DEFINITIVE GUIDE TO

RUNNING A PROFITABLE SCAFFOLDING BUSINESS

CONTENTS

INTRODUCTION

As stated in McKinsey's Reinventing Construction report, the construction sector is among the largest contributors to the world's economy. However, most construction firms are experiencing low profitability and margins. The reason? Despite its high economic impact, the industry is still lagging digital transformation, coupled with labor shortages and plummets in productivity, and contractors find themselves struggling to deliver projects on time and on budget.

The accelerating adoption of construction technology, such as robots and drones, is expected to help solve the productivity imperative. In fact, digital transformation done right will enable the construction industry to achieve $1.6 trillion in added value.

But this new digital paradigm isn't a shared reality for all industry players.

Scaffolding businesses have yet to catch the digitalization wave. There seems to be a lack of transformative scaffolding solutions, the way AutoCAD reinvented architecture and engineering. In an industry where customers often choose the lowest bidder, regardless of proposal quality, digital transformation can seem like a risky investment to scaffold contractors.

Low-tech, hand-drawn sketches are still a common practice for bidding. But they come at a cost, to safety and profitability. Meanwhile, material handling is yet another nightmare with manual tracking, spreadsheet-based inventory management. You can easily see how these complex workflows and inefficiencies cost you revenue and profit.

If you find your scaffolding business in a constant battle to protect profit margins, you are not alone.

While falling back on tried and tested methods is comforting, it is only a temporary crutch. Sooner or later –sans digital tools– companies may find it challenging to find success in the highly competitive scaffolding industry. Digitalization is no longer an option. It's an imperative.

An industry report by PlanGrid and FMI Corporation found that leveraging industry-specific technology or software is the way to go for improved productivity. The good news is that tech-enabled scaffolding lifecycle management – from back-office functions to on-site execution – is now a reality.

That's why we prepared the **Definitive Guide to Running a Profitable Scaffolding Business** to help you elevate your scaffolding business practices through smart technology investments.

Industry-specific scaffolding software is easily adoptable into various facets of scaffolding business, from initial bidding to continuous inventory management. Ultimately, it can set up your business operations for a long-term sustainable return.

In this ebook, you'll discover end-to-end scaffolding business solutions – from setting performance metrics to strategic software integration – to bring your business to greater heights.

CHAPTER

01

BACK TO BASICS:

5 Critical Performance Metrics in Scaffolding Business

"Domino's 30-Minute Delivery or Free Pizza" is not just a marketing gimmick. It's also a quality metric that measures the efficiency of the company at delivering goals (and, of course, pizza).

With performance metrics, you're able to evaluate how successful your business operations are at accomplishing key company objectives. Most importantly, you can swiftly make amendments should the metrics show a downward trend.

But there are a lot of performance metrics and using them all is not practical or helpful. The key is to choose metrics that can accurately and concisely reflect your company's main objectives.

And there are five critical metrics that the most productive and profitable scaffolding businesses use to track their success.

USING COMPANY OBJECTIVES TO ESTABLISH MEANINGFUL METRICS

For mariners, a lighthouse serves as a navigational tool and warns them of potentially dangerous areas. In the business context, performance metrics function as the lighthouse for organizations.

These metrics guide your company to accomplish goals successfully by evaluating the effectiveness of business operations. They keep your company afloat by quickly revealing activities that fail to achieve business goals.

Since these metrics can make or break your business, it's important that you establish meaningful metrics based on your scaffolding company's key strategic objectives. This way, when you achieve your Key Performance Indicator (KPI), you'll successfully accomplish important business objectives too.

For most scaffolding businesses, key objectives and the corresponding metrics may revolve around the following important departments.

Finance Department

- **Key Objective 1:**

  Achieve and maintain high profitability

- **Key Objective 2:**

  Maintain healthy cash flow

- **Key Objective 3:**

  Minimize inventory losses

Customer Service Department

- **Key Objective 1:**

  Provide excellent customer service

- **Key Objective 2:**

  Attract and retain profitable customers

Operations Department

- **Key Objective:**

  Achieve and maintain high yard productivity

Note that the objectives are all long-term and help paint the big picture about what's important to your scaffolding company.

