

Bachelor's Thesis

Prototype and Evaluate a Solution for Asset Management

(practical / application-focused)

Description

In the context of our MigHANA research cooperation (<https://uol.de/en/vlba/projects/mighana>) and together with our project partner OOWV (<https://www.oowv.de/home/>), we are developing innovative approaches for information management within a heterogeneous system landscape.

An important entity for a water utility are technical assets (wells, pumps, pipes, valves, the process stages of wastewater treatment plants, etc.). To manage these assets (or their master data), two solutions are available and under review: Ultimo (<https://www.ultimo.com/us/>) and SAP EAM (<https://www.sap.com/products/supply-chain-management/asset-management-eam.html>). While the first solution requires less maintenance, the second solution would be better integrated into the existing system environment. The second solution (SAP EAM) is ready and prepared for use but has not yet been customized or filled with master data.

The project partner needs a prototype in SAP EAM to compare both solutions and to evaluate the benefits of integration with the current system environment.

Problem Statement

This work is about porting an already implemented solution (in Ultimo) to another system environment.

To do this, the student first must familiarize herself/himself with Ultimo (i.e., in the environment that has already been set up on a test basis). Parallel to this, she/he must acquire SAP EAM-related know-how. The student has access to comprehensive training materials, a "sandbox" where he or she can try things out, and expert support.

Subsequently, it must be clarified which further set-up work is required in SAP EAM to maintain asset master data in similar way. The setup work is to be carried out; exemplary data records are to be created.

The customer has decided to initially set up Ultimo on a test basis, primarily due to its easy adaptability and low overhead. Therefore, in parallel a) the one-time effort required to provide analog functions in SAP EAM is to be estimated and b) the effort to make certain ongoing adjustments in SAP EAM is to be evaluated.

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12.05.2022



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The customer will later use the prototype to judge whether any additional effort in the department is outweighed by company-wide benefits. However, this weighing of particular interests of the department against the overall interests of the company is not part of the thesis. The thesis merely provides the foundation for this.

Requirement(s)

The topic should be of interest for students, who would like to familiarize themselves with SAP SE's S/4HANA ERP solution. On the other hand, the tasks touches business administration-related topics (Total Costs of Ownership etc.).

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