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Ontology-based Process Reengineering To Support Digitalization Of MRO Operations: Application To An Aviation Industry Case

Clemens Gróf^{a,*}, Alexander Kamtsiuris^b

^aChair of Production and Operations Management, D-MTEC, ETH Zurich, Weinbergstrasse 56/58, Zurich 8092, Switzerland

^bInstitute of Maintenance, Repair and Overhaul, German Aerospace Center (DLR), Hein-Saß-Weg 22, Hamburg 21129, Germany

* Corresponding author. Tel.: +41-446-328-294; E-mail address: clgrof@ethz.ch

Abstract

After sales services are characterized by interlinked service provider and customer operations. Furthermore, proper management of data related to the physical product and its lifecycle is essential for proposition of value-adding services. In this article, we present a novel ontology-based approach for improvement of maintenance, repair and overhaul (MRO) processes, where the ontology captures information of industry standards and product-related data. By clearly defining relations, the ontology supports the digitalization of operations and utilization of data in operational processes of different stakeholders. The approach was developed and demonstrated by investigating data of a case from aviation MRO industry.

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