

The Ramboll Group Implements Powerful Web-Based Visualization and Collaboration into Document Management Platform



The Ramboll Group
Virum, Denmark
www.ramboll.com

Industry:
Engineering & Construction

Annual Revenue:
US\$500 million

Employees:
5,000

Oracle Products & Services:
AutoVue 2D Professional

Key Benefits:

- Allowed Ramboll to make ProjectWeb a powerful and complete document management and collaboration platform
- Improved project collaboration
- Shortened completion times of massive construction projects
- Reduced paper, shipping, and travel costs
- Expedited design reviews with real-time collaboration sessions

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– Lars Fuglsang, Senior Project Manager, The Ramboll Group

Expertise, quality, and a commitment toward sustainable development for people, society, and nature are the values that have propelled the Ramboll Group among the top 10 consultancy firms in Europe. With more than 5,000 employees dispersed in 97 offices worldwide, Ramboll is able to undertake the complete lifecycle of international construction projects from concept to completion, and further into operation and maintenance.

Lars Fuglsang, senior project manager at Ramboll Denmark, a business unit of The Ramboll Group, explained that such a prosperous situation could only be achieved through innovation and the use of cutting-edge software solutions. In a global and highly competitive environment, with project teams distributed across the globe, constantly evolving technologies, and increased pressure to reduce costs and accelerate project completion times, Ramboll had to rethink its entire business process to stay on top of the market. More particularly, the organization had to find ways to improve collaboration and communicate project information more efficiently to globally dispersed teams.

Creating an Efficient Web-Based Collaboration Platform

Ramboll took its first step in 1999 with the development of a home-grown document management system called ProjectWEB. ProjectWEB is a Web-based collaboration tool providing users with a clear structure to store, exchange, and share documents over the internet.

“ProjectWEB functions in such a way that the parties of a project have, at their disposal, an area on the Ramboll internet server, where they can file both project documents and other information of common interest,” Fuglsang explained. “Using an internet connection, they can access the documents from anywhere in the

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world. This is very convenient, especially when a project is managed in Denmark, engineered in India, and implemented in Norway.”

The system performed well and encountered a high level of acceptance among users; however it fell short on one front, according to some Ramboll development team members. The organization certainly shared documents in a more structured and efficient manner, but with two hundred projects running simultaneously, with many containing more than 40,000 documents, it was impossible to give everyone every application they needed to view and allow them to review documents.

“Even with the right application, some users could not access CAD data because it was too complicated to use,” Fuglsang added. “You can’t expect every stakeholder in a project to be an expert in CAD software.”

To overcome this problem, in 1999 the company decided to integrate the capabilities of a visualization solution into its ProjectWEB document management system.

“Consultancy is all about joint efforts. If we cannot effectively communicate, review, and modify information and ideas, our whole business activity is in jeopardy. It was crucial to find a visualization solution to leverage Ramboll’s collaborative Web-based practices.”

The Results: A Mission-Critical Solution

Ramboll chose Oracle’s AutoVue 2D Professional to deliver the capabilities the company needed, and over the past eight years, the company’s employees have used AutoVue 2D Professional within ProjectWEB for all the projects of the consultancy group. All 97 Ramboll offices can, by default, access and use AutoVue 2D Professional’s capabilities through the ProjectWEB application.

“Whether for large scale or small projects, Oracle’s AutoVue 2D Professional, combined with ProjectWEB, delivers seamless collaboration among our project team members all over the world. Engineers, architects, contractors, and regulators can use AutoVue 2D Professional to efficiently review and comment on documents and deliver feedback on the fiscal, technical, engineering, environmental, regulatory, and public issues inherent in each project.”

“We have been using AutoVue 2D Professional pretty intensively,” Fuglsang said, “AutoVue 2D Professional allowed us to make ProjectWEB a powerful and complete document management and collaboration platform. It is a real success story.”

Team members primarily use AutoVue 2D Professional to view 2D CAD drawings and PDF files. They also use the annotation and real-time collaboration features intensively. When drawings are ready, users upload them on ProjectWEB and make them available to all team members for review. Users can instantly access the file, even though they do not have the corresponding authoring application installed. They can then search text in CAD drawings using AutoVue 2D Professional’s Text Search function, mark files with comments and feedback, or expedite document reviews using the real-time collaboration.

“AutoVue 2D Professional is perfect to review documents, discuss potential changes, and rapidly resolve issues,” Fuglsang said.

AutoVue 2D Professional delivers tremendous benefits for Ramboll. By providing an all-digital collaborative platform, the combination of AutoVue 2D Professional and ProjectWEB has improved project collaboration, and shortened completion times of massive construction projects, such as the Royal Danish Opera in Copenhagen, Denmark.

AutoVue 2D Professional and ProjectWEB have also allowed Ramboll to replace time consuming, paper-based review processes, resulting in reduced paper, shipping, and travel costs. Fuglsang indicated that with AutoVue 2D Professional, printing costs in some projects have decreased by approximately 50%.

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The Future: A Building Information Modeling Approach

Today, Ramboll Denmark embeds AutoVue 2D Professional, Web Edition, in its ProjectWEB document management system. Users can seamlessly view 2D CAD, Office, and graphic documents directly from within the ProjectWEB environment. Ramboll is evaluating the possibility of upgrading its licenses to include support for 3D CAD models in its ProjectWEB platform.

Working in 3D is a must for the AEC industry, and most projects carried out by Ramboll already imply the use of 3D models. By integrating AutoVue's 3D functions into ProjectWEB, Ramboll will take another step toward the adoption of an efficient Building Information Modeling approach, facilitating the secure exchange of information in digital format, and giving architects, engineers, builders, and owners, a clear and global vision of their projects throughout the building lifecycle.

Why Oracle?

Ramboll considered several visualization solutions for its homegrown document management system, but only Oracle's AutoVue 2D Professional delivered the capabilities necessary to meet Ramboll's requirement for an efficient collaboration platform.

"We needed a solution that could view a variety of documents, created with different authoring tools, and allow multiple stakeholders to provide electronic feedback and comments. We also needed a system that could read native documents, which would allow us to cut down on the number of additional authoring applications and would eliminate the need to maintain multiple client-side viewers," Fuglsang said. "Oracle's AutoVue 2D Professional presented the triple advantage of the widest range of native document format support, robust annotation and collaboration features, and most importantly, a Web-based solution."

This latter requirement was crucial to leverage the capabilities of Ramboll's Web-based document management system. With AutoVue 2D Professional, Ramboll could seamlessly integrate the viewing, markup, and collaboration capabilities of the software with its ProjectWEB without installing anything on the client machines.

"The Web-based solution is ideal in terms of support and maintenance since we only need to install new versions once on the server. This is particularly convenient to keep up with new supported formats and updates, not to mention that it tremendously facilitates the access to AutoVue 2D Professional for casual users," Fuglsang said.

Implementation Process

Users at Ramboll learned how to use AutoVue 2D Professional in no time. Training was not necessary and Fuglsang indicated that few users needed to read the documentation before using the software.

“The learning curve for Oracle’s AutoVue 2D Professional is actually a simple vertical line. I just played with it during an hour and was able to get started,” Fuglsang added.

Formed in Copenhagen in 1945, the leading Nordic consulting group offers engineering, management, and IT services within various industries such as building and construction, infrastructure, waste, energy, etc. Ramboll projects include such infrastructure marvels as the Royal Danish Opera and the Icelandic National Concert and Conference Center in Reykjavik.