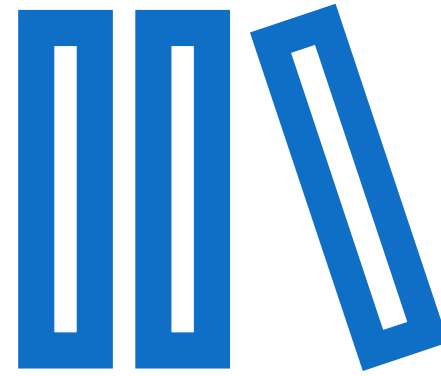




BIM for supply chain planning and
execution

build.works

Agenda

Intro

Features

Business Benefits

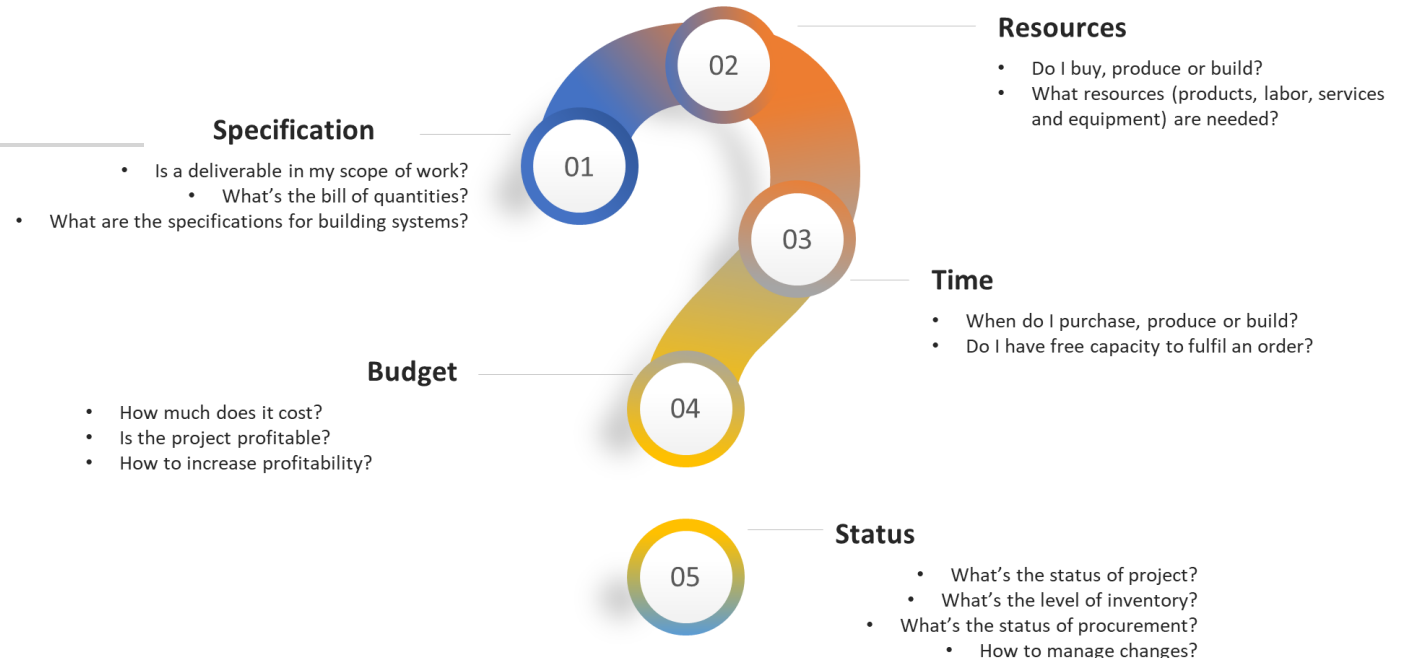
About Us



Intro

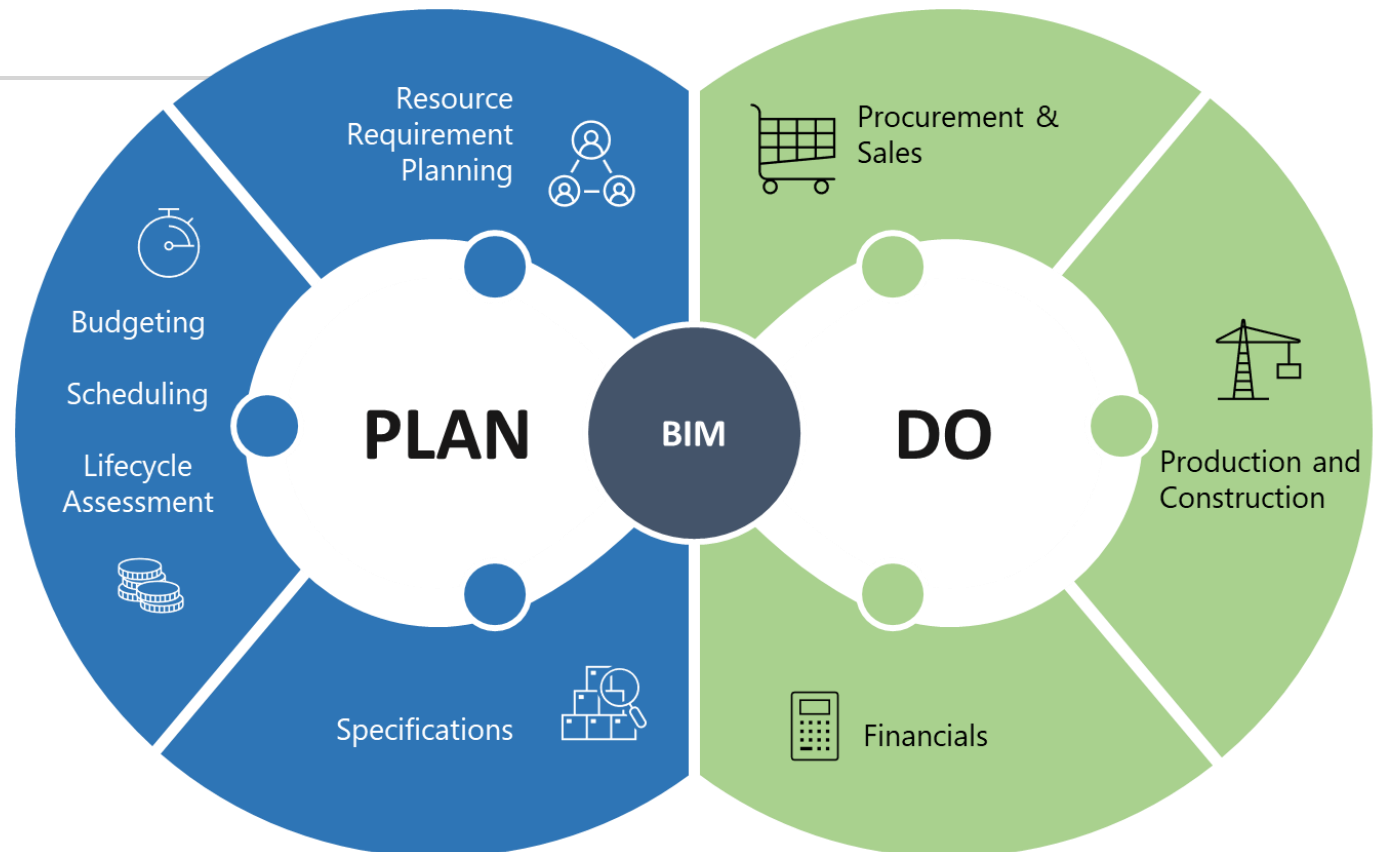
Challenge and Solution

How to bridge the gap between design and supply chain execution?



Cloud suite of integrated apps for BIM-based supply chain planning and execution

- **Design & Engineering**
 - Takeoff
 - Assign Products
 - Assign Activities
 - BoM
- **Project Planning**
 - Budgeting
 - Capacity Planning
 - Scheduling
 - Production Planning
 - Project Demand (MRP)
- **Project Execution**
 - Shop-floor execution
 - On-site construction
 - Purchasing
 - Inventory management
- **Master data management**
- **Setup and customization**
- **Integrations to ERP solutions**





Features

Selected features of more than 70 apps.

Prepare quantity take-off

The screenshot displays a BIM software interface for a project named "P0000001 Modular House". The top bar shows "build works" and "Take-Off". Below the bar, the "Elements" section indicates "Model and saved elements displayed". The central area features a 3D isometric view of a modular house structure with various rooms and walls. To the right of the 3D view is a small thumbnail of the entire model. Below the 3D view is a toolbar with icons for navigation and editing. At the bottom, a table titled "Take-Off elements (23/01)" lists the elements and their quantities.