The next step is to match these objectives with appropriate metrics so that you can monitor the progress of said objectives regularly.

More on that below.

CRITICAL METRICS THAT YOU MUST KNOW TO ACHIEVE YOUR COMPANY'S BUSINESS OBJECTIVES

We've narrowed down five critical metrics that can successfully steer your scaffolding company and operations in-line with important long-term key objectives.

Inventory Accuracy

This metric is crucial, especially for a business that relies on accurate inventory counts to maximize profitability. Inventory Accuracy can be interpreted differently by various departments in your scaffolding business. For example, the Finance department may calculate it in terms of dollar value.

Their goal would be to ensure that the dollar value of scaffolding materials in the ERP system and those out in the yard match. On the other hand, the Sales department's take on inventory accuracy is even more straightforward in terms of actual scaffolding material counts.

No matter the approach, inventory accuracy helps you to gauge if you have adequate scaffolding pieces to furnish your customer's project. Besides that, it also gives a clue if your bookkeeping and data management practices are working well for your company. A high discrepancy between physical scaffolding pieces and inventory items in the system could be due to theft or human error at manual data entry. And if left uncorrected, these problems could affect your company's profitability.

This is why regular inventory audits throughout the scaffolding process – in yard/depot, before shipping to customers, at the customer's jobsite, and after a job – is crucial. While the practice of conducting cycle counts is advantageous, take it up a notch by leveraging innovative technology like ERP accounting software and barcodes. With modern ERP solutions, you can easily barcode serialized and non-serialized items for efficient inventory management.

How to Calculate	The difference between physical goods and inventory items reported by ERP software or department.
Target	Aim for the difference to be as low as possible.

Rental Rate

Another equally important metric for a scaffolding business is the Rental Rate, as it's directly responsible for your company's cash flow and profitability. There are many factors that can influence rental rate; one of them is the type of scaffolding material that you provide to your customers. Usually, systems scaffold fetches a higher rental rate because it's easier and faster to erect; thus, efficiently reducing the customer's labor costs and project timeline. Additional expenditures like labor and transport costs can also inflate or deflate your rental rate.

An accurate rental rate also cements your company's reputation as a competitive and reliable scaffolding business.

We know how cutthroat the scaffolding industry can be, where frequently the lowest scaffolding bids win! So, be sure to merge the original cost of your scaffolding materials into the total average fleet cost to ensure higher ROI from your rental rate, regardless of your business operations.

With an automated scaffold management system, you can easily manage rental rates and successfully recoup costs incurred due to maintenance, storage, administration, etc.

How to Calculate	The total rental revenue that you receive for each piece of scaffolding item.
Target	Aim for accurate and competitive rental rates.

Time Utilization Rate

While you can always rent out various scaffolding materials, you must understand the value – in terms of productivity and monetary – that each piece brings to your company. You can measure the former via time utilization. In simpler terms, this performance metric tells you how often a scaffolding item is being rented out.

Knowing which scaffold inventory is heavily rotated can also guide you to track items that require servicing for optimal performance. You can even create a routine maintenance period for high-value scaffolding parts.

Too high a time utilization rate is bad, as you may have to turn away potential customers if your materials are always away for use. In contrast, a low time utilization rate could mean that the scaffolding item is not being sought after by your customers. Or perhaps you have too many of the same item. Try to avoid this as the cost of storing and maintaining these items can quickly add up and affect your company's long-term profitability.

Combat too low and high time utilization rates by keeping rental rates of the scaffolding materials low and high, respectively. For example, if your scaffolding item is not heavily rotated, you could always reduce its rental rate within a reasonable limit to capture more demand.

How to Calculate	Items on rent against items owned. The items could be by scaffolding piece or total value of equipment.
Target	Aim for a 70% to 80% time utilization rate for optimal inventory usage.

