CS501294

The Secret Sauce to Effective Construction Cost Management

Adam Schilling, Project Designer
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Ian Turner, Senior. Product Manager - Cost Management
Autodesk Construction Solutions

Josh Cheney, Senior Manager - Strategic Alliances
Autodesk Construction Solutions

Learning Objectives

- Get inspired to move cost management to the cloud.
- Learn about innovative features like performance tracking.
- Learn about new ERP integrations.
- Hear straight from our customers about the success they've experienced with Cost Management in Autodesk Build.

Description

Sick of low margins and high risk? Get control of your project costs and gain visibility into real-time information with the cloud. Join this session to learn about robust cost-management capabilities within Autodesk Build software, innovative new features, and ERP (enterprise resource planning) integration availability. Improving cost management practices can transform your projects, lowering risk and increasing profitability.

Speaker(s)

Adam Schilling, Arcadis - Project Designer
Adam Schilling has 16+ years of experience in creating design drawings and developing methods for seamless integration of data between cloud-based collaborative solutions and design software. His agility enables him to work outside of his daily responsibilities to develop cutting edge technologies and workflows to increase the ability to work collaboratively in a global workplace.

Josh Cheney, Autodesk – Senior Manager, Strategic Alliances

Josh Cheney is part of Autodesk Construction Solutions at Autodesk, with a specific focus on the Integrations and ERPs. Josh has over 18 years of construction/construction tech experience, and a focus on ENR 400 firms. Relevant Experience and Highlights

- Viewpoint Construction Software – Construction-specific ERP
- ISEC, Inc. – International Specialty Subcontractor
- BuildingConnected – Bid Management Software
- Procore – Construction Management Software
- Autodesk – Project Lifecycle Management Software

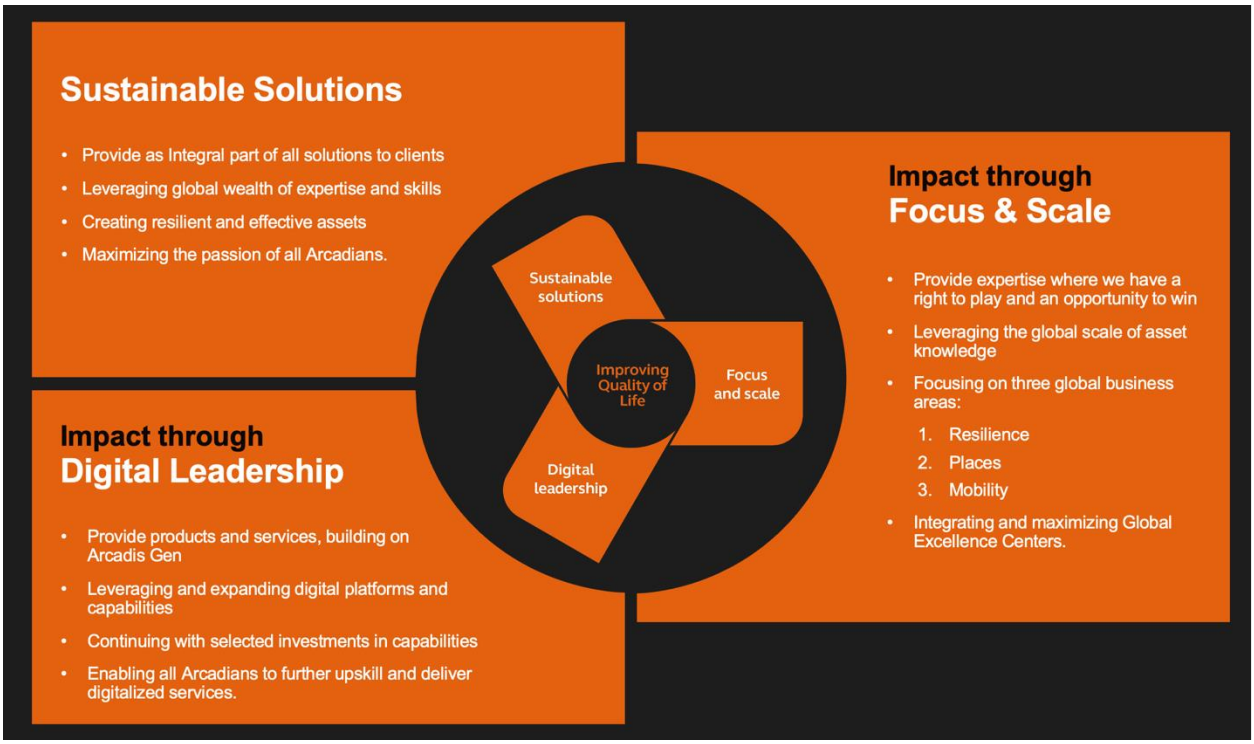
Ian Turner, Autodesk – Senior Product Manager, Cost Management

Ian Turner is part of Autodesk Construction Solutions at Autodesk. Ian is a Senior Product Manager with a specific focus on Cost Management. He was a construction estimator for over 17 years before switching to a mixture of implementing, selling, and product managing 5D virtual construction software for the past 17 years.

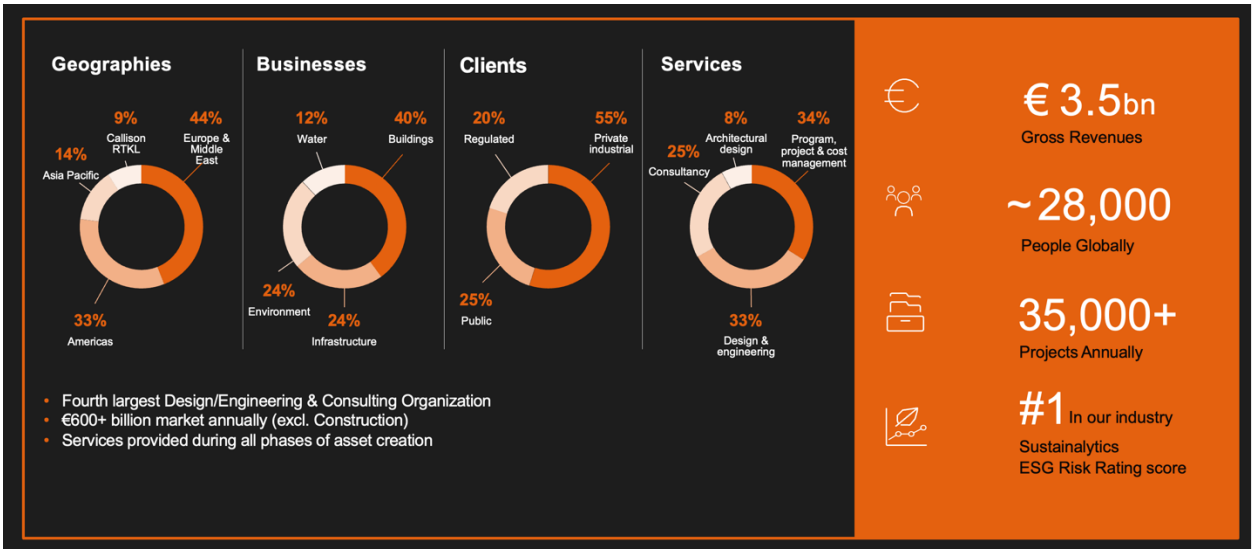
About Arcadis

Arcadis is the leading global design and consultancy organization for natural and built assets. Arcadis is focused on delivering results that are sustainable and resilient, digitalized and efficient, scalable, and human centric. This strategy will help us achieve our objective as well as those of our clients. It will be achieved by the following 3 key areas of our business:

- Focus and scale
- Sustainable solutions
- Digital leadership



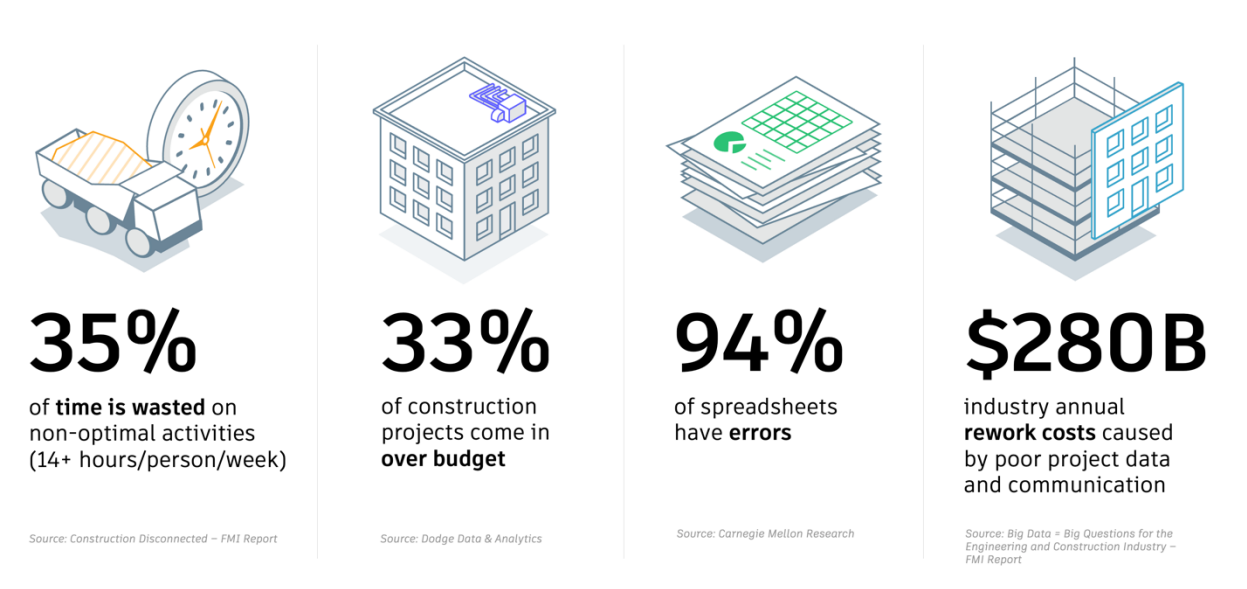
Arcadis at a Glance



Learn More:
[Arcadis Website]
[Arcadis Solutions, Sectors, & Capabilities]
[Arcadis 2021 – 2023 Growth strategy for a changing world]

Objective 1: Get inspired to move cost management to the cloud

Industry-wide there is an opportunity for cost management optimization.



