

SPMDL: Software Product Metrics Definition Language

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Software metrics are becoming more acceptable measures for software quality assessment. However, there is no standard form to represent metric definitions, which would be useful for metrics exchange and customization. In this article, we propose the Software Product Metrics Definition Language (SPMDL). We develop an XML-based description language to define software metrics in a precise and reusable form. Metric definitions in SPMDL are based on meta-models extracted from either source code or design artifacts, such as the Dagstuhl Middle Meta-model, with support for various abstraction levels. The language defines several flexible computation mechanisms, such as extended Object Constraint Language queries and predefined graph operations on the meta-model. SPMDL provides an unambiguous description of the metric definition; it is also easy to use and is extensible.

CCS Concepts: • **Software and its engineering** → **Software notations and tools**; **Context specific languages**; **Domain specific languages**;

Additional Key Words and Phrases: Software metrics, definition language

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