

OWL + SWRL rules

An OWL ontology contains the following class hierarchy, properties and individuals:

Classes:

Road
 LongRoad
 WindingRoad

Properties:

hasLength
hasTurns

Individuals:

r1, r2, r3 (of the class Road)

1. Define the roads r1, r2, r3 with the following values:
r1: length = 18 and number of turns = 35
r2: length = 30 and number of turns = 75
r3: length = 22 and number of turns = 18
2. Define a long road as a road with length > 20
`Road(?x), hasLength(?x, ?l), greaterThan(?l, 20) -> LongRoad(?x)`
3. Define a winding road as a road with turnrate (number of turns/length) > 1.9
`Road(?x), hasLength(?x, ?l), hasTurns(?x, ?t), divide(?r, ?t, ?l),
greaterThan(?r, "1.9"^^xsd:double) -> WindingRoad(?x)`