

**A Systematic Approach to Measure the Problem  
Complexity of Software Requirement Specifications  
of an Information System**

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**Abstract**

SRS document is the first deliverable product/milestone in the software development process and acts as a basis for the formal contract between the user and the developer of the software of an information system. This document is written in natural language and reflects the problem (computation) complexity of the system. We felt that there was a need to measure this complexity since little effort has been made towards the measurement of this complexity; and then deriving estimates from the SRS. In this work, we define a problem complexity metric, which measures the strength(s) of the requirements specified within the SRS document, in terms of their inter-dependencies. This metric will be used in future works to derive various estimates related to the development of software. To arrive at this metric, a requirements model has been proposed that provides the necessary base for the measurement. The work has been supported with the successful calculation of this metric for a real life example.

*Keywords:* Software Requirements Specifications, Metric, Strength, CARE Tool.