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OpenBuildings® Designer

Redefining BIM Collaboration and Efficiency

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The collaboration crisis in the AEC sector

In the fast-paced world of architecture, engineering, and construction (AEC), effective collaboration is often a critical challenge. Miscommunication, data silos, and inconsistent file formats lead to delays, errors, and costly rework. Notably, studies have found that rework can constitute anywhere from 9% to 20%* of a project's total cost.

Architects and engineers require applications that not only facilitate seamless data exchange, but also promote real-time collaboration and ensure data integrity across disciplines. What they need is a solution that can bridge the gaps between various teams and platforms while maintaining compliance with industry standards.

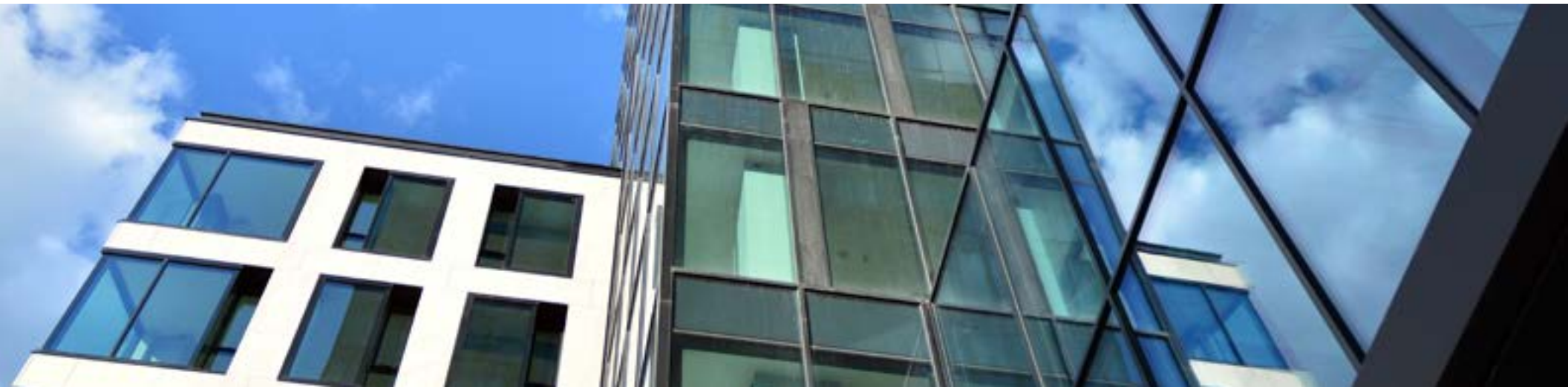
* Source: Dusty Robotics

Introducing OpenBuildings Designer: Your partner in collaboration and efficiency

OpenBuildings Designer is a comprehensive building design and energy analysis application tailored to address the most pressing challenges faced by AEC professionals. By focusing on interoperability, collaboration, and compliance, it empowers project teams to work seamlessly and achieve exceptional results. Here's how OpenBuildings Designer transforms the way you work:

- **Interoperability:** Supports open standards, such as Industry Foundation Classes (IFC), for efficient data exchange across platforms.
- **Collaborative workflows:** Enables real-time teamwork with a federated modeling approach and cloud-based tools.
- **Reliable data exchange:** Ensures accurate and consistent transfer of geometric, semantic, and property data.
- **Interdisciplinary coordination:** Integrates architectural, structural, mechanical, electrical, and plumbing design functionalities into a single file format for synchronized updates.
- **OpenBIM integration:** Offers robust support for formats including IFC 2x3 and IFC 4.0, meeting OpenBIM platform requirements.
- **Compliance with standards:** Adheres to industry standards, such as ISO 19650, for smooth collaboration and reliable project delivery.

With these capabilities, OpenBuildings Designer streamlines workflows, reduces errors, and fosters a culture of collaboration and efficiency.



Seamless OpenBIM compatibility for maximum interoperability

OpenBuildings Designer emphasizes interoperability by supporting open standards such as IFC. This interoperability allows for efficient BIM data exchange with other software platforms, ensuring seamless sharing of design information across applications. With this capability, project stakeholders can collaborate effectively, maintaining consistency in the design process regardless of the software used.

Addressed pain points

- **Data loss:** Mitigated by robust support for open standards.
- **Limited file type options:** Offers extensive compatibility for various file formats.
- **Complexity in handling multiple file formats:** Simplifies processes through standardized interoperability.

