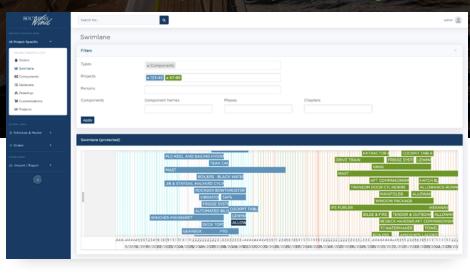
structr



PROJECT MANAGEMENT TOOL FOR COMPLEX PRODUCTS

How Southern Wind improves project planning with Structr



2021

Industry

Shipbuilding

Challenges

- Highly complex product with many components
- External factors and high degree of product customization require great flexibility
- Much data from heterogeneous sources to be integrated into one system
- Data sets with partly different designations, but overlapping content, in Excel lists

Solution

- Graph-based and centrally available project management tool as single source of truth
- Visual roadmap, to support planning of deadlines and responsibilities
- Overview to predict workload bottlenecks
- Flexible interfaces to Excel, Microsoft Business Central and other systems

Benefits

- Shared resource pool with real-time information
- Redundancy-free data storage
- Interactive, visual dashboards that are customized down to the smallest detail

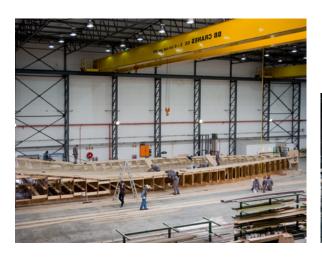
CUSTOMER

Southern Wind

Since its founding in 1991, SWS has specialized in the production of high-performance luxury superyachts. Each of the projects launched in the yard's history has resulted in successful mini-series, each of which in its own way has helped to cement SWS's solid reputation in the yachting industry.

Investment in research, product development and the latest design techniques have been paramount to SWS' technological innovation over the years.

As a result, the yard is fully self-sufficient in all aspects of yacht production, from lamination and steelwork to joinery, painting and interior finishing.







- For over 30 years the first choice for highly sophisticated customizable superyachts
- Focus on high quality and individuality
 - Perfected series construction methodology based on smart repeatability



CHALLENGE

Project Management Tool

A major challenge for this customer lay in the products themselves, because the yacht product alone is so complex that a comparatively high number of materials and requirements are associated with it.

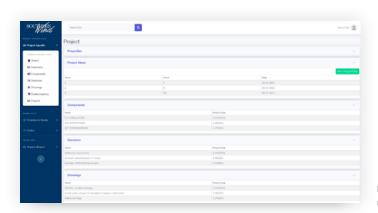
When the term "luxury" is mentioned, it is immediately clear that this is a product that goes far beyond the usual. And, as if the complexity were not enough, SWS offers the discerning buyers of such a luxury yacht the possibility to equip their boat according to their own individual wishes. Above all, these individual ideas are in no way predictable and require maximum flexibility and openness on the part of both the project team and the underlying planning tool.

In addition to the bill of materials (BOM) itself, project planning and coordination between the respective responsible parties – knowing who is responsible for the respective part or section, exactly which steps are required and when what has to be ready – is an elementary challenge.

In order to manage the data, which was previously available mainly in Excel files, efficiently and connected on one platform throughout the entire project phase, the shipbuilder SWS was looking for a new, flexible solution for its project management.

The scalability and speed of graph technology, combined with the advantages of a low-code-based platform, convinced the company of Structr.

Overall, the big challenge in this project was to clean up the data model. Until then, data was scattered in multiple data sources such as Excel sheets, e-mails, and other software systems, and was sometimes labeled differently even within a single data source. For example, the responsible persons were stored in different files under their first names, full names or abbreviated names, which ultimately resulted in multiple data sets when the data was merged. As a first step, it was therefore necessary to agree on a common format in order to be able to clearly recognize related data as such.

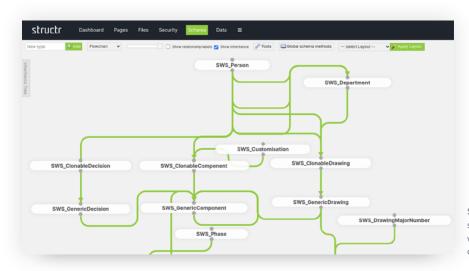


Project overview page as quick reference for project managers

Strategy

In this project, it was clear from the beginning that the topic of agility would play a more important role than the time aspect. The implementation of the new software was to take place in the different departments of Southern Wind at different speeds and with different requirements. This allowed Structr to perfectly play its advantage of agile software development.