Today, teams are spending a substantial chunk of time on activities that take away from them doing their jobs. For example, FMI reported over 14 hours are lost per person weekly on non-optimal activities like fixing mistakes, rework, or looking for information. Additionally, 33% of projects still come in over budget. This tells us cost overruns have become an expected part of projects despite their negative impact on already-thin profit margins. Excel was a gamer changer at one time, but today its use should be limited. With 94% of spreadsheets having errors, it's risky to have teams rely on spreadsheets to manage cost information. Lastly, Rework has become an expensive industry standard with poor project data and communication, causing the industry an annual rework cost of over $280 billion.

Ask yourself this… If you continue managing cost activities as you are today… will you stay ahead of the competition in the future and be able to maximize profitability?

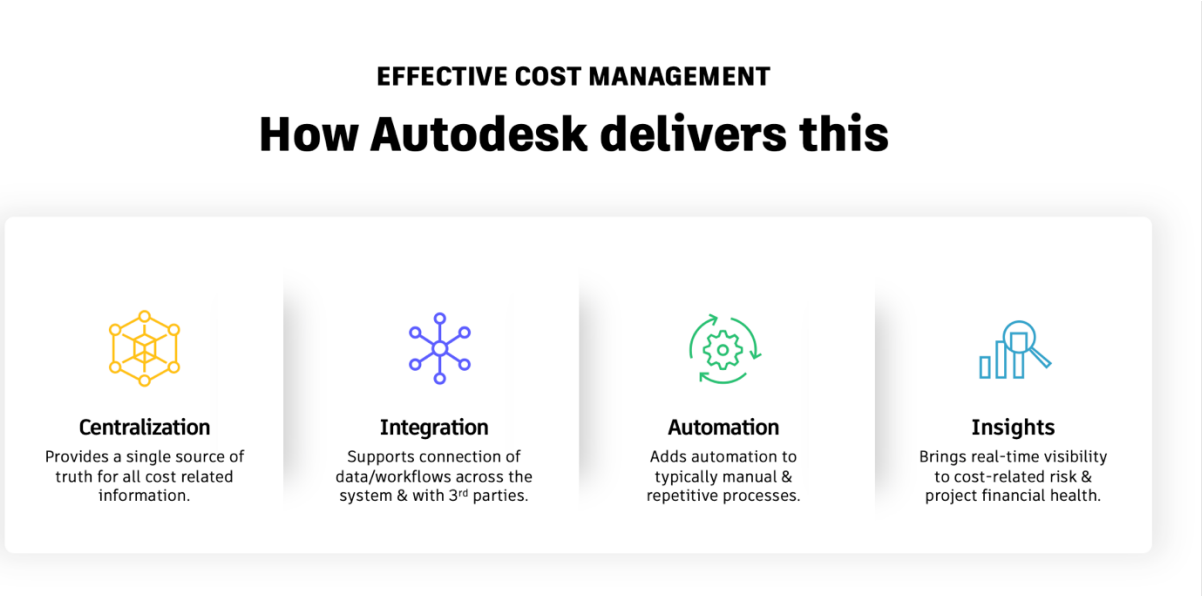
Learn More:

Why Construction Needs an Effective Cost Management Solution

The Construction Cost Control Toolkit

Position Yourself for Success

Companies that implement software that connects cost-related workflows, data, and teams will improve productivity, reduce financial risk, and gain a significant advantage over the competition.



Here is how Autodesk delivers effective cost management:

- We centralize the management of all cost activities in a common data environment, increasing access to needed information to make informed decisions quickly.

- We connect data and workflows across the system and third-party applications like your account system to synchronize critical financial data between the office and the field. This eliminates duplicate data entry and increases access to accurate, up-to-date information for improved forecasting.

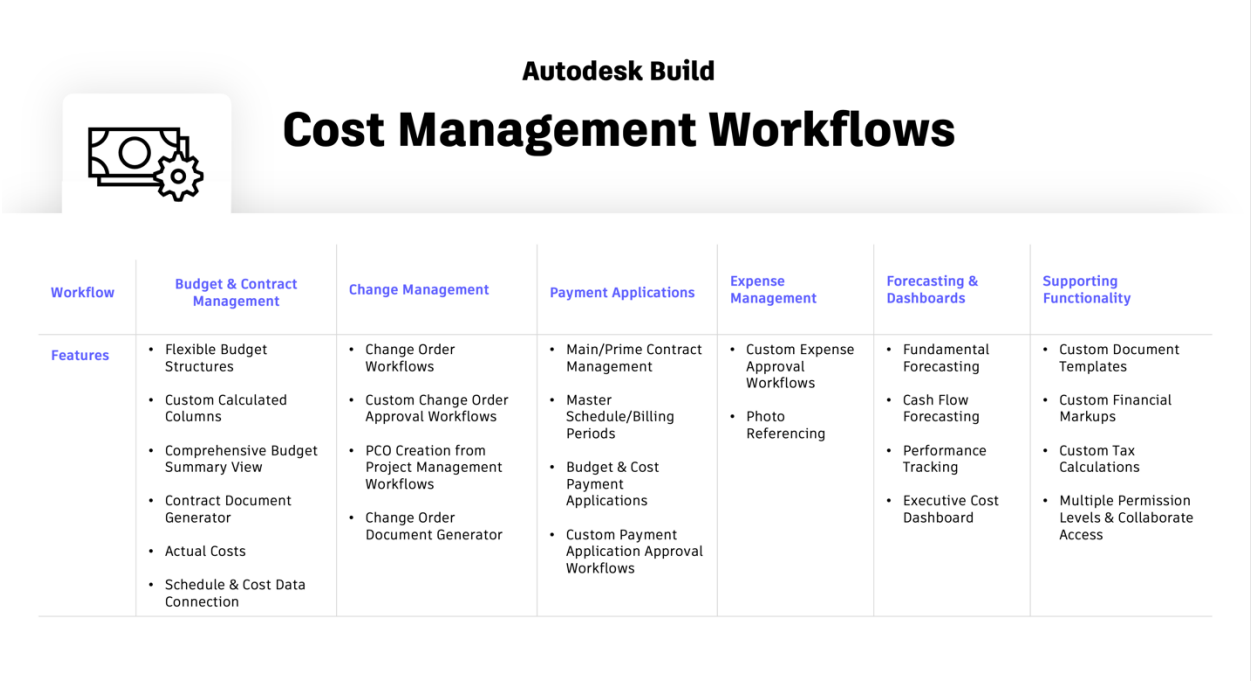
- We add automation to typically manual and repetitive processes helping to increase productivity.

- We bring real-time visibility to cost-related risk and provide an accurate view of project financial health, enabling teams to make necessary adjustments to maintain profitability.

Cost Management with Autodesk Build

Included in Autodesk Build is a robust set of cost management capabilities purpose-built for construction teams. Enabling teams to improve cost control, gain real-time visibility of cost-related risks, and forecast accurately by centralizing all cost activities in the cloud and within the context of the project.

Learn More:
Cost Management Overview Video
Cost Management Workflow Guide



Key Cost Management Functionality in Autodesk Build

Flexible Budget Structures: Set up custom budget structures that work with any accounting system and work breakdown structure.

Terminology Customization: Customize the terminology used throughout the system to suit your needs and preferences, including tool and tabs names.

Financial Markups: Create multiple project level markup configurations to apply to potential change orders, request for change orders or owner change orders before submitting to the owner.

Document Templates: Manage your own document templates using field names we can populate directly from the system to quickly generate standard format documentation for distribution.

Contracts & Contract Generator: Easily create, edit, and view supplier contracts using the details fly-out panel. Streamline the contract document creation process with the contract generator to compile appendices from multiple locations into a single package.

