000
Mean      : 3.622195e-001
Variance  : 2.310165e-001
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.1100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.1100.000.cdf.splot

```

Performance variable : TimeToMinorAccident
Time : 1100.000000
Mean : 4.846871e-006
Variance : 4.846847e-006
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.1100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.1100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 2100.000000
Mean : 5.762580e-001
Variance : 2.441847e-001
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.2100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.2100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 2100.000000
Mean : 7.710935e-006
Variance : 7.710875e-006
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.2100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.2100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 3100.000000
Mean : 7.184638e-001
Variance : 2.022735e-001
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.3100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.3100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 3100.000000
Mean : 9.613802e-006
Variance : 9.613709e-006
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.3100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.3100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 4100.000000
Mean : 8.129446e-001
Variance : 1.520657e-001
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.4100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.4100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 4100.000000
Mean : 1.087806e-005
Variance : 1.087794e-005
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.4100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.4100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 5100.000000
Mean : 8.757170e-001
Variance : 1.088367e-001
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.5100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.5100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 5100.000000
Mean : 1.171802e-005
Variance : 1.171788e-005
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.5100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.5100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 6100.000000
Mean : 9.174226e-001
Variance : 7.575835e-002
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.6100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.6100.000.cdf.splot

Performance variable : TimeToMinorAccident

Time : 6100.000000
Mean : 1.227608e-005
Variance : 1.227593e-005
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.6100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.6100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 7100.000000
Mean : 9.451316e-001
Variance : 5.185786e-002
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.7100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.7100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 7100.000000
Mean : 1.264686e-005
Variance : 1.264670e-005
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.7100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.7100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 8100.000000
Mean : 9.635413e-001
Variance : 3.512949e-002
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.8100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.8100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 8100.000000
Mean : 1.289320e-005
Variance : 1.289303e-005
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.8100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.8100.000.cdf.splot

Performance variable : TimeToSeriousAccident
Time : 9100.000000
Mean : 9.757726e-001
Variance : 2.364048e-002
Plot files (pdf) : Experiment_90.trs.TimeToSeriousAccident.9100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToSeriousAccident.9100.000.cdf.splot

Performance variable : TimeToMinorAccident
Time : 9100.000000
Mean : 1.305687e-005
Variance : 1.305670e-005
Plot files (pdf) : Experiment_90.trs.TimeToMinorAccident.9100.000.pdf.splot
(cdf) : Experiment_90.trs.TimeToMinorAccident.9100.000.cdf.splot

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