Abstract:

The Resource Description Framework (RDF) has accepted as a standard method for representing semantics of resources in machine understandable format. In recent years, a large part of data on the web are represented on the RDF standard and as a result of this, we need an efficient and effective way for handling RDF based systems. In the past, many approaches have been proposed for querying RDF based datasets. The Simple Protocol and RDF Query Language (SPARQL) has been recommended by the W3C communities for querying RDF based datasets. In this work, we propose a new approach for querying RDF datasets by encoding a problem (both RDF and SPARQL) into Constraint Satisfaction Problem (CSP) and solve them by employing an efficient CSP solver. In particular we translate RDF/SPARQL graph to XML representation of Constraint Networks (XCSP).