TASTE: ANALYSIS AND IMPROVEMENT OF DISTRIBUTION NETWORKS

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The co-ordination of goods and information flows is a challenging task in complex distribution networks where many different products and consumer groups are involved. The effects of introducing new or different control structures are difficult to predict. In many cases, a formal description of the network and a simulation of the effects of different decisions with respect to the network can gain insight into and improve the understanding of the many logistic trade-offs in such complex systems.

TASTE is a domain specific library for logistic networks, based on a (Petri-net based) formal specification language. The library contains logistic components with a generic structure and special install options. Here lies the basic assumption of TASTE that many logistic networks have similarities in the components they consist of. Besides the library, the polymorphism of the specification language and the graphical design interface (making the building process more comprehensible for policy makers), a methodology is one of the main parts of the TASTE instrument, which reduces time and costs of the simulation building process. The methodology is a result of practical know-how acquired in several business cases. The steps of the methodology will be demonstrated in one of the business cases.

Furthermore the article will show an overview of the library of logistic components. As a concluding remark the wide range of logistic applications indicates that the TASTE instrument foresees in it's needs to analyse and to improve distribution networks.