## **Component 1: Data**

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## 1 Option 1

The traces are in the file called Traces.csv. When a software component (part of the controller) is going to perform a transition, it generates a trace and sends to the oracle at runtime. For this option, these traces are written in a file (Traces.csv):

- The first column of each line in this file is the identification of the system component (in this case of study there are three components: 1, 2 and 3).
- The second column is the identification of the current state of the component.
- The third column is the identification of the next target state (transition) of the component: the component is suggesting a transition to this state.
- The fourth column represents the identification of the event that has been received by the software component to suggest this transition.
- The fifth column is the timing information. The numbers that are in this column must be ordered incrementally. All the traces have to be causal and ordered in the time.

## 2 Option 3

This option enables communicating the controller with the oracle at runtime. You can select the number of events to be sent to the controller and when a transition is going to be performed, it generates the trace and send it to the oracle at runtime. For this option, you will need to run first the oracle and then the oracle. They share the information using the ICE middleware.