News Alert

Bentley Systems Announces New Capabilities for Carbon Assessment in iTwin Experience

Capabilities Unlock Carbon Data Management for Infrastructure Projects

EXTON, Pa. – June 26, 2023 – Bentley Systems, Incorporated (Nasdaq: BSY), the infrastructure engineering software company, is announcing at the Environment Analyst Global Business Summit, the availability of new carbon assessment capabilities in iTwin Experience to enable infrastructure professionals to seamlessly quantify carbon reduction opportunities in their projects. The Summit takes place June 27 and 28 in Chicago.

With the new capabilities, infrastructure professionals can fully automate embodied carbon calculation reports and impact analyses by taking advantage of iTwin Experience, enabling them to explore multiple design choices faster and eliminate manual data exports and normalization.

In 2022, Bentley developed an integration service in the iTwin Platform to automate the process of generating embodied carbon reports for infrastructure projects via One Click LCA and EC3. Reports are initiated using the iTwin Platform and then viewed in One Click LCA or EC3. Now, iTwin Experience provides a ready-to-go, bi-directional integration with EC3, enabling carbon assessments to be visualized in a digital twin without the need to write code. iTwin Experience exports a data model to EC3, a free tool for which users need to be separately registered, which performs the embodied carbon calculations and returns results that iTwin Experience seamlessly reads and visualizes.

Organizations that want to include carbon assessment workflows in their infrastructure projects without developing proprietary iTwin-powered apps will benefit from the newly available carbon calculation capabilities in iTwin Experience. The capabilities also unlock the integration of carbon assessment workflows with other Bentley products and solutions for designing and managing infrastructure projects.
The capabilities are being released in Preview and will be available for a restricted number of partners and early adopters.

Kaustubh Page, Director of Product Management with Bentley Systems, said, “Lifecycle assessments, environmental footprint analyses, and reports are becoming standard requirements for infrastructure projects worldwide. Designers and environmental engineers spend critical time generating environmental assessments or reports. Because the required data needed to be manually exported from multiple design authoring tools and then aggregated and verified, generating these environmental assessments has been a time-consuming and potentially error-prone process. With these new capabilities built into iTwin Experience, it is feasible to transform what is typically a six-month process into a six-minute workflow. Our goal is for iTwin Experience users to spend their valuable time on designing, optimizing, and making better decisions, faster – not exporting, aggregating, and validating data.”

Rodrigo Fernandes, Director of ES(D)G with Bentley Systems, said, “We want to enable users to implement carbon analysis and optimization as a natural, repeatable, and standardized procedure, as part of managing every type of infrastructure project, anywhere in the world. The sooner that carbon assessment is integrated into an infrastructure project, the bigger the carbon reduction opportunities will be. This announcement is focused on embodied carbon, particularly relevant in the early project stages, but iTwin Experience unleashes opportunities for telling the whole ‘carbon story’ of an infrastructure project and asset. We are genuinely unlocking environmental footprint assessments powered by infrastructure digital twins.”

Mark Tablante, Design Technology Director with Burns & MacDonnell, said, “Electrification is a critical component to meeting the world’s decarbonization goals. There is a tremendous amount of capital investment needed in electric T&D infrastructure and a carbon-efficient design makes the most of every dollar spent to further decarbonization. Tracking and reporting on progress toward utilities’ net zero goals is important to not only their shareholders, but for the future of our world. Burns & McDonnell is working with Bentley to test their new iTwin-powered carbon reporting capabilities for the electric utility industry. Our sustainability engineers and environmental group are proud to work with our clients and technology partners to help develop vendor agnostic solutions for a brighter future. We look forward to integrating these services and continuing helping our clients track carbon and reach their net zero goals.”
**Image 1:**

Embodied carbon impact calculation from EC3 visualized in iTwin Experience. Design elements are color coded based on the severity of realized embodied carbon. *Image courtesy of Bentley Systems.*

**Image 2:**

Design elements in logical groups for embodied carbon impact calculation. *Image courtesy of Bentley Systems.*
The new capabilities in iTwin Experience transform what is typically a six-month process into a six-minute workflow. Image courtesy of Bentley Systems.

Video Carbon Calculation Capabilities – iTwin Experience

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About Bentley Systems

Bentley Systems (Nasdaq: BSY) is the infrastructure engineering software company. We provide innovative software to advance the world’s infrastructure – sustaining both the global economy and environment. Our industry-leading software solutions are used by professionals, and organizations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, mining, and industrial facilities. Our offerings, powered by the iTwin Platform for infrastructure digital twins, include MicroStation and Bentley Open applications for modeling and simulation, Seequent’s software for geoprofessionals, and Bentley Infrastructure Cloud encompassing ProjectWise for project delivery, SYNCHRO for construction management, and AssetWise for asset operations. Bentley Systems’ 5,000 colleagues generate annual revenues of more than $1 billion in 194 countries.

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