The graphical view of the Structr schema provided great support during the definition phase. It enabled the customer – even without deep development knowledge – to see directly how they had previously mapped the data in the various Excel files and which of the parts listed therein were redundant or even illogical. The respective "problem cases" could thus be eliminated or solved quickly. In addition, it has opened up the possibility of defining further use cases for how the linked data could still be used.



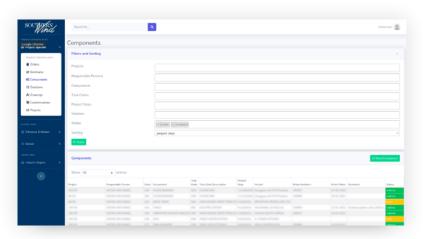
Structr's low-code Schema Editor supports developers and customers when discussing implementation details

Solution

As a result, Southern Wind has obtained a new, graph-based project management tool that is centrally available to all employees as a common resource pool (single source of truth). The data is stored redundancy-free on the basis of graph technology and is available in real time. The tool includes a clear overview of responsibilities and phases in the respective projects that is accessible to all. Interactive dashboards can visually represent the projects down to the smallest detail and are available to the entire project team.

To retrieve the roadmap and specific information of e.g. deadlines, process steps and responsibilities individually and quickly, Structr allows filtering and sorting based on lists and swimlane diagrams. In the same way, changes in time or responsibility planning can be made directly, considering all consequences. Programming skills are not required for this.

SUCCESS STORY | SOUTHERN WIND





Redundancy free storage of information is enforced via the schema and UI

Table allows filtering and sorting to create custom views for different use-cases

Looking at the workload of employees, the Structr tool offers the possibility to visualize not only an overview, but also a forecast of the capacity utilization and thus to identify workload bottlenecks in time. This allows employees to be relieved when there is a visible overload and others to be more involved when there is a surplus of capacity. Implemented solutions include:

BOM: visual editor for BOM in tree interface

- show bill of materials in hierarchy
- edit hierarchy

Schedule: visual editor for schedule planning in Gantt/swimlane interface

- show components, decision and drawings as timeline
- edit duration and time of items via drag-n-drop
- configure custom view on timeline via filters

Data Table: data in tabular form

- aggregate data from database in redundancy-free fashion
- update data across all tables
- configure custom view on table via filters and sorting

Excel Interface: file based Excel import/export

Microsoft Business Central (MS BC) Interface

- import data from MS BC into Structr
- show imported data in tabular fashion (with filtering and sorting)
- link MS BC data to other data within Structr (e.g. link parts to orders)
- periodically update imported data from MS BC with newest changes made within the Business Central system

Result

All in all, we worked closely with the client to sort out, clean up and restructure in a meaningful way.

Visualizing the data allowed the Southern Wind team to uncover hidden inconsistencies in the data connections. The new perspective they gained through visualization revealed insights that drove clarity in the company's structure and the elimination of redundancies.

The result is a database that creates a single source of truth of responsibilities and project steps and keeps the company clean, modern and focused on what matters. All data was named and assigned consistently. Dependencies were mapped correctly and data was stored redundancy-free in the graph database.

All project participants have gained access to a common resource pool with up-to-date information in real time and clear project plans. With the Structr solution, the SWS team benefits in many ways:

- Projects can be planned and implemented in a more targeted manner
- Errors caused in the past by redundant or inconsistent data are prevented
- Implementation takes place many times faster

Project work is facilitated by the detailed interactive dashboards that visually represent the projects down to the smallest detail.

The system also features an integrated and easy-to-use user interface, filtering and sorting capabilities that allow users to create custom views on the data and quickly find relevant items and a custom database of standard data that can be included in new projects.

The company can build on this basis in the long term and well prepared for the future.



Rendering of the SW105 Taniwha, the last yacht, SWS launched.

"Working with Structr you have a true sense of a partnership with common values and a shared goal. We had no experience or expertise in software development, but a clear idea of our process and what we wanted to achieve. I found the visual schema invaluable as this was used to map our business model, internal processes and how data is actually stored all in one. As a communication tool it forms a common reference point between client and developer and facilitates clear understanding in a very efficient manner. Using the schema we were able to quickly create a data model that mirrored the design brief, but also accommodate changes and new features along the way. I found the process rewarding and look forward to extending the application with the team at Structr."

--- Paul Dumbell

Process Engineering Manager, Southern Wind

ABOUT STRUCTR

The graph experts at Structr GmbH offer an integrated low-code development and runtime environment for web-based enterprise applications in which the entire definition of an application, from data model to business logic to user interface, is mapped in a graph database.

This unique approach enables unprecedented speed and flexibility in application development and maintenance, resulting in enormous time and cost savings. Structr stands for sustainable information management that creates good working environments.

The Structr team supports customers worldwide in projects and creates integrated, holistic solutions that can be easily expanded and adapted to individual circumstances at any time.

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