



A LaTeX-Style Syntax for Authoring OWL 2 Ontologies

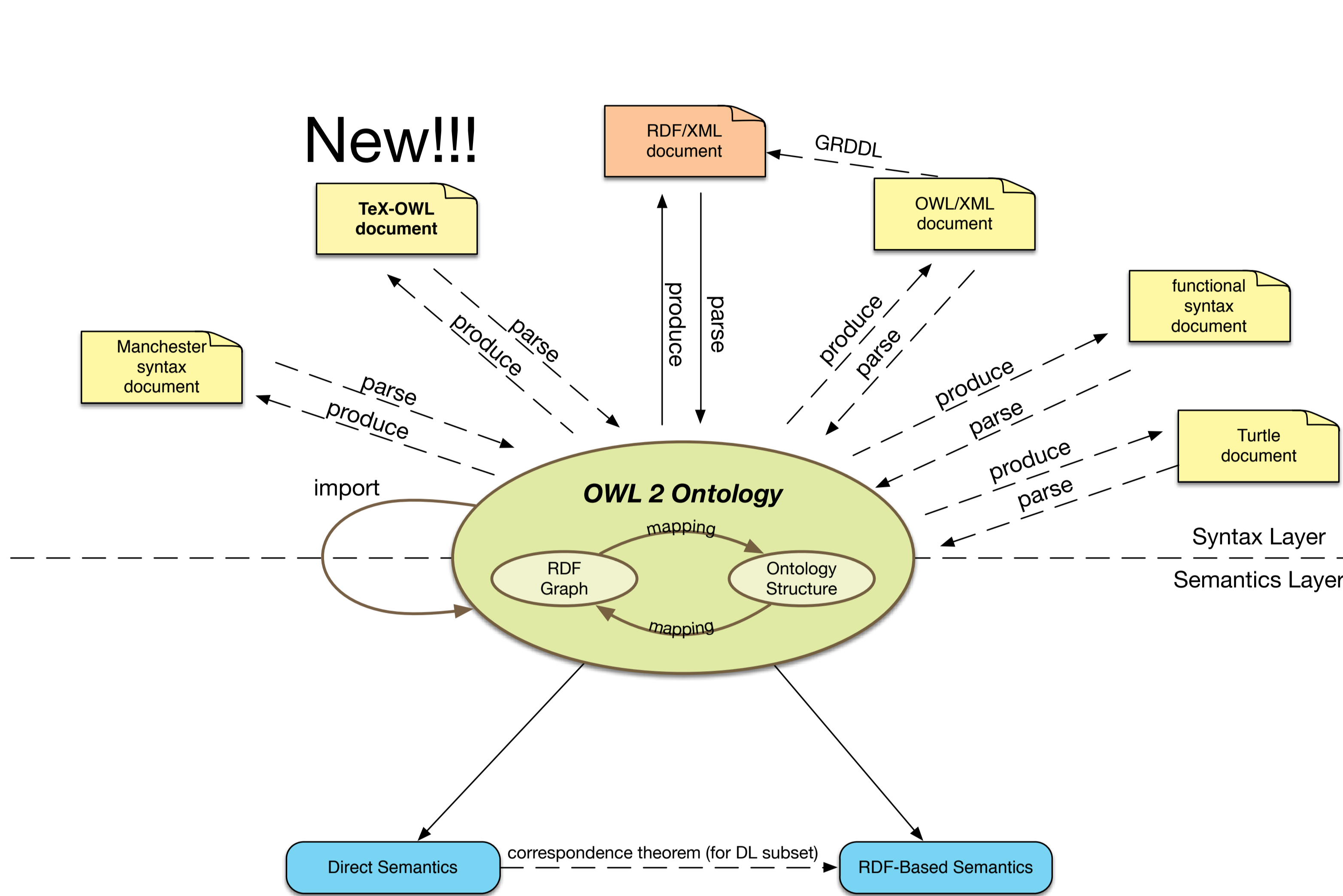
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% sample ontology about a company domain

```
\ns <http://www.mydomain.org/company#>
```

```
\begin{ontology}[<http://www.mydomain.org/company>]
  person \c
  manager \cisa person
  researcher \cisa person
  first_name \ddomain person
  first_name \drange rdf:PlainLiteral
  last_name \ddomain person
  last_name \drange rdf:PlainLiteral
  age \ddomain person
  age \drange xsd:positiveInteger
  cooperates_with \odomain person
  cooperates_with \orange person
  mario \idiff marco
  researcher(marco)
  first_name(marco, "Marco")
  cooperates_with(marco, mario)
  manager(mario)
  first_name(mario, "Mario")
  last_name(mario, "Rossi")
  age(mario, "33"[xsd:positiveInteger])
\end{ontology}
```

TeX-OWL's key points

- Is a new OWL 2 syntax that was designed in response to a demand from users for a more concise syntax that can be easily used to quickly write small-size ontologies by hand
- Is inspired by the LaTeX format and uses the same format for parameters and keywords
- Is suited for use in plain text editors. Users can advantageously use TeX/LaTeX syntax highlighting capabilities of editors. Additionally, one can advantageously reuse finding/checking matching braces functionality of editors; this functionality is especially useful when long nested formulas are written
- A reference implementation of a Java based parser and writer has been produced, which may be integrated into any tool, using the OWL API. The implementation also includes converters, which can transform TeX-OWL to other OWL 2 syntaxes and vice versa
- Preliminary evaluation results have shown that it is indeed the most concise syntax, is intuitive as the Manchester Syntax, is easy to use for authoring ontology and that, in general, this syntax is better to use for writing ontologies by hands than other OWL 2 syntaxes

Grammar, Code, On-line Demo: <http://dkm.fbk.eu/technologies/tex-owl>



Publications:

- Matteo Matassoni, Marco Rospocher, Mauro Dragoni, Paolo Bouquet - *TeX-OWL: a Latex-Style Syntax for authoring OWL 2 ontologies*, In ISWC 2014 Posters and Demos, 2014
- Matteo Matassoni, Marco Rospocher, Mauro Dragoni, Paolo Bouquet - *Authoring OWL2 ontologies with the TeX-OWL syntax*, In The 11th OWL: Experiences and Directions Workshop (OWLED), 2014