Financial Utilization Rate

The next vital metric is financial utilization rate. To put it simply, this performance metric indicates the scaffolding item that's bringing your company the big bucks. You can then manage its supply chain for higher ROI. Financial utilization rate is usually measured throughout an item's lifetime; or, the shortest time period is over a year.

For example, if your scaffolding materials cost a total of $1,000,000 and you have rented out $900,000 worth of scaffolding pieces, then your financial utilization rate is 90%. Watch out for too low of a financial utilization rate as it could mean that your rental rate is either too low or too high. The former prevents you from getting adequate ROI from each job. While the latter simply makes it difficult for you to win bids.

Or it could also mean that you're offering scaffolding items that are not commonly used in construction projects, hence the low demand and poor utilization. In the long run, this could drain your business of its profit. Ideally, your scaffolding items should have high rates for both time utilization and financial utilization.

You can reach an ideal target by achieving the right balance between sending out scaffolding items to generate revenue and cover business expenditures while ensuring that they're not out for too long. Not only that, consider increasing the quantity of items with high financial utilization rate to ensure sustainable productivity and profitability.

How to Calculate	Cost of scaffolding items at rent against the total cost of scaffolding materials.
Target	High time and financial utilization rates.

Day Sales Outstanding (DSO)

A business is nothing without its customers and, of course, their payments. Keep track of your customer invoices and how quickly you are collecting payment from your customers via days sales outstanding metric.

A standard DSO schedule is usually categorized on a monthly, quarterly or annual basis. However, it's important that you collect outstanding accounts receivable as quickly as possible so that you can put the cash to use efficiently.

Elevated days sales outstanding could mean that you have slow-paying customers or that your business is slowing down. So, implement appropriate corrective and preventive actions to nip these issues in the bud. For example, if your customers aren't paying on time, charge late payment fees.

Alternatively, offer reasonable discounts for early payments to encourage customers to pay on time. Also use this metric to cultivate a healthy list of customers by weeding out slow-paying ones.

For seamless invoicing and bill tracking, leverage an automated and comprehensive scaffold management system. With it, you can customize billing and invoicing options based on different rent rates and job costs.

How to Calculate	The amount of accounts receivable divided by the total credit sales in a certain period of time. The number is then multiplied by the number of days in that period of time.
Target	Depends on your financial goals.

Let the performance metrics above set your business sailing in the right direction.

Next up is calculating scaffolding materials and cost effectively to ensure that you get the most business profitability.

CHAPTER

02

LET'S GET TECHNICAL:

Guide to Calculating Scaffolding Materials and Cost

Material and cost calculations form a major part of a scaffolding business. They allow a company to track its scaffolding inventory and furnish jobs with adequate materials at the most profitable rate.

However, many companies still rely on legacy methods like manual scaffold design and material calculation.

You know how frustrating it can be when just a small mistake results in expensive rework. Worse, you end up wasting precious time to amend your mistakes and can even lose credibility among your customers.

That's why it's so important to get your calculations right, the first time. This is where modern, industry-specific software can be beneficial.

Want to know more? Just keep reading!

CHALLENGES WITH CURRENT SCAFFOLDING MATERIAL AND COST CALCULATION METHODS

No doubt, relying on established scaffolding material and cost calculation is convenient as everyone in your organization is used to the inner workings of your company.

But familiarity doesn't always translate into improved efficiency.

To address the challenges with current calculation methods, first let's visualize how scaffolding jobs come about and are usually managed.

Disconnect Between Scaffolding Designing and Material Calculation

SCENARIO

Perhaps a client has approached you with a scaffolding proposal request. Or maybe there's a new scaffolding bid that you've got your sights on. No matter the case, the next step would be to design scaffolding as per project requirements.

