IWF

Institut für Werkzeugmaschinen und Fertigung
Institute of Machine Tools and Manufacturing

Harmonizing and synchronizing the life cycles of products and factories of the future

Keywords: factory of the future, life cycle management, development processes
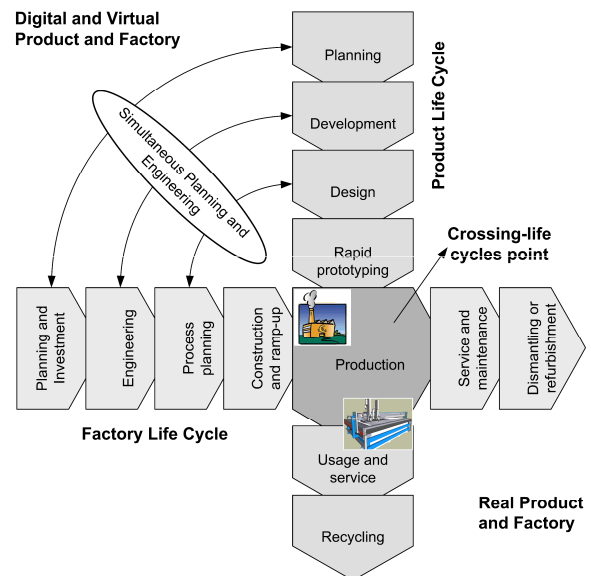
Abstract

In order to support the creation of new design methods for the factory of the future, its life cycle and the corresponding relation to a typical product life cycle has to be investigated with emphasis on the early stages. This work will provide the basis for a harmonization and standardization effort by comparing the life cycle philosophy for a factory with a typical product life cycle from literature. Furthermore this will work will gain insights regarding analogies in the underlying processes.

Background Information

The paradigm "factory as product" describes the idea that the factory and its development can be seen as a product, with similar life cycles (such as planning, construction, usage, maintenance and dismantling) and a similar development approach.

Methods originally designed for product development are increasingly applied to facility and production planning and in order to develop the production facilities in short times, strong links to the digital product data are established, allowing to use them directly for production planning.

Where it is feasible, the life cycles of products and factories of the future should be harmonized, synchronized and standardized as much as possible.

Workpackages

- Get familiar with paradigm "factory as a product" and the life cycle philosophy for a factory

- Consult relevant literature and make an in-depth review

- Compare your insights with a product's life cycle and with approaches from the literature

- Build representative process models and identify common elements

- Analyze possibilities for harmonization and standardization

- Documentation, mid-term and final presentation

Informationen & Administration

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