RFI to Potential Change Order: Track the origin of the change orders by creating a potential change order from an RFI or link existing RFIs to potential change orders.

Custom Approval Workflows: Utilize a decision-based workflow engine to create approval workflows to automate the approval routing of owner change orders, supplier change orders, contracts and cost payment applications based on specific conditions before sending to external recipients.

Streamline Change Orders: Manage all aspects of the change order process including logging and detailing all potential change orders, upstream budget request for change orders and formal owner change orders and downstream request for quotations, and supplier change orders.

Payment Applications: Effortlessly create and manage payment applications for owners and suppliers, connect payments to contracts, and automatically generate payment documents.

Tracking Actual Costs: Streamline the management of expenses by establishing a bi-directional relationship with your accounting system.

Method Related Cost Planning: In a Gantt type view, easily plan schedule related allowances such as General Conditions. Adjust the duration, unit rate and time allocated to the job to better plan the allowances with the ability to view actual costs vs. planned.

Forecasting: With all cost activities automatically pulled into the overall budget summary, gain have clear visibility into cost impacts, with a few clicks easily make necessary forecast adjustments.

Cash Flow Forecasting: Connect schedule tasks to budget items, perform forecast distributions, and access a project-level cash flow analysis with a dynamic time-versus-money chart for better visualization.

Performance Tracking: Ability to analyze productivity and cost data to gain near real-time visibility into the potential risk.

Controlled & Collaborative: Through user, role, and company-based permission levels easily control who has access to specific information. Bring owners and suppliers into the system to increase collaboration and streamline workflows.

Integrated: Integrate accounting data from your ERP system with your cost data in Autodesk Build, keeping your project and accounting teams in sync and your financial information completely up to date. Leading to better visibility and informed decision-making.

What does moving to cloud-based Cost Management mean for you?

Business Outcomes

- Reduced cost-related risk
- Stable cash flow
- Reduction in non-recoverable costs
- Maximum profit
- Lower insurance premiums
- Strong client relationships
- Repeat business

User Outcomes

- Stronger cost control
- Streamlined processes
- Proactive risk management
- Accurate forecasting & planning
- Stronger communication
- Job satisfaction

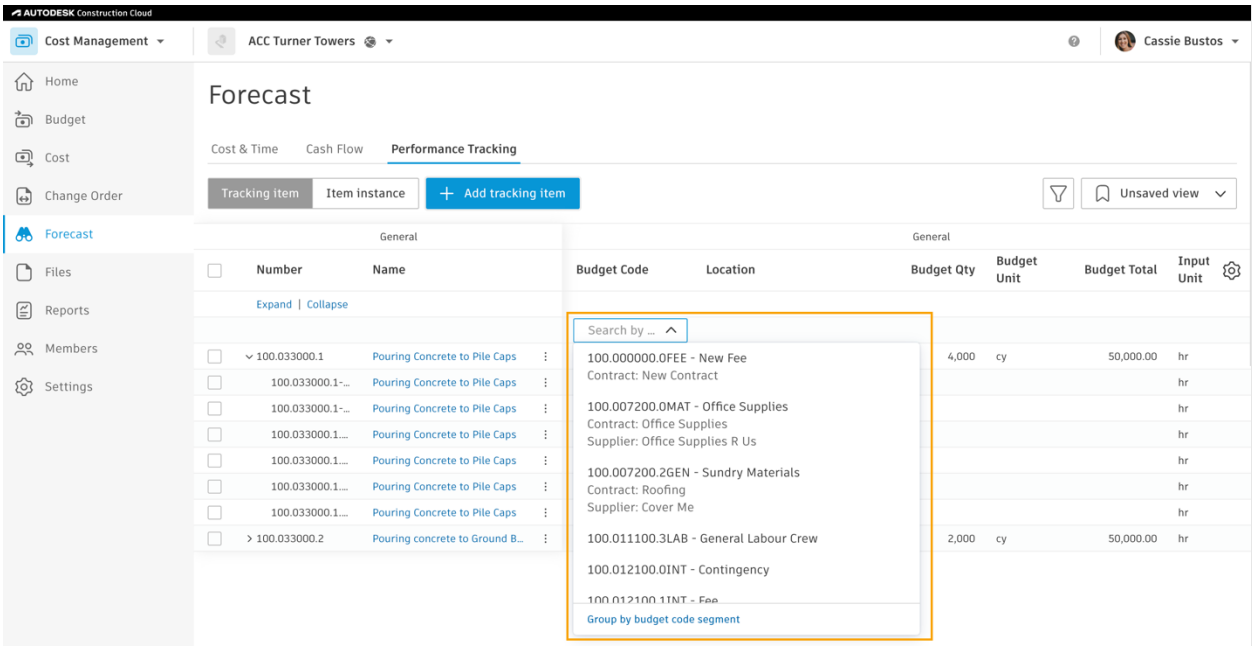
Objective 2: Learn about innovative features like Performance Tracking

Performance Tracking with Cost Management

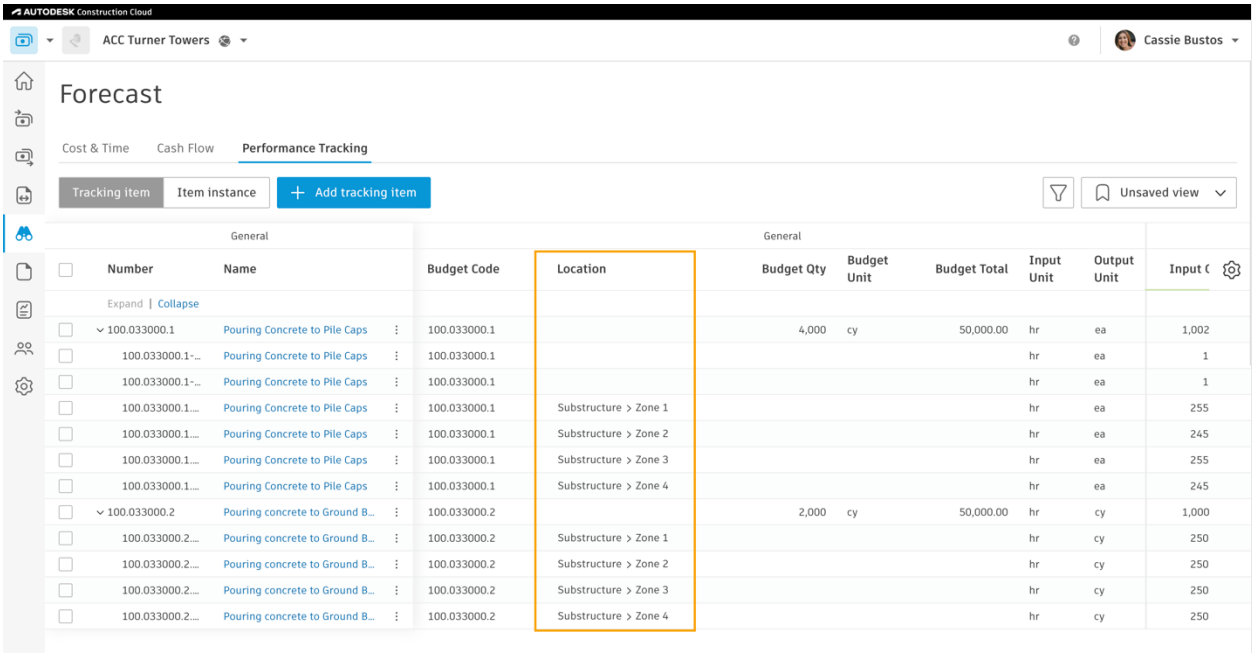
With the new Performance Tracking toolset in Cost Management, contractors can analyze productivity and cost data to gain real-time visibility into the potential risk of schedule delays and cost overruns to enable accurate forecasting.