Name	Element type	Count	Area	Length	Volume	Level	Module
Architectural	Classification	49/0/00					
Doors	Classification	0/0/00					
Roofs	Classification	20/0/0	79.05 m²		49.78 m³	Level 2	
Walls	Classification	30/0/0	271.81 m²	104 179.79 mm	88.87 m³		
Windows	Classification	11/0/00					
Other	Classification	0/0/00	145.05 m²		41.97 m³		
Structural	Classification	0/0/00		17 444.00 mm	0.40 m³		
Structural Framing	Classification	0/0/00		17 444.00 mm	0.40 m³		
LVL 5 beam Optical sanding - LVL 5 79x300	BIM Instance	New		2 812.00 mm	0.06 m³	Level 1	M1.1
LVL 5 beam Optical sanding - LVL 5 79x300	BIM Instance	New		2 812.00 mm	0.06 m³	Level 1	M1.2

- BIM-based quantity take-off and metadata (parameter values of BIM elements) is used in project specifications and supply chain planning/execution. Connecting business processes with BIM enables smooth transition from design and engineering to project execution.

Assign products and complete specification

The screenshot displays a BIM software interface with a 3D model of a modular house in the center. The interface includes a top navigation bar with 'build works' and 'Assign Products' tabs. Below the navigation bar, the project name 'P0000001 Modular House' is visible. The main area shows the 3D model with a toolbar at the bottom. On the right side, a detailed product specification panel for 'Basic Wall - External wall A' is open. This panel includes a search bar, a list of 'Walls' with product details, and a table of 'Take-Off elements'.

Basic Wall - External wall A
Filtered by none

Assigned 1 Suggested 3 Classification 5 All 25

Search

Walls

Internal Wall panel A 100
Code: PP0000009
Price: NA
Procurement: Stock based
Product type: Product ed

External Wall panel B 450
Code: PP0000003
Price: NA
Procurement: Stock based
Product type: Product ed
Assignment count: 1 2

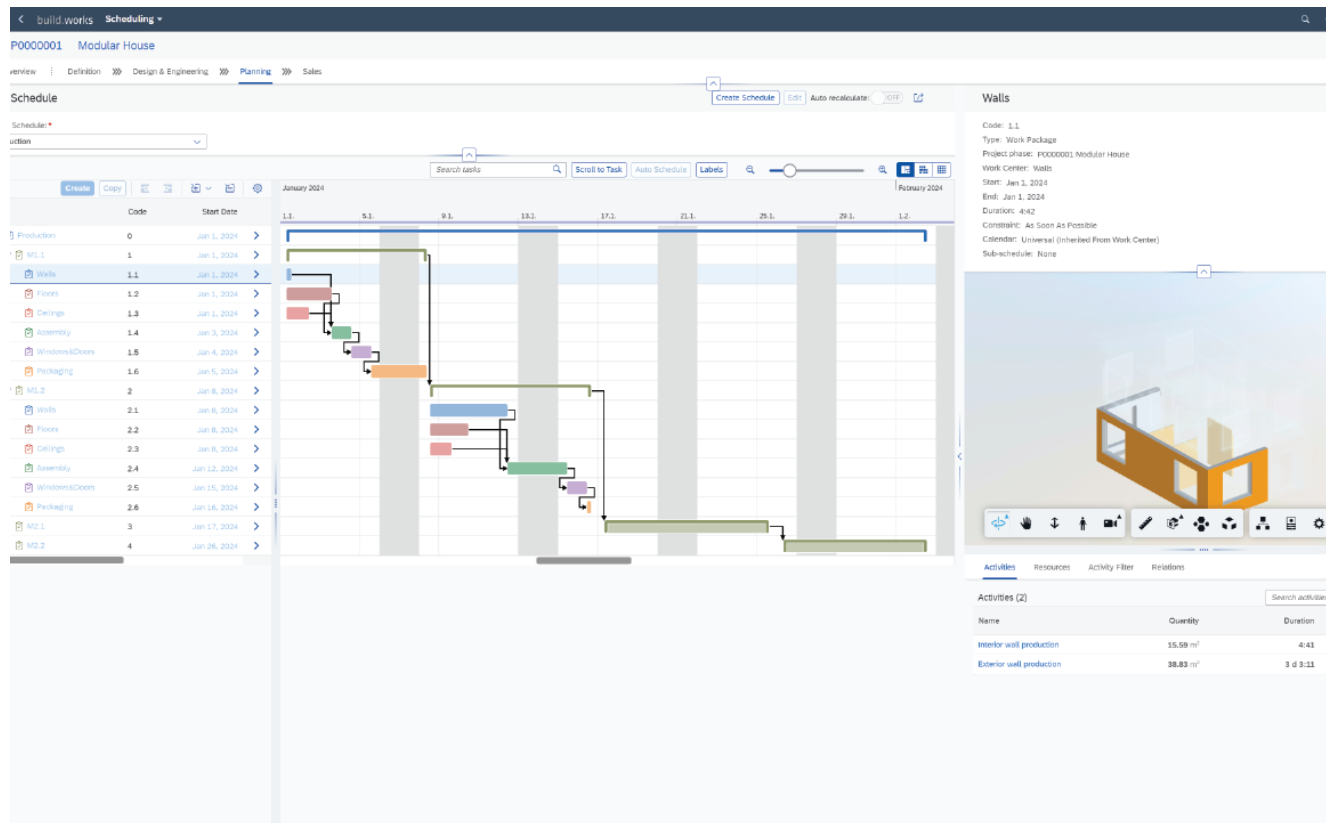
External Wall panel A 350
Code: PP0000002
Price: NA
Procurement: Stock based
Product type: Product ed