To design and calculate scaffolding materials, you must gather building information like planned use, total working area, height and length of scaffolding, maximum live and dead load weight. Then, proceed with designing the scaffolding using one of the two methods below:

Method 1

Given the complexity of non-industry-specific software like AutoCAD, you may still resort to low-tech hand-drawn scaffolding design, which is then counted manually for the Bill of Materials (BOM).

However, manually sourcing and inputting this information poses a risk of data inaccuracy. And more complex designs only lead to a higher risk of human error in calculating scaffolding materials manually. On the other hand, many companies also use a more modernized approach to designing and calculating scaffolding materials.

Method 2

Non-industry-specific solutions like AutoCAD are widely used to design scaffolding. But these solutions lack capabilities needed by scaffolding companies. For example, AutoCAD only gets the designing part right; the same can't be said for material calculation. You must then integrate AutoCAD with a counter app to get the BOM.

The distinct disconnect between manual scaffolding design process and material calculation will only result in design rework and delayed building time.

Inaccurate Material Calculation Begets Inaccurate Cost Estimates

After scaffolding design and material calculation comes cost estimation. A competitive estimate is one of the keys to landing that bid and getting the proposal approved by clients.

But let's face it, the scaffolding industry and its competitive bidding nature may cause companies to underestimate the project scope and rush through the entire process. Coupled with a disconnected scaffolding system, just a small design inaccuracy can lead to expensive material and cost miscalculations.

Does the scenario below seem familiar?

SCENARIO

In the heat of getting the scaffolding proposal done, you overlooked the fact that the job site is on a sloping surface. In your design, you used normal base jacks instead of swivel jacks.

The business then needs to go back to the drawing board (literally, if you're using manual design and counting methods) to correct the cost estimation. A worst-case scenario would be to send the wrong materials to a job site. These mistakes mean spending more time on the job site and expending more on labor costs, which translates into higher operating costs.

This was the case with one of our own customers, Skyline Scaffold. Manual equipment counting was not only tedious, it also led to inaccurate designs. As a result, designs had to be amended at the very last minute. In the worst-case scenario, jobs were sometimes postponed too.

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We saw lower returns, higher freight costs and higher design costs. We also had higher labor costs when we had to make a design change, adapt systems halfway through a project or spend extra time in the yard separating rented equipment from our own.

"

—— **Jeff Remfert, General Manager of _Skyline Scaffold_**

Disconnect between Scaffolding Material and Labor Cost Calculation

But equipment and materials alone don't contribute to the total scaffolding cost. Labor costs also play a huge part. It's often calculated using scaffold metrics such as total weight, the number of pieces, or even the scaffolding volume.

SCENARIO

Based on your previous projects, it takes about 10 man-hours to assemble and disassemble each cubic metre of scaffolding. Once you've finalized the design, you then proceed to calculate the estimated labor cost according to that standard. Unfortunately, you've accidentally miscalculated scaffolding materials required.

When there's a scaffold metric miscalculation, you'll also have an inaccurate estimation of labor cost. If left unrectified – in a worst-case scenario – you may even be working at a loss.

In the scaffolding field, seemingly simple mistakes can add up and lead to increased costs and less-than-stellar reputation among your customers.

ADOPTING DIGITAL SOLUTION TO OPEN UP BUSINESS OPPORTUNITIES

If manual scaffolding operations are how things are done in your company, then it's high time that you broke the mold.

Why? Well, the last thing you need is poor efficiency and even poorer profit margins becoming the norm in your organization.

Remember the modern and industry-specific solution that we discussed in the beginning?

That's how you're going to upgrade your scaffolding material and cost calculations in line with the industry's fast-paced and competitive nature.

With this approach, your scaffolding business can benefit from:

01
Fast Data Capture

Fast-paced industry requires fast information capturing. So out with that manual measuring and inputting of building information! A modern and industry-specific solution should be able to instantly import plans. And in various formats too! This way, not only does it save time, instant plan importing greatly improves design accuracy too.

02
Information Customizability

Your projects come with varying requirements. Sticking with a one-size-fits-all manual approach can limit your capability as a scaffolding business. So, your modern and industry-specific solution should also be able to handle project information customizability.

