PetriNetCode Input File Structure

Overall Net Structure

Places\_Details

Each row is a different Place, with each column representing:

1. Place ID
2. Initial Token Count

Transition\_Details

Each row is a different Transition, with each column representing:

1. Transition ID
2. Transition Type Code where:

* 1 = Deterministic Transition
* 2 = Stochastic Transition
* 3 = Reset Transition
* 4 = BN Transition

1. Number Input Arcs
2. Number Output Arcs
3. Number Inhibitor Arcs
4. Distribution Code
   * 1 = Exponential Distribution
   * 2 = Weibull Distribution – 2 Parameter
5. Number of Distribution Parameters
6. Parameter 1
   * For Exponential this is the mean
   * For Weibull this is the scale parameter
7. Parameter 2
   * For Weibull this is the shape parameter
8. Parameter 3
9. Firing Delay – Deterministic Time

Arc\_Details

Each block of eight rows represents the arcs associated with a different transition.

Where each row represents:

1. Input Arc Places
2. Input Arc Weights
3. Output Arc Places
4. Output Arc Weights
5. Inhibitor Arc Places
6. Inhibitor Arc Weights
7. Causal Arc Places
8. Reset Arc Places

The first column of each row indicates the transition it is associated with. The number of columns on each row after that will depend on the number of the specific arcs being described by that row in the PN, i.e. each row length can vary.

BN Transition Input

The first row of each BN Transition Input with contain information Global Transition Number, Number of Causal Arcs, Number of Permitted Marking Permutations *m*.

The second row will have *m* columns, where each column is the appropriate value for the i-th marking permutation

There will be *m* subsequent rows, where *m* is the number of permitted marking permutations and *n* columns in each row, where *n* is the number of causal arcs associated with the transition.