

GRIF PETRI MODULE 2018



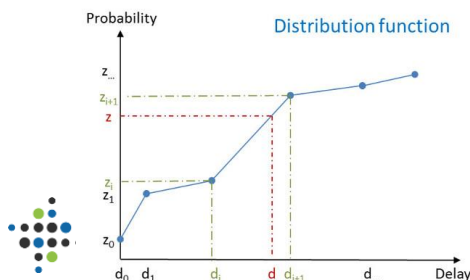
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LAW: CUMULATIVE DISTRIBUTION FUNCTION

- It defines cumulative distribution function with a table (time, probability that event occurs).
- Density:
 - Defined by user

Time	Probability
0.0	0.4
10.0	0.45
20.0	0.5
25.0	0.7
30.0	0.74
40.0	0.8



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LAW: CUMULATIVE DISTRIBUTION FUNCTION

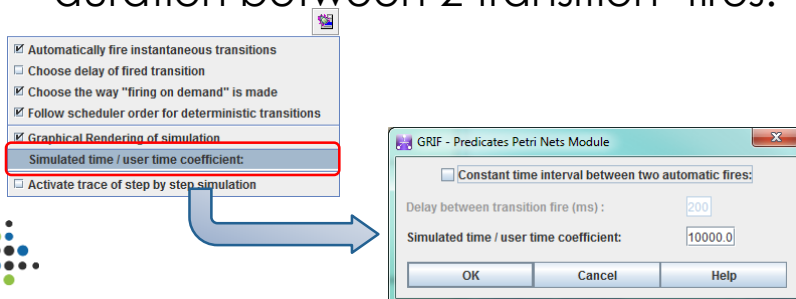
- Simulation:
 - Z is equally distributed randomly between 0 and 1
 - If Z is less than z_0 then $d = 0$.
 - If Z greater than z_N then $d = d_N$.
 - Determination by dichotomy of the index i such that z ranges between z_i and z_{i+1} .
 - Calculation of the delay by linear interpolation between d_i and d_{i+1} :
 - $d = d_i + (d_{i+1} - d_i) \cdot (Z - z_i) / (z_{i+1} - z_i)$.



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SIMULATED TIME

- In previous version of interactive simulation, time between 2 transition-fires is constant.
- Now, it is possible to respect the duration between 2 transition- fires:



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SEQUENCE GENERATION

● A new calculation is possible:


Computation mode
 Sequence generation ▼
 Statistics
 Sequence generation

General Advanced options **Sequence generation** Variables Output options

Sequence generation will provide sequences containing transitions that have their SEQGEN attribute set to true.

Undesirable/Top event: ER ▼

☒ Save seeds



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SEQUENCE GENERATION

Results of computation : 05-Club-GRIF-2017_Petri2018_SeqGen.jpp - default-Moca

Sequence generation **Results** Standard output Errors Info

ER

Order	Sequence	Number of occurrence	Percentage ▼
2	C5_WorkToFail.C1_WorkToFail	880	8.8%
2	C1_WorkToFail.C5_WorkToFail	825	8.25%
2	C4_WorkToFail.C5_WorkToFail	808	8.08%
2	C5_WorkToFail.C4_WorkToFail	787	7.87%
2	C1_WorkToFail.C4_WorkToFail	766	7.66%
2	C4_WorkToFail.C1_WorkToFail	745	7.45%
3	C5_WorkToFail.C3_WorkToFail.C1_WorkToFail	409	4.09%
3	C3_WorkToFail.C5_WorkToFail.C4_WorkToFail	400	4%
3	C3_WorkToFail.C4_WorkToFail.C5_WorkToFail	390	3.9%
3	C3_WorkToFail.C4_WorkToFail.C1_WorkToFail	384	3.84%
3	C4_WorkToFail.C3_WorkToFail.C5_WorkToFail	376	3.76%
3	C1_WorkToFail.C3_WorkToFail.C5_WorkToFail	368	3.68%
3	C3_WorkToFail.C1_WorkToFail.C4_WorkToFail	361	3.61%

Nb = 1

History	Seed	Occurrence time (h)
5	1.5773E8	7.9028E1
19	1.7515E9	3.6479E1
40	3.7637E8	4.361E1
47	1.1753E9	4.7933E1
67	1.1318E9	6.5949E1
64	4.2072E8	5.4224E1

lundi, 6 novembre 2017 11:00:29 CET

OK

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SEQUENCE GENERATION

- Sequence minimization


Minimisation:

NONE

NONE

SUBWORD

See Demo



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THE END 😊


SATODEV
SAFETY TOOLS DEVELOPMENT

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