A FRAMEWORK FOR
FOOD PROCESSING PLANT MODELLING

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Abstract: The paper presents the development of an open, standard based and low-cost framework for large scale food processing plant modeling. The models produced with the support of this framework should be used for Model Based System Engineering activities. The resulted architecture is presented and tested through the model generation for a practical case, a sugar beet factory. The model is detailed down to the describing mathematical equation. Representatives SysML diagrams are presented. The formal description of a sugar plant crystallization section in SysML proves that the language is expressive enough to capture the structural and functional aspects of the plant relevant to system engineering and process engineering.

Keywords: SysML, Enterprise Systems Engineering, modelling, sugar beet factory

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