For example, some of the important information that must be present in the materials database for easy identification are part numbers, dimensions, and descriptions. This database must be customizable, as you might need to customize the BOM based on the materials that you're using for a project.

03

Error-Free, Integrated Materials and Cost Calculation

As stated earlier, scaffold designing is followed by material calculation and cost estimation. Wouldn't it be better if these processes were integrated for seamless operations? With digital solution, you can easily confluence different aspects of your business effortlessly. Doing so frees up a lot of time and resources wasted on looking for the right information, resolving conflicts that arise from incorrect information, and reworking inaccuracies.

For example, you can easily create estimates based on your BOM that's calculated automatically from the scaffold models. You can even take it one step further and view available inventory balance whilst creating the estimates.

04

Accurate Scope Visualization and Confirmation

It's only logical that you share your scaffolding plan with your clients to ensure that both of you are on the same page regarding project requirements. A modern digital solution will enable you to create and export living models (2D plans and 3D models) into various formats (e.g. PDF, 3D, and 2D DWG).

Customers will then be able to see every aspect of the design. For example, maybe you included a compact 8-leg stair tower in your plan instead of a stacked one. With a living model, customers can request for design modifications before men and materials hit the job site. Once they're satisfied with your plan and estimate, instantly turn them into a shipment and you're ready for that job.

When you get the scaffolding design right, the corresponding material and cost calculation will be accurate too, especially if you use an integrated digital solution.

Overall, inaccuracies and inefficiencies are minimized while productivity and profitability are maximized.

Ready for the digital paradigm shift? In the coming chapters, we'll introduce the complete scaffolding software suite to help you speed up the digitalization and grow your business.

CHAPTER

03

THE NEW SHIFT:

Introduction to Integrated Scaffolding Software Solutions

In complex cross-trade collaboration, it's crucial to ensure information accuracy and transparency throughout the project.

That's where challenges arise. Many scaffolding businesses are losing money due to inefficient workflows. The disconnected deployment of systems across multiple functions, for instance, design, accounting, and field, can sink your project:

- Siloed data between design work and materials counting can cause inventory discrepancies.

- Inaccurate bill of materials and changing project scope can lead to more rework and even invoice errors.

- Miscommunication between ground workers and scaffold users can compromise scaffold safety.

- Conventional equipment or material approval processes can delay project timelines.

Avontus addresses these problems (and more) with integrated scaffold solutions for every component of your business with the following benefits:

01

Built Specifically for Scaffolding Industry

Using an industry-specific solution means that it's able to handle specific job requirements. Developers of such solutions are aware of the ins-and outs of the scaffolding industry and their software will also address most of your scaffold management needs.

02

Intelligent Scaffold Business Data Automation, Reporting, and Analysis

Data automation is necessary in today's digitized scaffolding landscape, where efficient data processing can raise your company's profitability. Our software helps you automate tedious and repetitive processes like customer order requests, invoicing, accounting, and many more.

03

Unity of Systems for all Aspects of Design, Asset Control, and Rental

Integration is essential, especially if you use different software to address different areas of your business. The resulting best-of-breed solution should then be intuitive and error-free. For instance, our scaffold inventory solution works seamlessly with our scaffold design software. This way, you can provide an accurate drawing and materials list to your customers without incorrect data duplication. Afterall, poor data management is a major contributor to global construction rework.

04

Customizable Solution with Flexible Pricing Tiers

Being forced to stick with a common pricing package that requires a long-term commitment or per-user pricing package is frustrating. Our licenses are flexible enough to scale with your business. For instance, Avontus Quantify, our scaffold inventory management software is licensed per branch. That way, everyone from the job-site foreman to the branch Chief Financial Officer (CFO) will have access to inventory information.

