**Model Documentation (first Stage : Scenario : Plain Grassland and Spread of Fire)**

1. **Creating an Agent Cell and Population Cells in the Main Agent**
2. **In the Agent Cell :**
3. StateChart   
   i. Unburnt -> Burning

Transition - Ignite

Triggered By - Message

ii. Burning -> Burning

Transition - Neighbor\_Burning

Triggered By - Rate (1 per hour ; sending message Ignite to all neighbors)

iii. Burning -> Unburnt

Transition - Burning\_Burnt

Triggered By - Rate (0.00083 per hour ; approximately 50days) {assumed values}

1. Variable : Colour

Initial Value - Green

1. tile

width\*height = 40\*40

Fill Color : color (variable in the Cell Agent)

1. **In the Agent Main**

Startup : Deliver message to random agent “Ignite”

1. Cells (population of Cell)

Initial Value = 40\*40