

DLR is an expressive description logic with support of n-ary relations. Currently, there is no known algorithm for native reasoning within DLR. However there are two approaches that allow to delegate reasoning services of DLR to binary description logics. In this work we define new description logic NDL, a subset of DLR, for which we believe that native reasoning can be provided. Based on the existing approaches, we transform NDL to binary description logics for which the current of state-of-art of reasoners exist. New transformations will be analysed both theoretically and empirically. N-ary data for benchmark will be created from existing OWL ontologies by transformation of opposite direction. This benchmark can be used for comparison of native reasoning and reasoning by transformation to binary DLs.