05

Quick Install, Seamless Onboarding, Easy to Use, and Unlimited Support

For scaffolding businesses – or any for-profit business for that matter – time is money. Our suite of products is designed with the end-user in mind, ensuring quick install with minimal business downtime. In addition, an intuitive system UI also empowers your staff to start using the software in next to no time. With unlimited support and built-in training, you can successfully manage your business operations.

06

Scaffolding Safety Standards

A critical part of scaffolding work is safety. Our software enables you to adhere to local standards and ensure safety compliance, such as leg load calculations, bracing, ties, sills or sole plate configurations.

SCAFFOLD DESIGNER

The complete scaffold design functionalities allow you to create and manage scaffold models all in one place. Say goodbye to paper-based drawing and manual materials counting.

Instant and Accurate Information Capture

With Avontus Scaffold Designer, you can instantly import the building plan in PDF, AutoCAD formats, or even satellite images; then, drag and drop scaffolds into place. Not only does it save time, instant plan importing greatly improves design accuracy too.
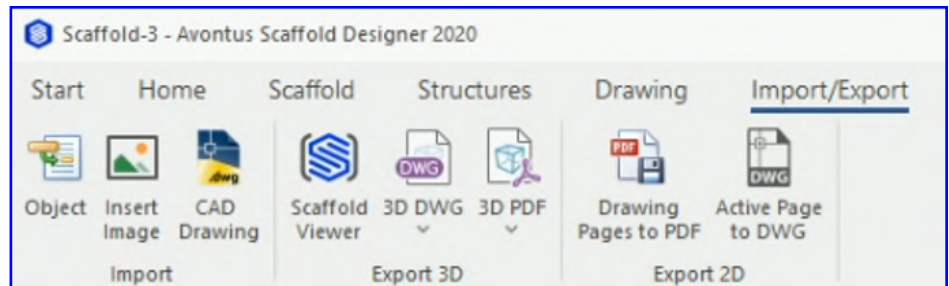
In the Import/Export tab, select the type of file with your building information that you want to import.

Complex Scaffold Models in Minutes

Use Scaffold Designer to design scaffolding models in 3D. Compatible with AutoCAD or BIM packages such as Navisworks, Revit or Tekla Structures, the software offers an intuitive interface as well as automatic and customizable scaffolding designs to help you create complex structures at speed. Then, visualize your design in Scaffold Viewer to experience an interactive 3D scaffold.
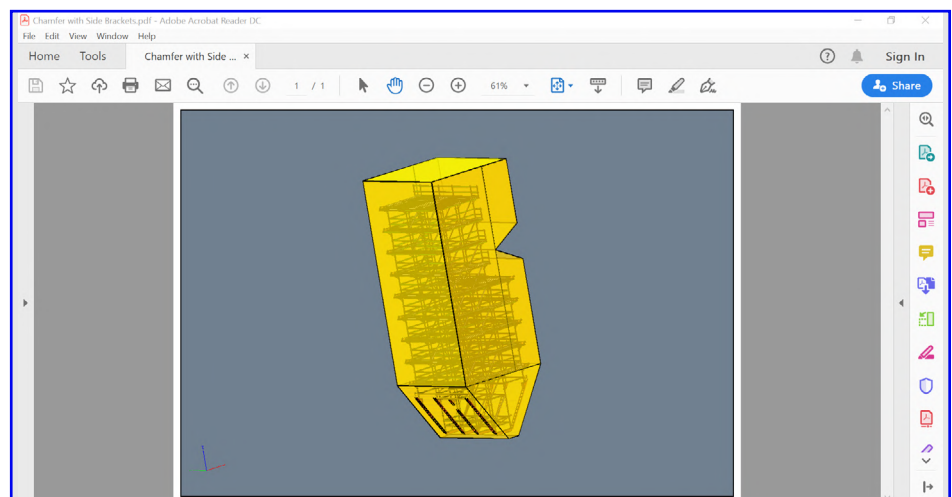
Export your design from Scaffold Designer into 3D PDF format and share it with your customers for confirmation before proceeding with work.

