GateFactory

-map: Map<String, Gate>
-inner_map: Map<Element, String>

+createGate(elt:Element): String
+getGate(id:String): Gate
+gateIdExists(id:String): boolean
+getIdByElement(elt:Element): String

PortFactory

+input_port_map: Map<String, InputPort>
+output_port_map: Map<String, OutputPort>

+getInputPort(id:String): InputPort
+getOutputPort(id:String): OutputPort
+getInputPortIds(): List<String>
+getOutputPortIds(): List<String>
+containsInputPortId(id:String): boolean
+containsOutputPortId(id:String): boolean

Gate

+gate_id: String
+gate_name: String
+element: Element
+current_logic_value: LogicValue
+input_port_ids: List<String>
+output_port_ids: String
+min_delay: long
+max_delay: long

InputPort

+input_port_id: String
+output_port_id: String
+gate_id: String
+ip: Inport

OutputPort

+output_port_id: String
+input_port_id: String
+gate_id: String
+ip: Inport