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A mobile enterprise cockpit for big data analysis and decision support

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Abstract

Today's decision-making processes in companies increasingly use the results of extensive big data analyses and their visualization. This requires appropriate visualization systems that enable flexible design and presentation of data evaluations in order to achieve insight in the meaning of the analysis results and their numerous dependencies of key figures and critical parameters. Such systems shall create transparency in decision-making situations and enable comprehensible and reliable decisions. This paper outlines the design and implemented use cases of a Mobile Enterprise Cockpit (MEC) as result of a research project carried out since 2015 together with several industrial partners. A MEC enables the visualization of decision-relevant company key figures and supports team-led ad-hoc analyses and simulations of management information within the framework of process analyses, business intelligence applications and big data applications. Small and medium-sized businesses in particular can use MECs as an easy to set up, easy to integrate and quickly adaptable system to prepare decisions in complex business processes. Implementations of the MEC as a reporting cockpit for supply chain management, as a visualization platform for waste reduction simulations and as a data analysis platform within the framework of big data analysis projects will be presented.

Keywords
Enterprise cockpit, data visualization, big data, decision support, supply chain management

Biographies

Alfred Wulff is a Professor, and Director of the Institute of Business Informatics in the Department of Management, Information and Technology at the University of Applied Sciences, Wilhelmshaven, Germany. He holds a German diploma in Mathematics. He worked for several years in large software development projects and was project manager of multinational R&D-IT projects subsidized by the European Commission. Within the scope of the European Spacecraft program COLUMBUS (European part of the ISS) he worked for the prime contractor and was responsible

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