Faster and Competitive Estimates

Being able to produce competitive estimates quickly (yet with utmost accuracy) is the secret sauce that'll put you in a league of your own. With Scaffold Designer, you can automatically generate a bill of materials based on your design. This way, you can cut scaffold drawing and material counting time by up to 90 percent.

Information Customization to Fit Project Requirements

Plus, the software allows you to customize the materials database and add components (e.g. emergency exit route, rescue and loading platform, etc.) into your scaffolding designs.

Not only can you generate a BOM for each scaffold design created, you can also edit it to add parts, modify quantities, or change the description of a part.

SCAFFOLD VIEWER

To ensure that the design you created fits your customer's requirements, the ability to instantly view and review is important. With added visualization capabilities, you have the power to inspect your design accurately before men and materials hit the jobsite.

Stand Out with Futuristic Visualization Capabilities

Scaffold Viewer is equipped with powerful visualization technologies like 3D, Virtual Reality (VR), and Artificial Reality (AR). Leverage one of them to differentiate your business from the rest. Whether it's during bid presentations, design reviews, or handovers, you'll be extra prepared and stand out from your competitors.

Safety-First Designs

By using Scaffold Viewer, you can identify potential safety issues like holes and missing decks that are otherwise obscured in two-dimensional illustration. Walk through the designs as a team to catch these issues before work starts. No more dangerous scaffolding practices.

On-the-Go Design View and Review

Breaking your scaffold models from the confines of a computer couldn't be easier. With Scaffold Viewer, take your designs with you and review them straight at the job site with the team. Everyone will be on the same page before work begins. Design inaccuracies and expensive rework will no longer be the case.
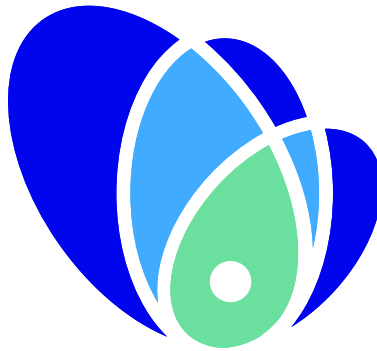
QUANTIFY

Using a solid scaffolding rental management solution, you can monitor all that it takes to complete a project from inventory levels and invoicing to equipment tracking. Since Quantify is easily integrated with Scaffold Designer, no project data gets lost.

Real-Time Inventory Insights

Quantify is the pioneer in scaffolding inventory management software. It expertly handles all requirements that a scaffolding business needs with unlimited and tailored support provided by Software Assurance.

With real-time inventory insights, Quantify offers accurate material estimates based on scaffold designs. The outcome is a production-ready proposal, minus the unnecessary concerns over equipment or material availability. Once you win a bid and get the job, instantly turn your estimate into a shipment right from the software, and you're good to go.

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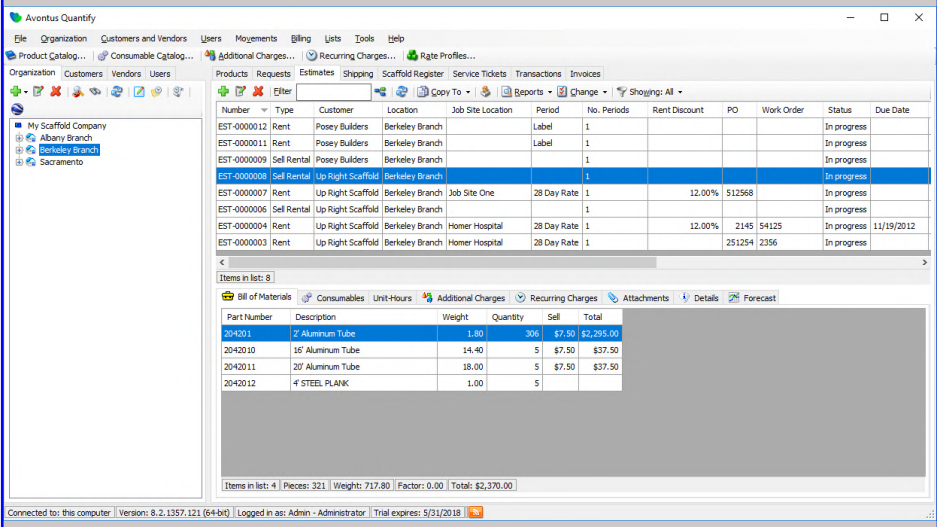
[Avontus Scaffold Designer] generates a great looking proposal sheet, giving customers a great preview of what they'll be working on. This has helped our company get a few jobs that we would not have normally gotten.

