

DocumentID	241445
Vortragstitel	A Discrete Event Modelling and Simulation Environment for Applications in the TAM Context
Autoren	P. Förster
Preisträger	
Vortragssprache	englisch
Seiten	6
Veranstaltung	Deutscher Luft- und Raumfahrtkongress 2011
Veranstaltungsort	Bremen
Veröffentlicht in	Deutscher Luft- und Raumfahrtkongress, Tagungsband - Manuskripte, 2011; Seite 1221 - 1227; DGLR e.V.; Bonn; 2011
Stichwörter	Total Airport Management ereignisdiskrete Simulation
Abstract	<p>On basis of the Airport Collaborative Decision Making A-CDM the concept of the Total Airport Management TAM was developed by the DLR in the year 2006. As part of the business trajectory, the turnaround process, which connects the land- and airside, delivers the AOBT which is a substantial parameter of the A-CDM and TAM concept. In the view of A-CDM this parameter serves as a milestone and constitutes the time at which the aircraft is prepared and ready for the next flight. Due to the discrete event character of a lot of systems at the airport a discrete event modelling and simulation environment was developed. The modelling and simulation environment discussed in this paper is intended to meet the demands of a decision support tool in the TAM context. One application of the environment is a turnaround model which allows a better estimation of the AOBT. It also permits a what-if probing which is a crucial element of TAM concept. A further purpose of the environment is to improve the understanding of the system. The model based design methodology that can be applied to the presented environment enables the user to perform structural changes of the simulation model at different levels of detail. The presented environment was integrated in the TAM test bed facility at the DLR Braunschweig. The characteristics of the environment, such as compositional and hierarchical modelling will be illustrated with the example turnaround. The examples deicing and taxi movement are intended to demonstrate the modular character of domain specific function blocks which can be used freely within the environment.</p>