Here's how it works:

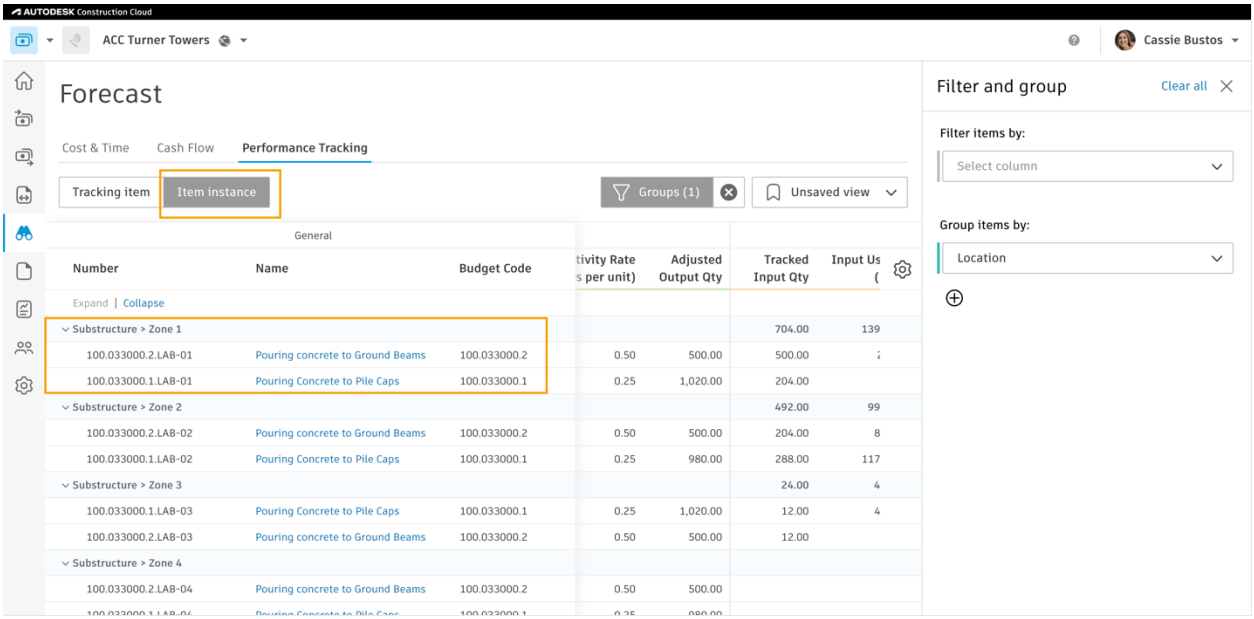
To connect labor data to budget codes, select Add tracking item. Then select the budget cost codes from the drop-down. Streamline the input of data by automatically syncing information from third-party labor tracking applications into Cost Management.



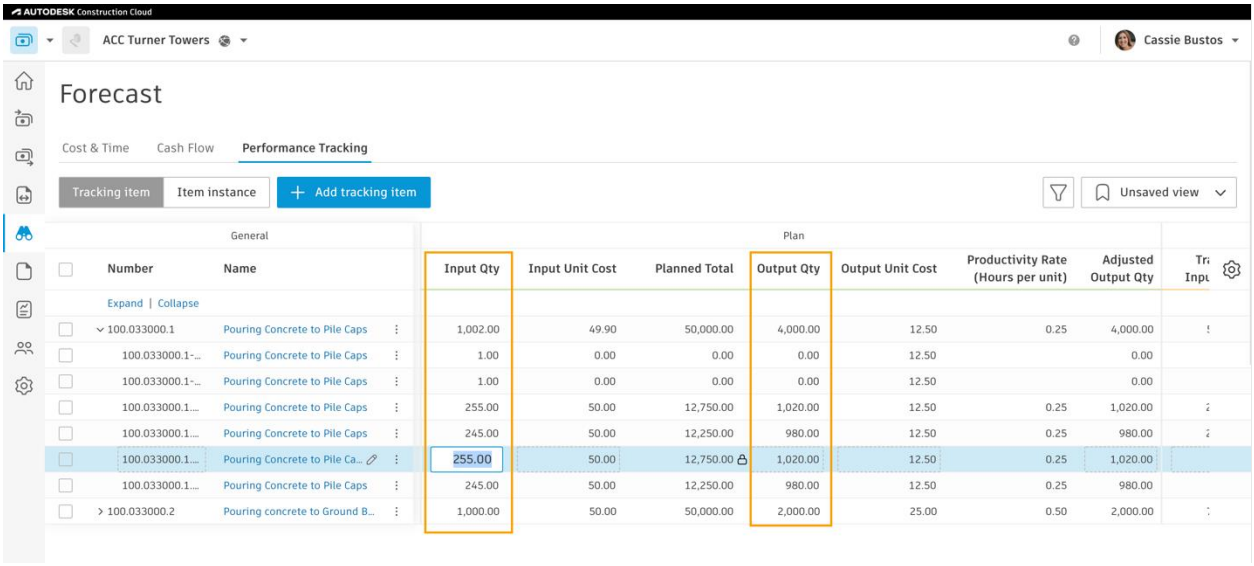
A default tracking instance is automatically created. Add additional instances if needed. And if appropriate, utilize Locations to help define them to gain a clearer understanding of productivity impacts. Note, Locations are defined at the project level.



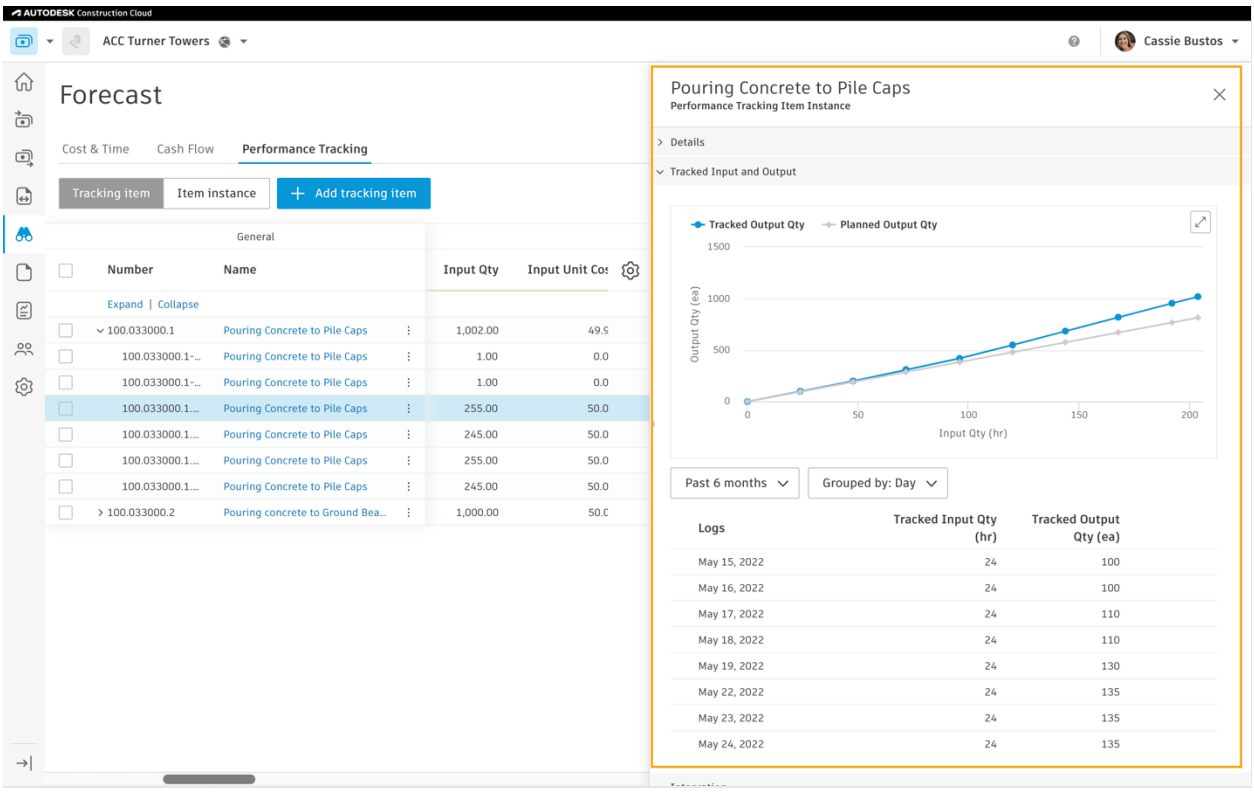
Select Item Instance to view instances separately. For better visualization, slice and dice the data. For example, summarize by location.



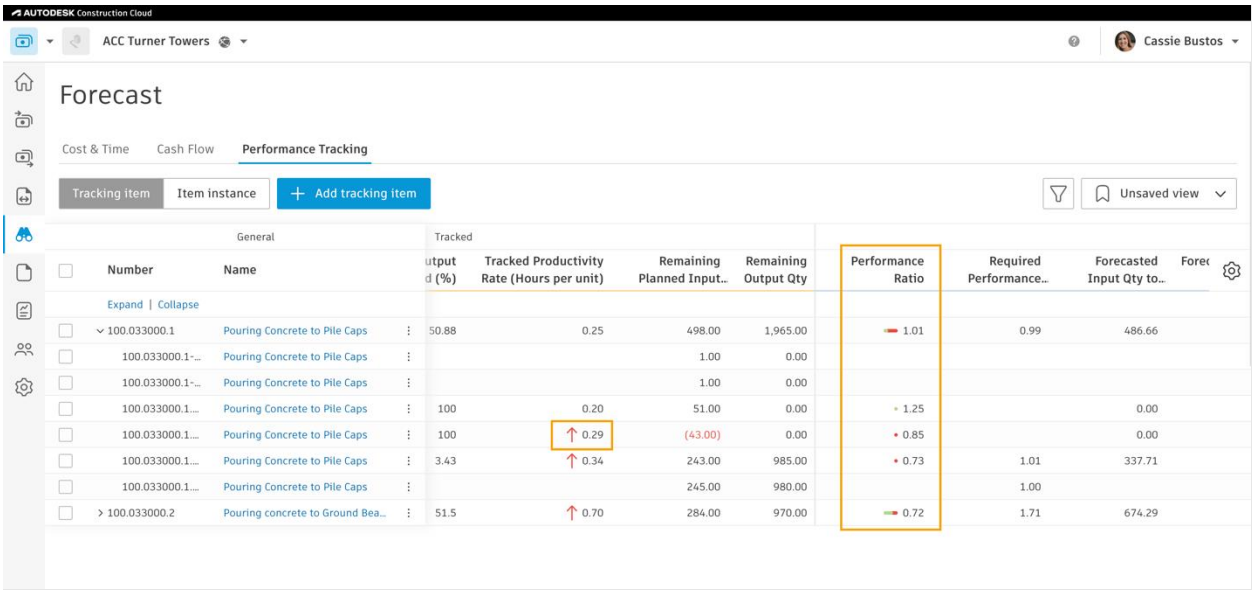
To calculate planned productivity, switch to the Tracking item view and scroll to the Plan section. Once there, review and refine the input quantity (hours) and output quantity (work units). Tracked input and outputs will auto calculate actual productivity.



