

PA116 DUM

Statechart diagram

Statechart diagram

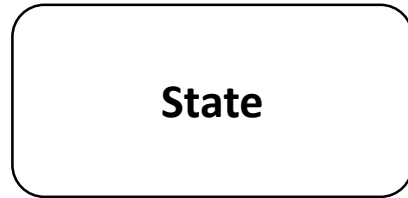
aka State diagram or State machine diagram

- 1) Shows behavior of classes in response to stimuli
- 2) Used to describe systems with significantly dynamic behavior, i.e. those that change their states in non-trivial manner
- 3) The stimuli can be either external or internal

Statechart diagram II

- Illustrates system lifecycle from initiation to termination
- Highlights events that cause change of system state
- Records action that are successors to changed states

Notation



Simple / Composite / Substate



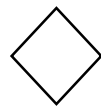
Described by the event that triggered the change from one state to another



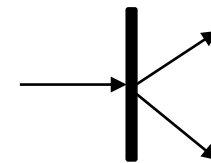
Initial state



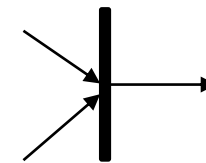
Final state



Decision



Fork



Join

How to model it

1. Decide which parts of system show interesting dynamics of behavior
2. Identify important objects to be analyzed (see: Class diagram)
3. Identify the states
4. Identify the events that trigger state transition (see: Yourdon's event partitioning, processes in DFD)
5. Repeat steps 3 and 4

Example

