Planning and development of technical systems under consideration of the whole system lifecycle is a state-of-the-art procedure, which is well-established in practical use. For system engineers, the systematic inclusion of system lifecycle properties becomes increasingly important, because agile systems are required, which work optimally under current boundary conditions and can easily adapt to future requirements. Manifold system properties with specific dependencies within the observed system necessitate a systematic analysis to facilitate a targeted consideration in the early phase of development. Therefore we present a generic approach for modularizing systems depending on system lifecycle properties. Within a case study of automotive assembly a validation of this method was done and first implications were derived.

Stichworte:
System lifecycle properties; modularization; commonality; clustering, design structure matrix