



GET TIME ON YOUR SIDE

Learn how key roles in a construction firm use Bentley's SYNCHRO construction portfolio to solve the everyday challenges that they face while saving time at each stage of a project.



SYNCHRO[™]

Virtual Design and Construction Engineer or Planner

The Challenges

- The average construction project runs 20% over schedule.¹
- It can be difficult to convey the plan to the execution team, resulting in costly errors.

1. The construction productivity imperative, McKinsey & Company, 2015.

The Solution

SYNCHRO enables virtual design and construction engineers and planners to deliver better plans that ensure optimized resources and improved project outcomes by delivering:

- *An easy environment to manage aggregate construction models*
- *4D models to validate how the project will be built*
- *4D project simulations to better communicate to project teams*



Estimator

The Challenges

- The average construction project sees an 80% budget overspend.¹
- 40% of pre-bid resource days are spent on QTO.²
- Using Excel sheets and take-off from 2D plans is time intensive and error prone, making it easy to either lose a bid or win projects that will not make money.
- 3D models are complicated to use for QTO and estimation, and design models do not represent how the project will be constructed.

1,2. The construction productivity imperative, McKinsey & Company, 2015.

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The Solution

SYNCHRO enables estimators to more quickly and accurately complete QTOs, ensuring that you win more projects at higher margins by delivering:

- *3D models that can be split up into constructible pieces that represent how the project will be built*
- *Cost codes and quantity calculations into model objects so that estimators can rapidly create error-free quantity reports*







From Design to Build

Experience a complete workflow, from Bentley's design software through to the SYNCHRO construction portfolio, to deliver a construction digital twin.

Project Manager

The Challenges

- The average project has over two million documents and six million tasks to manage.¹
- Data is often not structured and in disparate systems – as a result, teams only use about 4% of available data and spend half of a day looking for that information.
- When a project manager determines that the project is not in control (either budget or schedule), it is often too late to react and adequately mitigate the issues.
- It is difficult to ensure that everyone is on the same page at all times, resulting in errors, rework, and extra costs.

1. The construction productivity imperative, McKinsey & Company, 2015.

The Solution

SYNCHRO enables project managers and project executives to have one place to access, capture, manage, analyze, and collaborate on data and workflows, ensuring that projects stay in control, on budget, and on schedule by delivering:

- *Managed and organized data and documents in project context*
- *Managed tasks, including issues, RFIs, and submittals*
- *Controlled data access and creation based on the role and organization*
- *Business analysis with reports and dashboards based on real-time project data*



Field Engineer

The Challenges

- Data is captured in an inconsistent manner through disconnected systems, leading to time-consuming reviews and inaccurate reports.
- Outdated design data is near-impossible to track down, increasing the risk of construction errors.

The Solution

SYNCHRO empowers field engineers with consistent and automated processes to capture, store, and track information by delivering:

- *Consistent data capture through configurable construction forms*
- *Automated workflows with timely reminders*
- *Offline capabilities for data capture and document access, including 3D and 4D models*
- *Up-to-the-minute reports with accurate tracking*



Superintendent

The Challenges

- When an issue occurs on site, delays arise before the issue is resolved or escalated.
- It can be challenging to make sure everyone is working safely.
- Field directions are not communicated efficiently, resulting in delays.
- Training is delayed and does not happen at the correct time.

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The Solution

SYNCHRO enables superintendents to better coordinate and plan activities that improve project outcomes by:

- *Communicating job tasks efficiently and immediately to complete tasks on time or ahead of schedule*
- *Ensuring issues are resolved before they affect project schedule*
- *Having complete, real-time insight to what is transpiring in the field*
- *Instantly reviewing and managing safety concerns*



Foreman

The Challenges

- Project progress updates to leadership are slow and unstructured, leading to inaccurate reports that are outdated by the time that they reach the office.
- Issue reporting and tracking from the field are inconsistent while status updates are sporadic, which could lead to costly emergencies or work stoppages.
- Crew coordination is disorganized and erratic, causing potential safety and right-of-way issues.

The Solution

SYNCHRO enables foremen to communicate, track, and resolve issues from the field in a timely manner for improved project outcomes by delivering:

- *Consistent data capture through configurable construction forms with photo capture and a mapping tool for added context*
- *Offline capabilities for data capture and document access, including 3D and 4D models*
- *Automated ball-in-court tracking to ensure that no issue is ever dropped*





SYNCHRO™

Get Time on Your Side

A complete portfolio of integrated software and services for digital construction management



SYNCHRO



FIELD

Field
Management



CONTROL

Project
Management



4D

Planning &
Virtual
Construction

Visit www.bentley.com/synchro to learn more about SYNCHRO today.

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