Empowering collaborative workflows for real-time teamwork

OpenBuildings Designer adopts a federated modeling approach, enabling a collaborative environment where multiple users can simultaneously work on the same BIM model. Features such as cloud-based collaboration and version control enhance real-time teamwork among architects, engineers, contractors, and other stakeholders. These features improve communication and coordination throughout the project lifecycle, reducing delays and minimizing errors.

Addressed pain points

- **Project delays due to lack of visibility:** Resolved with real-time updates and shared access.
- **High probability of errors:** Improved through effective collaboration and version management.

Reliable data exchange across all project phases

The software ensures the seamless exchange of comprehensive BIM data across disciplines and project phases. By supporting the reading and export of IFC files and other widely used formats, OpenBuildings Designer ensures consistent and accurate transfer of geometric, semantic, and property data. This capability helps maintain data integrity and alignment throughout the project.

Addressed pain points

- **Data integrity issues:** Reduced by ensuring accurate and consistent data transfers.
- **Errors during data transfer:** Minimized by robust format support and data handling.

Advanced interdisciplinary coordination for unified design

OpenBuildings Designer excels in interdisciplinary coordination by integrating architectural, structural, mechanical, electrical, and plumbing design functionalities into a single file format. This approach enables teams to synchronize design changes effectively across disciplines, reducing conflicts and errors during design and construction phases. Centralized control of data schemas ensures consistency and transparency across all project components.

Addressed pain points

- **Delays in project coordination:** Addressed through synchronized design updates.
- **High probability of collaboration errors:** Reduced by centralized and integrated data management.

Comprehensive integration with OpenBIM platforms

OpenBuildings Designer supports multiple file formats, including IFC 2x3 and IFC 4.0, essential for OpenBIM platforms and collaboration tools. This flexibility ensures compatibility where IFC deliverables are mandated, enhancing project outcomes and stakeholder collaboration.

Addressed pain points

- **Project coordination delays:** Improved with versatile data formats.
- **Collaboration issues and data loss:** Minimized by reliable IFC support.

Ensuring compliance with industry standards and best practices

OpenBuildings Designer adheres to industry standards and best practices for BIM data exchange. Frequently utilized in projects adopting ISO 19650 standards, the software ensures smooth collaboration and data sharing among stakeholders. Compliance with these standards is vital for maintaining consistency, ensuring safety, and enhancing future project opportunities.

Addressed pain points

- **Noncompliance with regulations:** Prevented by aligning with industry standards.
- **Safety concerns:** Addressed through adherence to best practices.
- **Impact on future project bids:** Improved by maintaining a reputation for compliance and reliability.

How Voyants solutions boosted ROI by 50% and delivered their design ahead of schedule

Bangladesh Regional Waterway Transport Project 1 – Shasanghat (New Dhaka) IWT Terminal

Voyants Solutions Private Limited | *Dhaka-Shasanghat, Narayanganj, Chandpur, and Barisal; Bangladesh*

While Bangladesh has seen a growth in passenger transport, the inland waterway transport (IWT) system needed improvement to efficiently transport 157 million passengers annually and ease traffic bottlenecks. The organization also wanted to enhance their infrastructure to keep up with international standards. Therefore, Voyants Solutions was tasked with developing four major IWT terminals to provide a low-cost, ecofriendly transportation system. The scope of the project included traffic assessments for the next 20 years, feasibility studies, project design, and construction management. With major terminals incorporating both land and marine elements that were slated for cities throughout the country, they needed to improve collaboration to meet the client's 30-day design completion goal.

With ProjectWise, Voyants Solutions monitored topographical surveys, traffic surveys, and geotechnical analysis to transfer them into the design platform. OpenBuildings Designer and STAAD® helped develop the architecture and structure design, with the interoperability between the two applications facilitating the creation of a strong visual design that helped all collaborators understand the scope of the project. They completed the initial design formulation in about a week, leaving only 21 days for the detailed design. By using Bentley applications, they submitted the completed design in 18 days, three days ahead of schedule, with a team of eight rather than the usual 15. The applications increased ROI by 50%. The 3D models used for design will be converted to 4D models to streamline and manage construction.

Take the next step

OpenBuildings Designer's features and capabilities position it as a preferred application for seamless BIM workflows, fostering collaboration, enhancing data integrity, and ensuring compliance with global standards. By addressing key pain points and providing robust tools for interdisciplinary coordination, the software drives project efficiency and success across various industries.

Transform your BIM workflows and elevate project outcomes with OpenBuildings Designer. Experience unparalleled collaboration, reliable data exchange, and industry-standard compliance.

Contact us today