The Knowledge LaTeX Package
Towards Semantic LaTeX

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Isn’t LaTeX Already Semantic?

Semantic: separation of “meaning” and “representation”.

The difference between

\textit {my text}

and

\emph {my text}
\newcommand\upc{\mathop{\uparrow}\nolimits}
\newcommand\dc{\mathop{\downarrow}\nolimits}
\newcommand\dwc{\mathop{\downarrow}\nolimits}
\newcommand\Down{\mathop{\textit{Down}}\nolimits}
\newcommand\ResO[2]{{#1}_{\ngeq#2}}
\newcommand\ResW[2]{{#1}_{\orth#2}}
\newcommand\ResH[2]{{#1}_{<#2}}
\newcommand\orth{\bot}
\newcommand\leqaug{\leq_{\text{aug}}}
\newcommand\leqstruct{\leq_{\text{st}}}
\newcommand\embeds{\leqstruct}
\newcommand\reflects{\hookrightarrow}
\newcommand\refl{\hookrightarrow}
\newcommand\augments{\geq_{\text{aug}}}
\newcommand\lexleq{\leq_{\text{lex}}}
\newcommand\geqaug{\geq_{\text{aug}}}

\newcommand\trsklynd{Tarski-Lyndon Theorem}
\newcommand\ltrsk{\L o\'s-Tarski Theorem}
\newcommand\ChLoSu{Chang-\L o\'s-Suszko Theorem}
\newcommand\hpt{Homomorphism Preservation Theorem}
\newcommand\puext{preservation under extensions}
Going Full Semantic
Key Features

Requirements

• I don’t want to type complicated commands
• I want to point to the introduction of a notion in my document
• I want to have an index of all the notions introduced
• I want to have several representations for the same notion
• I want to be able to publish, print, and use my LaTeX document as usual
Figure 1: The Knowledge Workflow
DEMO
How to use and install

https://www.ctan.org/pkg/knowledge

https://github.com/remimorvan/knowledge-examples
Thank you 😊