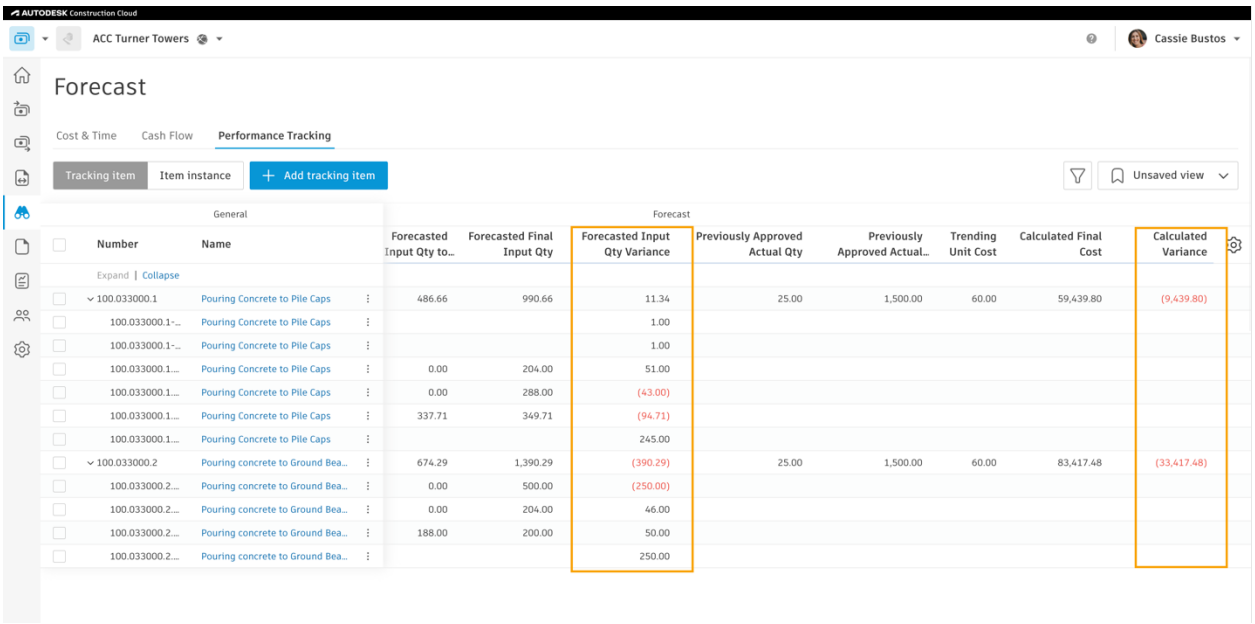
For additional insights, open the flyout to view detailed logs and charts.



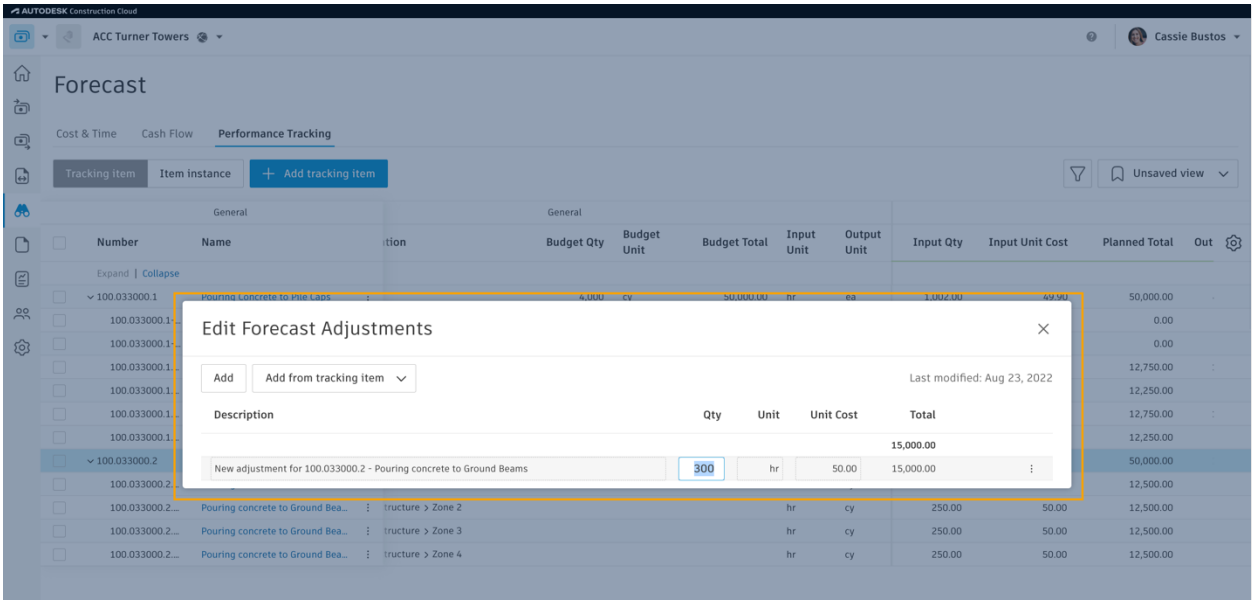
Visual indicators show you how actual productivity compares with the plan. The performance ratio, shows you how well you're performing. Less than 1 displays as red and indicates you are under performing. 1 is as planned and above is over this will display as green.



The forecast section will calculate the required performance to help keep you on track. It also shows any variance from the plan. The system will forecast an indicative end cost by using actual trending costs to date and calculated variance.

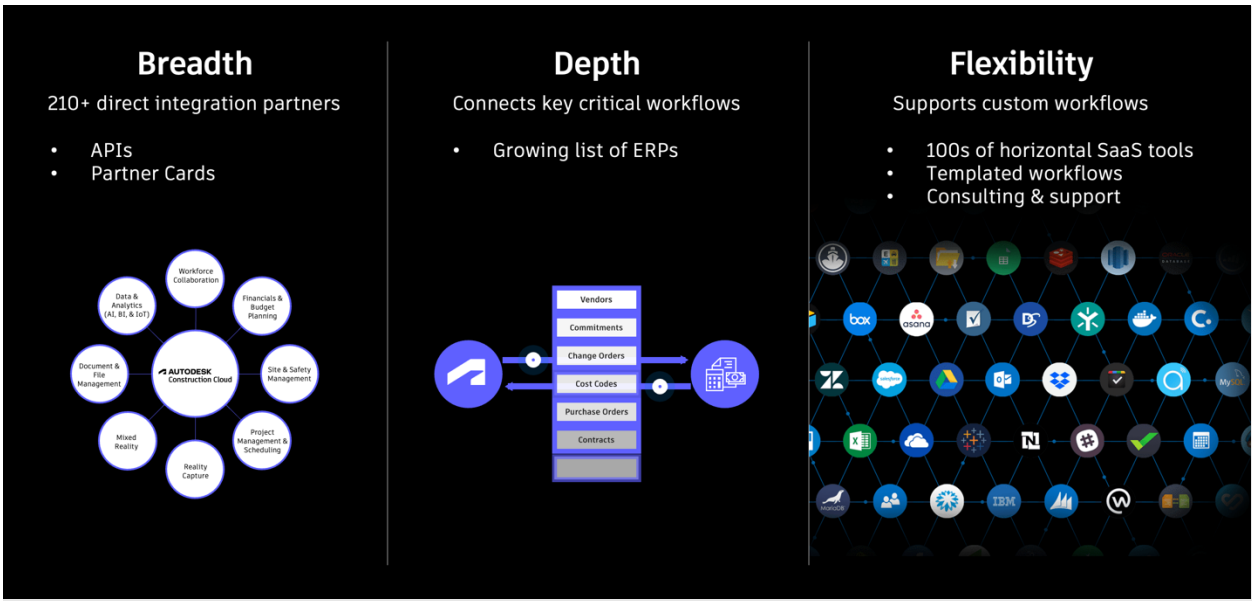


By providing you with the richest source of data, you can adjust your budget forecast if required. Forecast adjustments can be quickly created and adjusted. They are instantly reflected in the budget overview.



