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Approximate COSMIC Functional Size

Guideline for Approximate COSMIC Functional Measurement

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Abstract

The COSMIC method provides a standardized way of measuring the functional size of software from the functional domains commonly referred to as ‘business application’ or ‘Management Information Systems’ (MIS) and ‘real-time’ software, and hybrids of these. In practice, it is often sufficient to measure a functional size approximately. Typical situations where such a need arises are early in the life of a project, before the functional user requirements (‘FUR’) have been specified down to the level of detail where the precise size measurement is possible or when a measurement is needed, but there is insufficient time or no need to measure the required size using the standard method.

The guideline describes the current state of the art with regard to approximate COSMIC functional size measurement. All proposed COSMIC approximation methods rely on determining some average of the size(s) and/or number(s) of functional processes. The fact that the size of a single functional process has no upper finite limit is probably the reason why multiple COSMIC approximation methods have been developed for different types of software. Therefore, the guideline describes a number of approximation methods with their pros and cons, their recommended area of application and their validity, rather than document a single COSMIC approximation method.

Keywords – COSMIC; approximation; scaling; classification; accuracy, software measurement.

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