Take-Off elements (12/65)

Name	Type	Status	Take-Off version	Scope
Architectural	Revit Category	49/0	Elements	Own Work
Doors	Revit Category	6/0	Elements	Own Work
Roofs	Revit Category	2/0	Elements	Own Work
Walls	Revit Category	30/0	Elements	Own Work
Basic Wall - External wall A	Name	12/0	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work
Basic Wall - External wall A	BIM Instance	Assigned	Elements	Own Work

- Assign products to BIM elements and specify additional requirements by products and building systems. All specifications are automatically available for procurement team to meet all project requirements. This avoids costly mistakes due to shared project specifications between all stakeholders.

Plan capacity and schedule project



- Plan time period when project can be undertaken by analyzing available capacity. Highly automated scheduling of offsite prefabrication tasks and onsite construction tasks using BIM models improves workforce planning and provides requirement dates for purchasing and manufacturing.

Budget costs, sales price and profitability

build.worlds Budgeting

P0000001 Modular House

Budget Data

Create Budget Version Edit Delete Lock

Budget Rows

Budgeting Item	Cost	Sales	Margin	Margin %	Status
Total	32 860.11 EUR	50 305.53 EUR	17 445.02 EUR	34.68 %	
Materials	7 512.11 EUR	9 395.54 EUR	1 878.93 EUR	20.00 %	
Openings	3 433.00 EUR	4 977.89 EUR	1 544.39 EUR	25.00 %	
Labor	21 915.00 EUR	35 937.10 EUR	9 392.14 EUR	30.00 %	
Not assigned	0.00 EUR	0.00 EUR	0.00 EUR	0.00 %	
Extra Margin	0.00 EUR	5 035.51 EUR	5 035.51 EUR	10.00 %	

3D Model of a Modular House

Elements

Name	Type	Cost	Sales	Margin	Margin %
Level 1	BIM Parameter	14 813.87 EUR	20 081.92 EUR	5 468.05 EUR	27.23 %
MLL	BIM Parameter	7 467.99 EUR	10 509.61 EUR	2 841.62 EUR	27.04 %
DEL	BIM Parameter	748.34 EUR	1 032.48 EUR	284.32 EUR	27.54 %
EW1	BIM Parameter	836.53 EUR	1 152.18 EUR	315.62 EUR	27.39 %
WALL	BIM Parameter	531.53 EUR	748.73 EUR	209.20 EUR	28.24 %
Basic Wall - External wall	BIM Element Instance	531.53 EUR	748.73 EUR	209.20 EUR	28.24 %
Windows	BIM Parameter	305.00 EUR	411.43 EUR	106.43 EUR	25.87 %
FRANPRO MISEL A.A - 19	BIM Element Instance	305.00 EUR	411.43 EUR	106.43 EUR	25.87 %
EW2	BIM Parameter	2 082.40 EUR	2 876.75 EUR	792.35 EUR	27.56 %
EW3	BIM Parameter	836.53 EUR	1 152.18 EUR	315.62 EUR	27.39 %
FE1	BIM Parameter	2 221.17 EUR	2 967.54 EUR	745.97 EUR	25.14 %
IW1	BIM Parameter	136.73 EUR	190.41 EUR	53.68 EUR	28.19 %
IW2	BIM Parameter	136.73 EUR	190.41 EUR	53.68 EUR	28.19 %
IW3	BIM Parameter	185.61 EUR	239.83 EUR	65.62 EUR	28.19 %
Not assigned	BIM Parameter	504.15 EUR	713.67 EUR	215.32 EUR	29.91 %

