

XSEM is a modeling language created for modeling XML schemas. Its implementation, called eXolutio, provides a user friendly interface for modeling schemas in XSEM. The aim of this work is to design an algorithm for validation of XML documents against XSEM PSM schemas and comparison of the expressive power of XSEM PSM with other XML schema languages. The thesis contains the description of fundamental algorithm and all the extensions required to fully support all the constructs and capabilities provided by XSEM. The practical part describes the implementation of the proposed algorithm as an extension of eXolutio.