

Cominatorial Test Generation for Systems Biology

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Abstract: Combinatorial testing has been applied to the software testing field for many years to ensure that all parameters of a system are combined for testing in a systematic way. This approach has been applied recently to help predictions in Systems Biology, however there is no widely available tool that can generate these systematic tests for a given growth media. Through the use of containerization and The Department of Energy Systems Biology Knowledgebase platform, this project builds on existing combinatorial testing software, in order to provide a widely available method of generating systematic tests for growth media. The resulting software from this project allows a KBase user to generate systematic tests on biological media, and integrate those results into their existing workflow.