

An Improved Efficient Software Maintenance with Semantic Web

Rab Nawaz, Mehtab Afzal, Anjum Hussain Shah

Department of Computer Science

COMSATS Institute of Information Technology, Abbottabad, Pakistan

Emails : { rabnawaz, mehtabafzal, anjumshah } @ciit.net.pk

Abstracts

Software maintenance is an important phase of software engineering process. For efficient maintenance, software professionals should know first about the components and information about them i.e. Metadata or data dictionary. One of the important information that needs to be known by the maintainers first of all is the versioning information. In this paper software components and information about them i.e. metadata about those components are represented in OWL Ontology. After creation of OWL, this created Ontology is mapped with a standardized Software Engineering Concept Ontology (SEC Ontology) and then SPARQL Query Languages are used to query the RDF graph in order to extract useful information about software components. The proposed methodology empowers the software developers and professionals, to perform software maintenance with little efforts as for as time and cost are concerned.