International J. of Engg. Research & Indu. Appls. (IJERIA). ISSN 0974-1518, Vol.2, No.II (2009), pp 349-358

CONFLUENCE PROPERTY DETERMINATION USING ASSOCIATIVE LAW

R. MANICKA CHEZIAN AND T. DEVI

Abstract

An active database system is said to be confluent if, for any initial database state, the final state is not influenced by the order of execution of the rules. In real applications, it is desirable that the execution of a set of rules always terminate and, for a given initial database state, the resulting final database state be unique. In a distributed environment, a single event can trigger multiple rules that execute over distributed sources of data. In these circumstances, different orders of execution may lead to different system states. Researchers have used commutative law to check for confluence in active databases. This paper presents a novel idea that improves the performance of the checking the dependency among multiple rules or triggers to achieve confluence property using associative law. This paper also presents the performance analysis for confluence property using associative law.

Keywords: Confluence property, Active Databases, Active rules, Associative law