{"Each name of a NamedElement must be unique in the model." "forall ne1, ne2: V{rooms.NamedElement} @ isDefined(ne1.name) and isDefined(ne2.name) and ne1.name <> ne2.name" "from n1, n2: V{rooms.NamedElement} with isDefined(n1.name) and isDefined(n2.name) and n1.name <> n2.name report n1, n2. end"} {"The name of a NamedElement may not be null." "forall ne: V{rooms.NamedElement} @ isDefined(ne)" "from ne: V{rooms.NamedElement} with isUndefined(ne) report ne end"} NamedElement Role This assumes a directional view on doors and rooms. - name : String From and To are purely conceptual and depend on the perspective (side of Door). - roles 1..\* 1 - persons - room Room Door Person From **IsInRoom** - sourceRoom - entries - width : Integer - locked : Boolean - person 0..1 - height : Integer - vertical : Boolean To - targetRoom - exits - protectedDoor - protectedRoom HasCardReaderSensor Person may be out of this world ;-) 0..1 | - cardReaderSensor HasRoomSensor Positionable - x : Integer CardReaderSensor - y: Integer - sensors RoomSensor Sensor MidRangeRFIDSensor CameraSensor Missing parts: AccessRules + AdaptationRules + Features