- Automated budgeting based on project specification. Top-down view of budgeted costs, revenues and margin by resource categories, building systems, assemblies (e.g. modules and panels) or any BIM parameter improves financial planning and control.

Execute offsite production and onsite construction



- Assign project tasks to people on the shop-floor or construction site. Track progress and accept/reject work reported by workers using mobile app. Work done is used to invoice customer based on completing project milestones and accepted work quantities and or time.

The screenshot displays a software interface for project management, likely for construction or manufacturing. The main window is titled "Work Center" and shows a 3D model of a building structure. Below the model is a table of tasks with columns for Activity, Planning area, Planned start, Planned end, Quantity, % complete, RA count/complete, and Worked planned/... The table lists various tasks such as "Exterior wall products", "Interior wall products", "Floor production", "Ceiling production", "Internal beams", "Module assembly", "Internal window", and "Packaging".

Activity	Planning area	Planned start	Planned end	Quantity	% complete	RA count/complete	Worked planned/...
Exterior wall products	M1.1	Jan 1, 2024	Jan 1, 2024	25.93 m²	100.00 %	3/1	3/1
Interior wall products	M1.1	Jan 1, 2024	Jan 1, 2024	15.58 m²	100.00 %	3/2	3/2
Floor production	M1.1	Jan 1, 2024	Jan 3, 2024	25.59 m²	0.00 %	2/0	2/0
Ceiling production	M1.1	Jan 1, 2024	Jan 2, 2024	27.24 m²	0.00 %	2/0	2/0
Internal beams	M1.1	Jan 3, 2024	Jan 4, 2024	2.00 PC	0.00 %	2/0	2/0
Module assembly	M1.1	Jan 3, 2024	Jan 4, 2024	1.00 PC	0.00 %	2/0	2/0
Internal window	M1.1	Jan 4, 2024	Jan 5, 2024	4.00 PC	0.00 %	2/0	2/0
Packaging	M1.1	Jan 5, 2024	Jan 8, 2024	1.00 PC	0.00 %	1/0	1/0



Business Benefits

Value



Benefits

Increase sales with rapid project estimation and quotation

Estimate resource requirements and calculate project costs, sales price and profit margin. Use predefined master data to specify your projects by building systems. Both cost plus margin and sales price lists can be used to budget and prepare customer quotations.

Improve financial planning and control with easy change management

Plan project change orders and communicate changes to procurement and production processes. Validate change orders in respect to resources, Bill of Material (BOM), budget and project schedule prior to communicating to supply chain. Change orders can be initiated from changes in BIM models and/or changes in project specification.

Avoid costly mistakes with single source of truth

Project definition provides single source of truth for supply chain planning and execution. Avoid information siloes between departments and applications by triggering all business processes from central definition of project specifications based on BIM.

Increase efficiency with integrated business processes

Streamline and automate project planning and execution with integrated end-to-end business process. Enhance collaboration between departments by connecting data, processes and people into one coherent way of working enabled by suite of integrated cloud applications.

Increase profitability with value chain innovation

Provide higher value to customers by offering more complex products, services and turnkey solutions. Move up in the value chain by increasing the level of prefabrication and offering value-added features. Flexible BOM definition of prefab assemblies and sub-assemblies based on BIM models and product specifications enables value chain innovation and increases your margins.



About Us

Who we are?

About Us

build.works is a product of INTELSYS - an SAP PartnerEdge Sell/Build partner selling, implementing and supporting SAP products

build.works is SAP certified product:

- Integration with SAP S/4HANA
- Application Readiness Check
- SAP Store
- SAP Industry Cloud

build.works is Autodesk certified product:

- Integration with Autodesk BIM360
- Member of Autodesk Construction Cloud
- Autodesk Store



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