Objective 3: Learn about Cost Management + ERP Integrations

Leading Integration Ecosystem

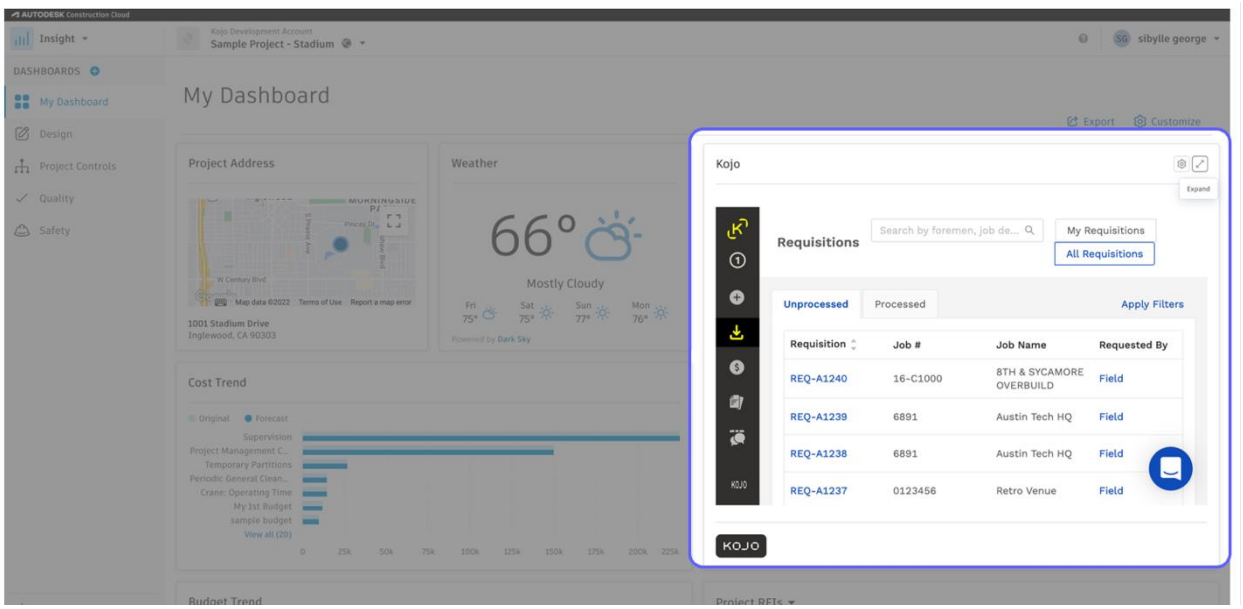


Breadth: Over 210 Direct Integration Partners

Branded Partner Cards: Embedded browser-based applications available in Insight within Autodesk Build. Branded partner cards are listed individually in the card library and are configured using the iFrame compatible embed link provided by the partner company when you subscribe or purchase the application.

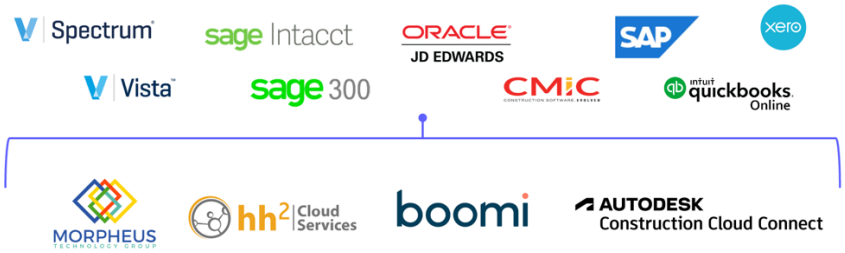
The blank partner card template enables you to display data from third-party applications which don't have a branded partner card. To learn more see Branded Partner Cards.

Example: KOJO Branded Partner Card



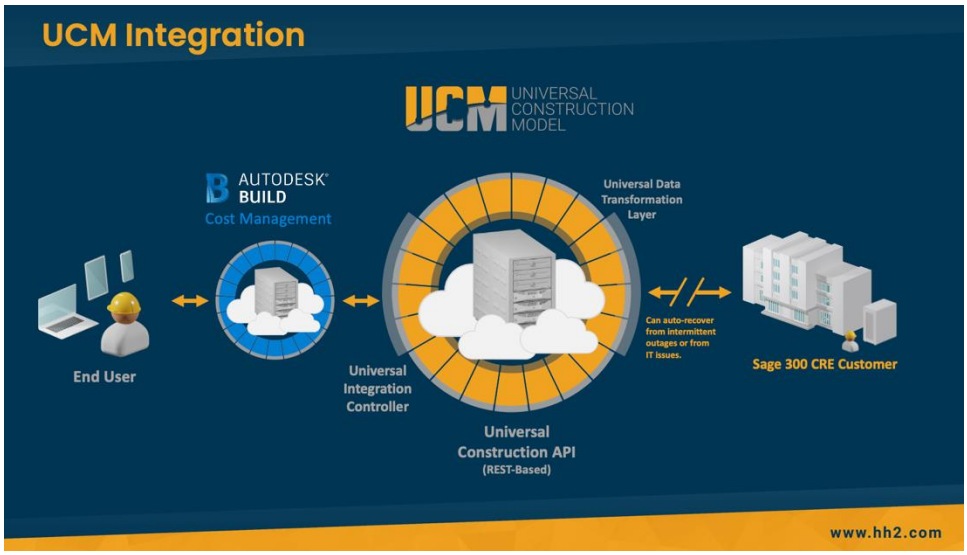
Depth: ERP Integrations

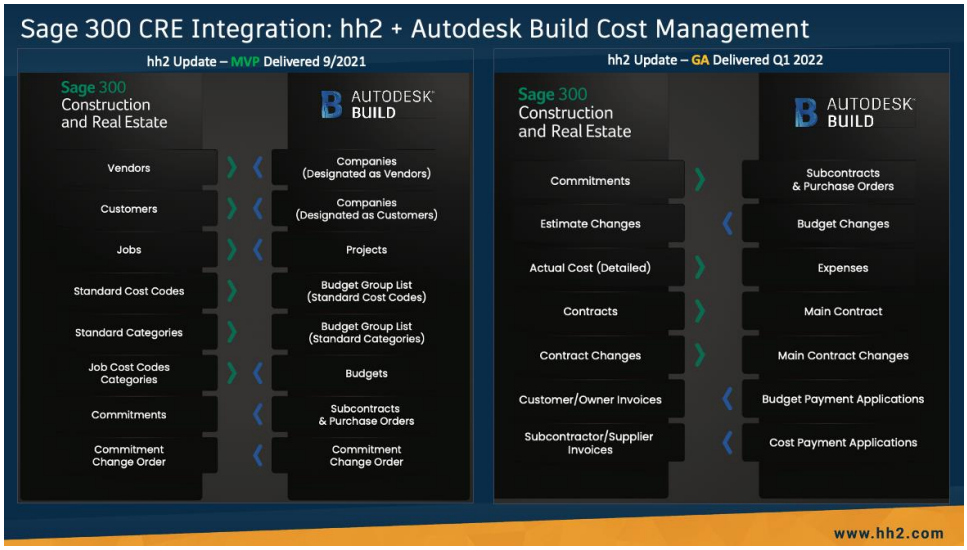
Synchronize critical financial data between accounting and operations by integrating Autodesk Build and your accounting system like Sage, Viewpoint, and JD Edwards. With the elimination of manual and duplicate data entry, the risk of liability issues reduces, and processes become streamlined. Accessibility to accurate, up-to-date information empowers both parties to make informed decisions quickly. And with actual construction cost data automatically flowing into Cost Management, field teams can improve forecast accuracy to ensure maximum profitability.



HH2 – Sage 300 CRE Integration: UCM (Univeral Construction Model)

Autodesk integrates seamlessly with Sage 300 CRE using the Universal Construction Model (UCM) from hh2 Cloud Services. The UCM synchronizes a curated list of data types from Sage 300 CRE in the cloud. These data types include vendors, customers, jobs, cost codes, commitments, contracts, and a host of other data needed by Autodesk Build for project management.





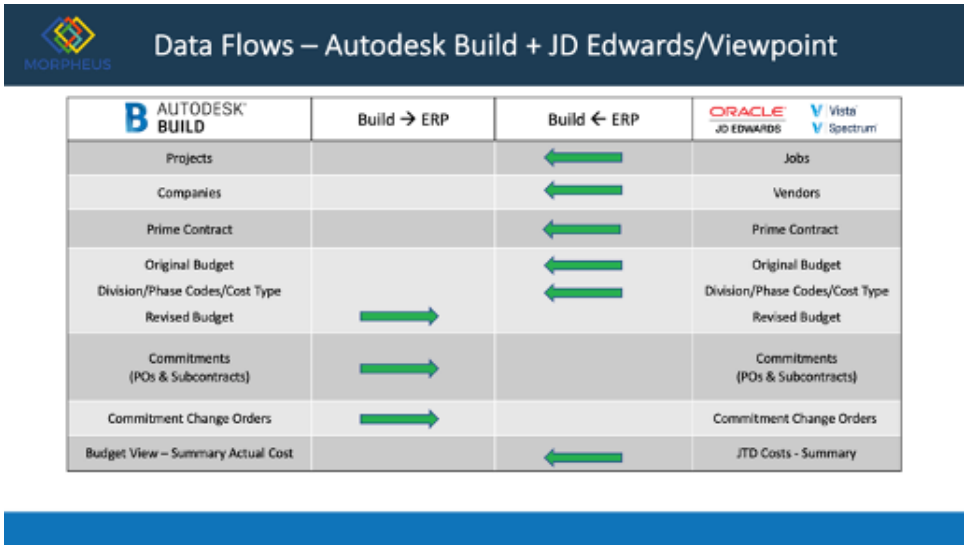
Seamless integration means Autodesk customers can access data from their accounting systems. All updates from Autodesk Build's offering of unsurpassed project management tools flow right into accounting.

