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# Environment modeling for evaluating system variants in model-based systems engineering

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## Abstract

Model-based systems engineering is a methodology for the interdisciplinary system development using different domain models. Considering the intended system's environment and context of usage in early design phases is a way of bridging the gap from system's design to its real-life applicability. Simulations represent a possible approach to consider different constellations but are effortful. Therefore, we present a generic environment modeling approach to evaluate different environmental models with their respective environmental, user and system's impact based on generated system variants derived from system requirements. In this sequential process, we consistently link and evaluate system variants to possible system contexts.

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