Problem #102

Originator: Bruno Courcelle
Date: January 2005

Summary: Investigate normalization by a canonical term rewrite system in the setting of second-order monadic logic

Consider a confluent and terminating term rewriting system and the mapping from a term to its normal form. When is this mapping a monadic second-order transduction? When does it preserve decidability of the monadic second-order theory of a set of terms?

See [Cou94, CK02]

Bibliography

[CK02] Bruno Courcelle and Teodor Knapik. The evaluation of first-order substitution is monadic second-order compatible. *Theoretical Computer Science*, 281(1–2):177–206, June 2002.

[Cou94] Bruno Courcelle. Monadic-second order graph transductions: A survey. *Theoretical Computer Science*, 126:53–75, 1994.

January 22, 2014