EarthCam 4D is like a time machine for construction projects
Bringing camera imagery into digital twins allows users to scroll though time on ‘4D’ models.

By Cara Lauter February 2, 2022

EarthCam, a leading provider of webcam technology and services, today introduced EarthCam 4D, empowering virtual design and construction (VDC) teams to overlay and synch live imagery with their digital twins. An intuitive time-line function allows users to scroll backward and forward in time to view live imagery in relation to their 4D models. EarthCam 4D premiered at Bentley MOMENTUM, the developer showcase for digital twin solutions held at the end of January.

Bentley Systems’ have been talking about 4D construction for some time now. The ability to see the past, present and future of a digital twin, in an intuitive way has been the goal of Bently Systems’ SYNCHRO. EarthCam joins the growing innovation ecosystem building digital twin applications on the Bentley iTwin platform.

EarthCam 4D augments Bentley Systems’ SYNCHRO 4D models with high-resolution photos from multiple cameras throughout the jobsite, overlaid in precise alignment. Viewers can zoom in and out, and the associated live images remain synched. Unique transparency/opacity and model color adjustments enable new and powerful ways to compare and contrast models with reality over time.

EarthCam 4D is reported as the first solution that fully synchronizes time-sequenced images to 4D planning models - stakeholders no longer need multiple software interfaces and different stored image sources to access this critical comparative information.

“Digital twins are radically increasing productivity in construction,” said Brian Cury, CEO and Founder of EarthCam. “Thanks to Bentley iTwin, we’re able to merge the highest resolution imagery from our cameras to SYNCHRO 4D models, and build valuable applications to increase our clients ROI.”

“EarthCam 4D is a great and quick tool to help communicate project schedule with our customer, trade partners and public,” said Michal D Wojtak, Mortenson’s Integrated Construction Director for sports and entertainment. “The ability to easily compare current and future states of work is valuable to project leadership teams.”

“The partnership between EarthCam and Bentley is bringing construction digital twins to life by simplifying the visual communication of project status to all stakeholders. Now anyone can compare what is happening on the jobsite to what was planned virtually within a simple web viewer powered by Bentley’s iTwin technology. By mixing 4D models from SYNCHRO with EarthCam’s reality models, all stakeholders on the project can quickly see the progress of the project, identify issues, and keep the project on time and on budget from anywhere,” said Rich Humphrey, VP, Construction, at Bentley Systems.

According to FMI, 13% of working hours are spent looking for project data and information. Having real-time imagery synched with a SYNCHRO 4D model in a single interface provides immediate, real-time evidence of every steel beam placement, and every window installation against 4D models, simplifying project management for SYNCHRO users worldwide.