

Rule Languages: Automotive Use Case

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Need for Business Rules/Constraints

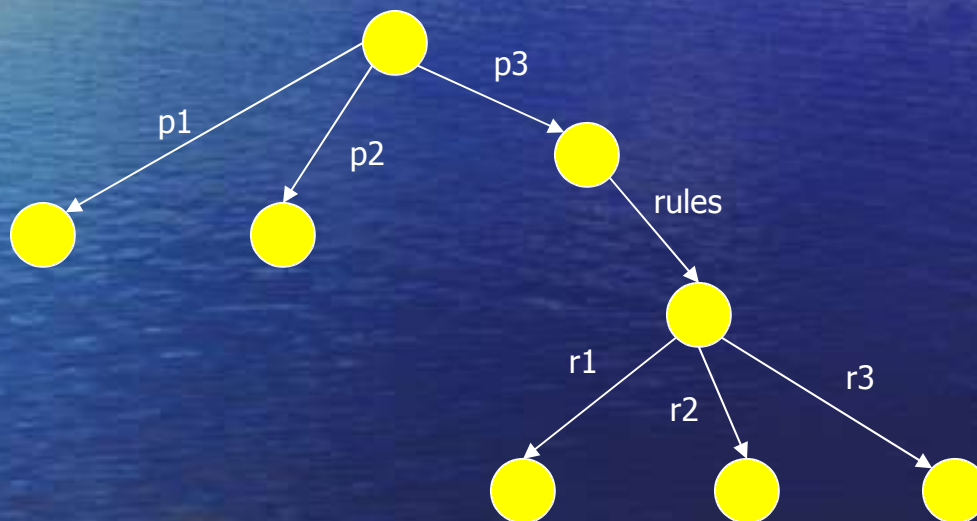
- If robot 1 is busy, send pallet to robot 2.
- Ship dash assemblies in lot sizes of 20.
- Sheet metal guide hole diameter $\leq 3\text{mm}$.

Current Business Rules/Constraints

- Often implemented in
 - spreadsheets
 - text of contracts
 - hard-coded in custom software

Requirements

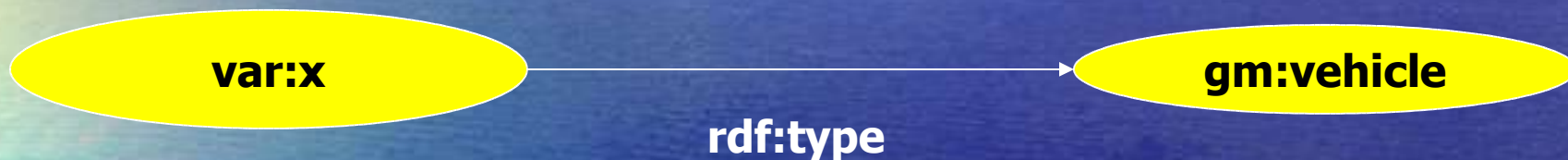
- We would like to express business rules directly in RDF so we can attach to product/process ontology



Question:

- How to distinguish between
 - assertions about data and
 - rules that contain quantified variables?

Assertion or Rule?



How to distinguish a URIref as a variable vs. name?

How to specify quantification over the variable?

Suggestion: Use Reification

- Reify WFF's
- Use meta-assertion to specify resources that are variables, and their quantifiers

Example: $\forall x$ [type(x, vehicle)]

