

AN ENTERPRISE MODELLING APPROACH FOR THE EARLY SHIP DESIGN

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SUMMARY

In order to efficiently supporting the early ship design phase, the Enterprise Modelling Approach is adopted. The main motivation is its principle concept of data integration and interconnected process management being supported by functions like configuration, collaboration and change management, which in turn rely on version and rights management. Through this the state of a design can be monitored continuously in detail which is regarded highly important. Pre-defined Activities are introduced as a core concept to apply knowledge of the design process itself and at the same time guarantee a high flexibility and design freedom. The fundamental design tasks of the traditional ship design spiral are implemented through input, output, control and tool connectors. However, the underlying simultaneous nature of the design process, particularly in the early stage with frequent changes of any design aspect is supported by an integrated platform which enables a holistic ship design. A highly modular software system is built up in such a way that no restrictions to specific tools are imposed: all partners in a distributed design team will continue to apply any CAE-tool which best meet their requirements to efficiently perform the specific design tasks. The design of a Ro-Ro vessel shows the benefits of the implement CAE-work-bench.