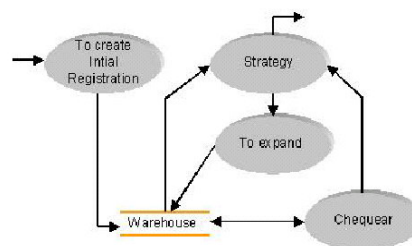


# A Satisfiability Algorithm and the Structure of a Classifier of Concepts for Descriptive Logic ALCQ

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## Abstract

In this issue we describe the structure of the data of Descriptive Logic ALCQ. This specification is the basis for the determination of the satisfiability of concepts. A concept  $C$  is satisfiable in  $A$  (ABox) if  $A$  admits a model in which  $C$  has a nonempty interpretation. The subsumption and satisfiability of concepts are equivalent. The satisfiability algorithm is designed based on the exhaustive search in the registers of a table, generated by the expansion rules of the Tableaux Calculus. From the subsumption of concepts a classifier is designed which establishes a taxonomy in the terminology used.



Modelo Funcional

