Null Values in Relational Databases and Sure Information Answers

Hans-Joachim Klein

Institut für Informatik und Prakt. Mathematik
Universität Kiel, 24098 Kiel, Germany
hjk@is.informatik.uni-kiel.de

Abstract. Null values are ubiquitous in database applications. There is, however, no common agreement upon how to deal with null values, neither in practice nor in theory. In this paper, the null value problem is revisited with special emphasis on answers representing sure information with respect to possible world semantics. The focus is on the *unknown* and the *no information* interpretation of null values. A new semantics for the *no information* interpretation of nulls is proposed taking into account a problem arising in connection with the closed world assumption. Results are applied to the query language SQL.