



Building Envelope Council Ottawa Region

Webinar Session

Wednesday, March 5th, 2025

1:00 PM to 2:00 PM

Developing Canada's Digital Twin platform, a national open-source BIM/GIS platform

Despite BIM's promise to enhance collaboration, the AECO industry still relies on proprietary solutions and closed file formats, limiting accessibility and interoperability. To address this, CIMS and Collab Digital Twins (CDT), a not-for-profit organization, are developing an open-source digital twin platform to make data easily accessible to all stakeholders and citizens, regardless of their ability to use licensed software. The 100% free and open-source platform enables users to integrate multiscale and multidisciplinary datasets through a web browser, supporting BIM and GIS data uploads and integration with various data sources. CDT has been established to ensure the platform's long-term sustainability and development. The platform augments productivity by providing lightweight visualization of models and geospatial data, offering superior presentation capabilities, enhancing interoperability, fostering collaboration, and allowing simultaneous multiscale and multidisciplinary data querying. This approach aims to drive innovation in data visualization and management for the AECO industry.

Nicolas Arellano Risopatron, Carleton University – Research Lead of CDT



Nicolas Arellano Risopatron is a Ph.D. candidate at Carleton University (Ottawa), focusing on coding and open-source tools for architecture representation. In his research called de-black boxing BIM. He holds a Bachelor's in Architecture from Pontificia Universidad Catolica of Chile, specializing in "Systems and Technologies" and is certified in "Developing BIM Projects". He is a research team lead at the Carleton Immersive Media Studio (CIMS), leading Canada's Digital Twin project. He is a contract instructor at Carleton University, where he teaches coding and open-source GIS/BIM tools to architects. He is the director of research at the Digital Built National Capital Region (dbNCR).