A Robust Bridge Between Autodesk Build and Sage 300 CRE

- Cloud-based access to Autodesk Build's tools
- Access accounting system data from the cloud
- Seamless integration between Autodesk Build and Sage 300 CRE
- Automatic transfer of Autodesk Build project info into accounting

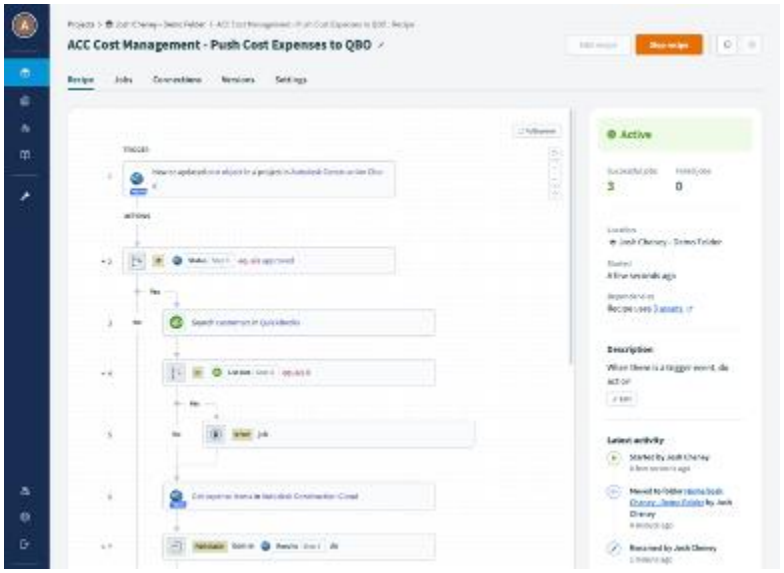
Learn more about HH2's Integration

Morpheus Tech Group – JD Edwards, Viewpoint Vista, and Viewpoint Spectrum



Flexibility: Autodesk Construction Cloud Connect

Autodesk Construction Cloud Connect (ACC Connect) is an integration platform as a service (iPaaS) that allows customers to build custom integrations without writing software code. ACC Connect leverages the Workato platform to allow integrations to 300+ cloud applications, including QuickBooks Online among others.



Within ACC Connect, recipes are the building blocks of any automation. They are automated workflows built by users that can span multiple applications. A recipe is made up of one Trigger, one or more Actions, and Connections

Learn More:
[Autodesk Construction Cloud Connect]

ACC Connect Terminology

Recipe

Workflows in ACC Connect

Each consists of a trigger followed by actions

Connector

A set of triggers and actions pre-configured for a given application

Connection

A user authorization connecting ACC Connect with each integrated application

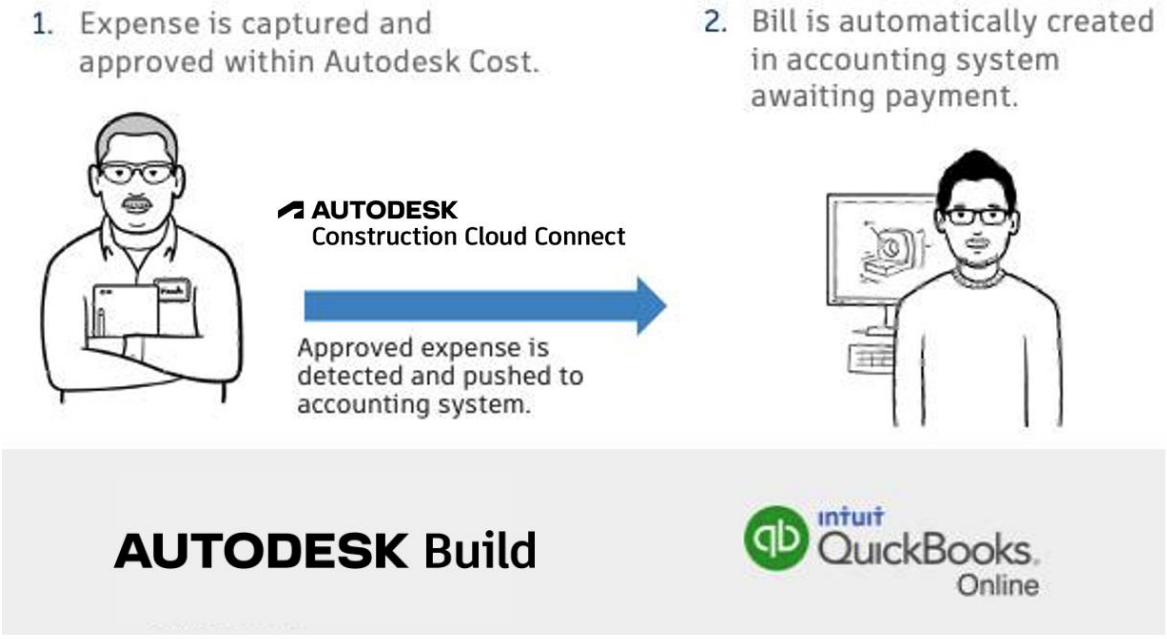
Collaborator

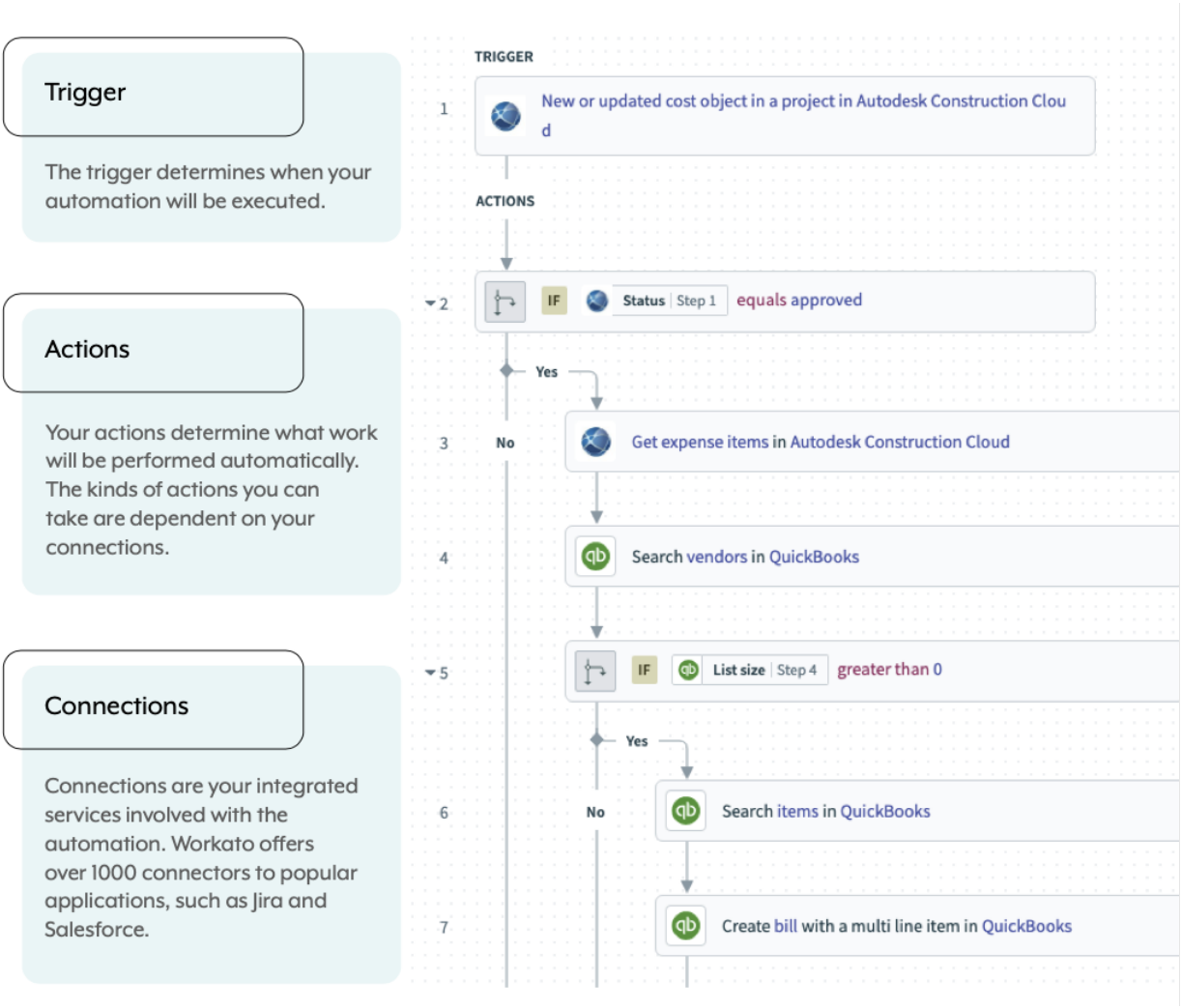
A member of your organization on ACC Connect

