

Integrating the Design of the Product Life Cycle by a Master Bill of Materials

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Abstract. A bill of materials (BOM) is a representation of the structure of parts and components in a product. The most well-known ones are the engineering (EBOM) and the manufacturing (MBOM). However, there are several more with various purposes throughout the lifecycle of the product. All BOMs are related to the part and component structure of the product but focus on different life cycle phases. They are often individually defined in product development creating a fragmented process. In this paper it is proposed to instead define a "master BOM" It is cross functional and includes all life cycle items. The master BOM has impact on the IT environment of a company as well as the organization of the work. In this paper, the creation and management of BOMs have been investigated in an industrial company. The IT environment of the company is currently heterogeneous, but there is a change towards a PLM centric environment. Results indicate that changing the IT environment and the structure of BOMs can integrate the different domains of the company better and facilitate the early phase assessment of the environmental impact of the products.

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