3D Repo

Wood Wharf
Building a City in the Cloud

CANARY WHARF
CONTRACTORS

Figure 1: Federation of the Wood Wharf models from the 3D Repo platform. Watch the video about Wood Wharf by The B1M at https://youtu.be/SNXotuREZQ4

Wood Wharf

Started in February 2015, Canary Wharf's new district, Wood Wharf, has been designed to expand its commercial and residential space while adding vibrancy, culture, and community to the area. Lead by Canary Wharf Group, on completion of the project it will be one of London's largest privately-owned development sites.

3D Repo joined the Wood Wharf project after winning the Level 39 incubator, an initiative by Canary Wharf Group, creating the opportunity for 3D Repo to pilot their digital construction platform on the Wood Wharf project. Over 100 different design firms were appointed to develop the new district. Those using 3D Repo to collaborate include Allies & Morrison, Adamson Associates, WSP, and Sweco.

Transforming Collaboration

Traditional methods of communicating and managing issues across teams on a project of this size can be inefficient and cause delays to a project. Emails are easily lost, and a growing number of issues can become difficult to manage.

Despite using Asite for document management, the project also needed a design collaboration and coordination tool that would run directly in a web browser and in 3D. Hence, a collaborative Building Information Modelling (BIM) platform that could facilitate communication and manage design issues for large scale projects was required.

490,000 sq ft of hand-picked retail space

Up to 3,600 new homes

8 acres of riverside parklands and gardens

10 year development

"It's a whole new city within a city. It is creating the right development and the right location, with lots of integrated uses."

- Mark Taylor
Director, Canary Wharf Contractors

Streamlining Project Management

Working with senior executives at Canary Wharf Contractors, the Issue Tracker was developed on top of 3D Repo's existing cloud-based platform, allowing users to drop pins in their 3D models to identify issues and assign them to various parties on the project. Designed to replace inefficient email exchange and data federation, users can login to 3D Repo via a web browser and access their models and issues from anywhere. Issues are highlighted with a colour specific to the team it has been assigned to, and all communication is recorded in the platform so anyone can track its progress.

Richard Bray, Project Executive at Canary Wharf Contractors and his team use 3D Repo during all design coordination meetings to track and manage issues, cutting out the need for email exchange and meeting minutes. Issues are recorded during design coordination meetings, which also sets the agenda for the next meeting, saving time and reducing errors. The 3D Repo platform keeps all communication transparent and holds all parties accountable for their assigned tasks and actions.

Save Time

Reduce Errors

Accountability & Transparency

"Looking at the 3D model in 3D Repo before a meeting, I can set an agenda. Through the meeting I can do the minutes. After the meeting each person is clear with what tasks they have to do to clear all the design issues off the 3D Repo platform."

- Richard Bray
Project Executive, Canary Wharf Contractors

Figure 2: An illustration of what Wood Wharf might look like on completion of the construction project.

The Digital Construction Platform

Further features were developed to expand the potential of the 3D Repo platform including, change detection, clash detection, progress tracking and data analysis, and SafetiBase.

3D Diff – Change Detection

3D Diff was developed to compare the geometry of a 3D model in real-time and present changes graphically to the user. 3D Diff can detect changes regardless of file type or underlying data structure, or even if model revisions were created in different modelling applications.

Instant Clash – Clash Detection

Instant Clash automatically identifies and highlights intersections, and therefore potential conflicts between different types of models. Unlike existing solutions in the marketplace that highlight whole objects that clash, the 3D Repo solution detects and visualises exact intersection points wherever they appear for a clearer picture of the issue. Project partners and stakeholders can login via their web browser to access this information at any time irrespective of location or time zone.

Progress Tracking & Data Analysis

Stakeholders are able to access project data to help visualise the progress of a project, and to make informed decisions. With 3D Repo, users can link their model data with business intelligence tools such as Power BI and Dynamo for live analytics.

SafetiBase

3D Repo's health & safety tool, SafetiBase allows users to identify issues and potential hazards with the model before any people set foot on site. These issues are then assigned to the appropriate person or team to find a solution to the problem and mitigate any risk to make for a safer build. SafetiBase conforms to the specification for 'collaborative sharing and use of structured health and safety information using BIM' (Publicly Available Specification PAS 1192-6).

The A1 Tower, federated model in the 3D Repo platform.

"Where 3D Repo helps is to understand really what's going on in detail, making sure we don't lose sight of clashes and allowing the team to concentrate their efforts in to where it's going to have the biggest impact."

- Steven Smith
Associate Director, Canary Wharf Contractors

Get in touch today

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