Collaborators can login and build recipes

ACC Connect + QuickBooks Online

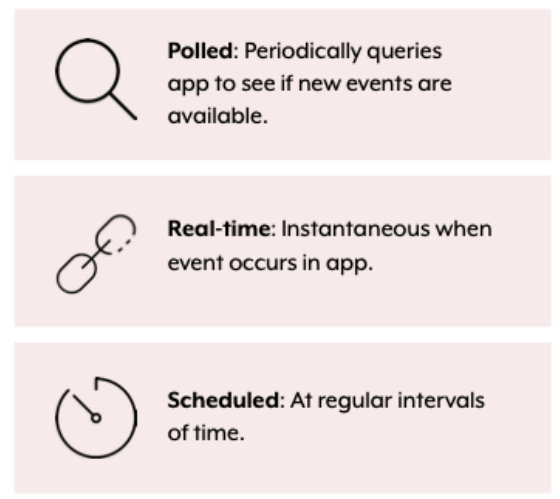
You can find a complete example of how to push expenses from Autodesk Cost to Quickbooks Online in the following recipe: https://app.workato.com/recipes/1612394?st=e10717

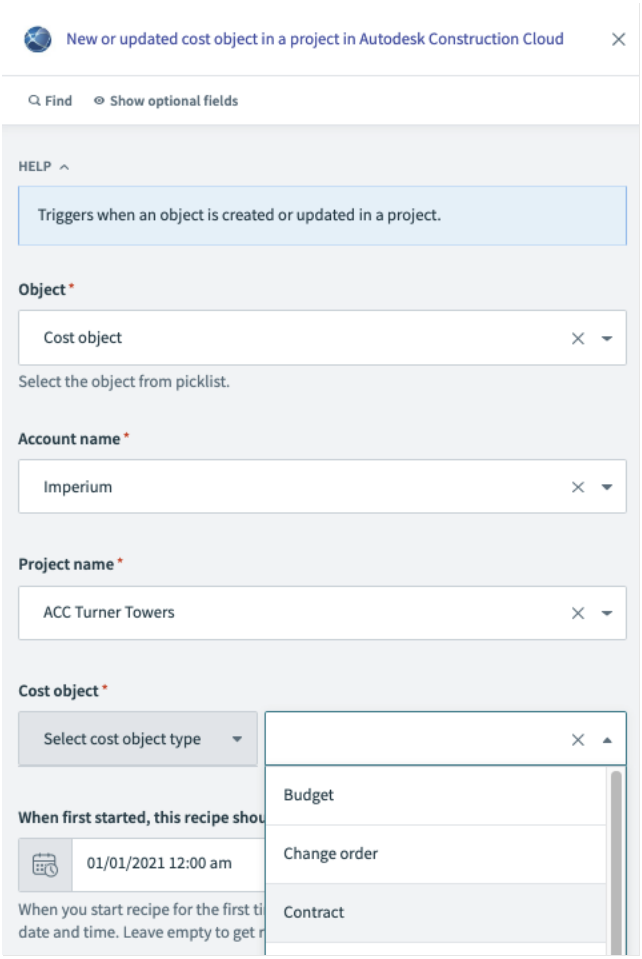




Trigger capabilities depend on the connections and can be used to periodically query an application to see if new events are available.

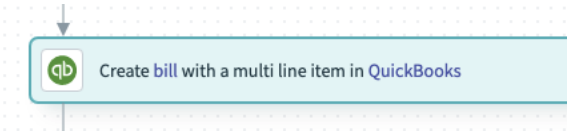
Example trigger categories can include:

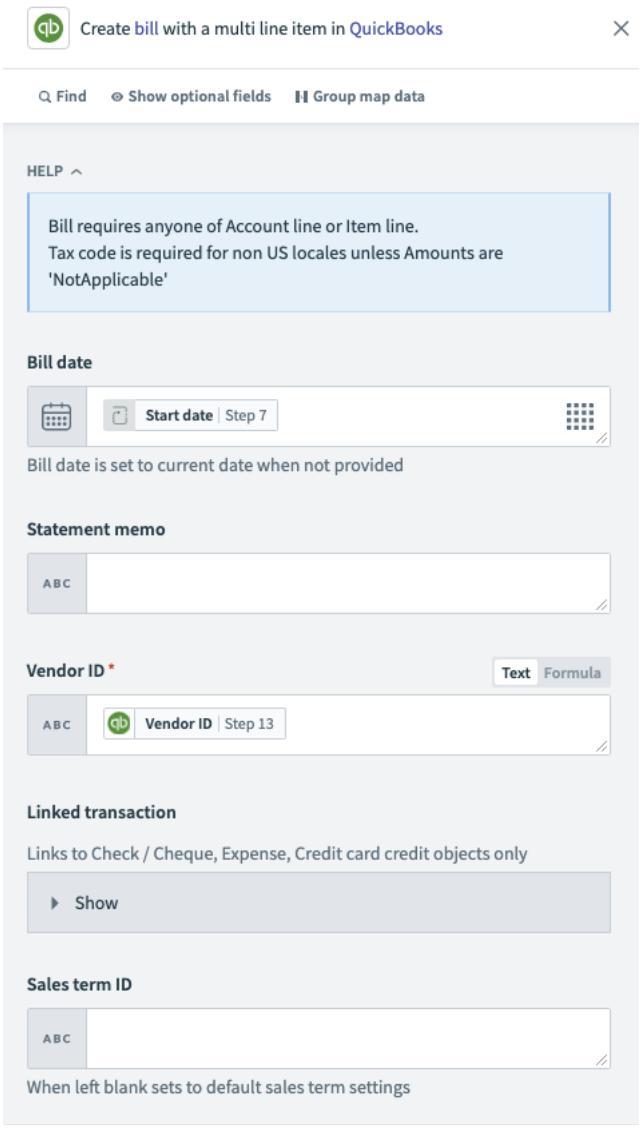




After the initial trigger, recipe steps contain **Actions** that help you describe automation logic.

For example, you can use an action to create a bill in Quickbooks Online as shown:





Objective 4: Hear straight from our customers about the success they've experienced with Cost Management in Autodesk Build

"The **cost management capabilities in Autodesk Build** are perfect. Being able to manage our budgets and track our change orders from one environment allows us to **easily track the flow of money to yield maximum profitability**."

- Jonathan Mabe, Assistant Project Manager, Eckardt Group

The cost feature in Autodesk Build **creates transparency by gathering cost management activity in a central location** to easily track the status and see how a change order is progressing and impacting budget...it ensures accountability across project teams"

- Emily Rech**,** Program Manager, Pond + Company

"The **integration between Sage 300 CRE and Autodesk Build** has **proved invaluable** to our teams. Not only does it reduce the risk of human error by eliminating the number of people that need to update project data across systems, but it **streamlines processes**. Now our accounting team can focus on the higher-level accounting activity, such as ensuring checks and balances between project management, budget, and cost codes, while our field team can make more informed decisions with access to real-time financial data."

- Brad Buckles, Director of Technology, CPPI

Our integration would not have been completed as efficiently or successfully without our **partners, Morpheus and Autodesk**. We all had vested interests in connecting these tools and by leveraging each of our strengths, we achieved what some may consider Impossible— connecting accounting with operations. Through our collective expertise, we have a tremendous amount of **confidence in our integration**. It's proven to be reliable, another critical aspect of a successful integration."

– Dane Pemberton, US Group Construction, Technology Manager, BL Harbert

Helpful Resources

Autodesk Build Cost Management Learning Resources

- Cost Management Overview Video
- Learn ACC – Cost Management Video Course
- Autodesk Build Cost Management Workflow Guide
- Autodesk Build Cost Management On-Demand Core Training
- Digital Builder Cost Management Related Blogs
- Paid Services

Autodesk Build Cost Management Product Updates

- Stay informed of new releases by subscribing to our Digital Builder blog or checking the What's New section within Build Help.

Integration Resources

- Cost Management Integration Overview Video
- Autodesk Construction Cloud Connect
- Blog: Where Accounting Meets the Field: Sage 300 CRE and Autodesk Build
- Connect Estimating with Cost Management Using the New ProEst Integration with Autodesk Build

Arcadis Resources

- Arcadis Website
- Arcadis Solutions, Sectors, & Capabilities
- Arcadis 2021 – 2023 Growth strategy for a changing world