



RDFS semantics : standard
inference rules to derive additional
triples from known statements



type propagation

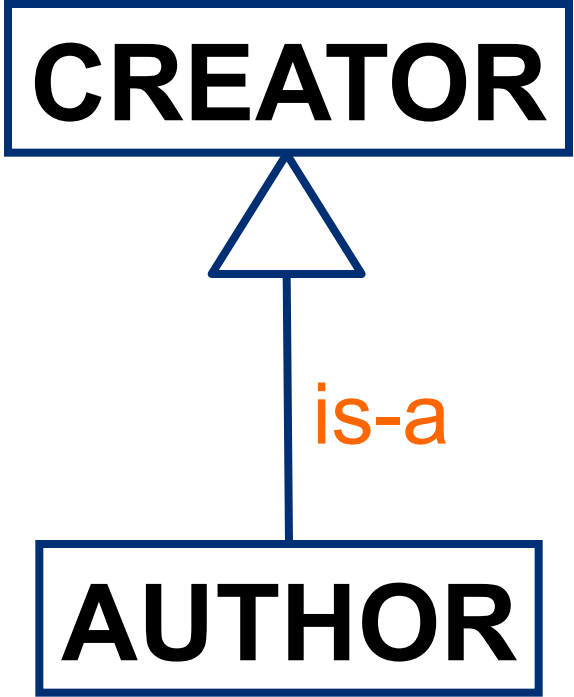
IF (c₂, subClassOf, c₁)
AND (x, type, c₂)
THEN (x, type, c₁)

IF (Report, subClassOf, Document)
AND (ReportXYZ, type, Report)
THEN (ReportXYZ, type, Document)

subClass transitivity

IF (c₂, subClassOf, c₁)
AND (c₃, subClassOf, c₂)
THEN (c₃, subClassOf, c₁)

IF (Document, subClassOf, Artefact)
AND (Report, subClassOf, Document)
THEN (Report, subClassOf, Artefact)



property propagation

IF (p₂, subPropertyOf, p₁)
AND (x, p₂, y)
THEN (x, p₁, y)

IF (author, subPropertyOf, creator)
AND (Tom, author, Report123)
THEN (Tom, creator, Report123)

subProp transitivity

IF (p₂, subPropertyOf, p₁)
AND (p₃, subPropertyOf, p₂)
THEN (p₃, subPropertyOf, p₁)

IF (parent, subPropertyOf, ancestor)
AND (father, subPropertyOf, parent)
THEN (father, subPropertyOf, ancestor)

RDFS relations have a signature



domain inference

IF (p₁, domain, c₁)

AND (x, p₁, y)

THEN (x, type, c₁)

IF (author, domain, Person)

AND (Tom, author, Report123)

THEN (Tom, type, Person)

range inference

IF (p₁, range, c₁)

AND (x, p₁, y)

THEN (y, type, c₁)

IF (author, range, Document)

AND (Tom, author, Report123)

THEN (Report123, type, Document)