—— **Blake Burgess, Scaffolding and Insulation Estimator of B&B Scaffolding/Burgess & Berry Insulation**

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Detailed Scaffolding Progress Monitoring

Since Quantify is an inventory management system, you can use it to monitor the materials and progress of each job at different branches.

Leverage Quantify's Estimates tab to monitor scaffold materials and the status of each job.

Effortless Accounting and Estimates Integration

Besides that, Quantify's .NET API makes it easy to integrate with any accounting system for efficient bookkeeping. Scaffold estimates from Scaffold Designer are fully compatible with Quantify. All you need to do is to save your scaffold estimates and import the file into Quantify to complete the integration. This allows you to avoid redundant data entry and inaccurate information.


Seamless integration is possible between Quantify and Scaffold Designer.

Information Democratization

Quantify has several licenses to choose from: Small Business, Enterprise, and Industrial. Each of these versions offers a per-branch license, not per-user. With everyone having unlimited access to inventory information, no one is left behind when it comes to the latest scaffolding project status. Jobs can then be completed productively.

Seamless Onboarding

If you're already using other scaffold rental software, switching to Quantify and migrating data from your original system couldn't be easier. Just import your existing customer, materials, counts, and rates with a simple tab-separated spreadsheet file.
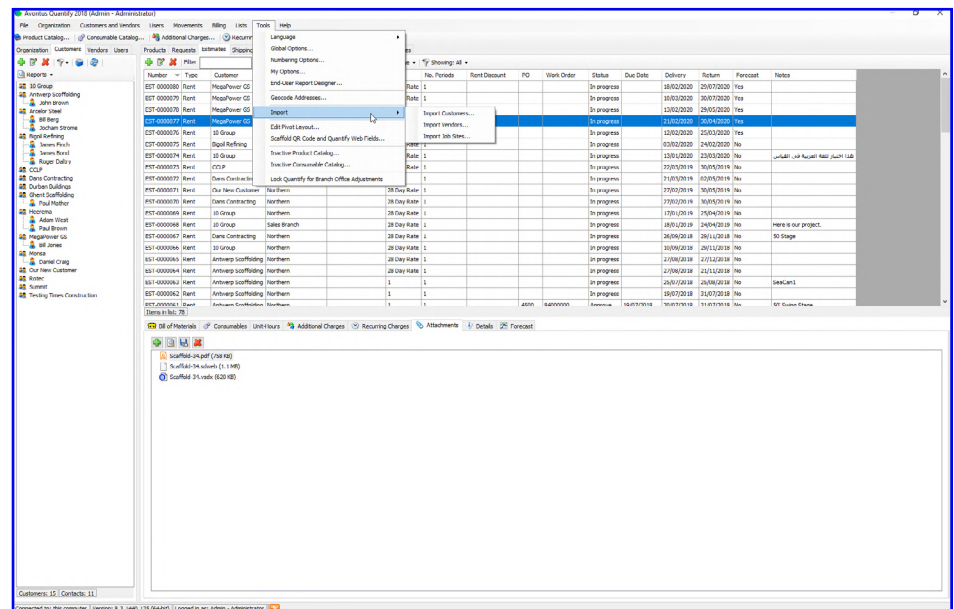
Import important scaffolding business information right from the Import tab.

By adopting Avontus Software into your scaffolding business, you'll benefit from a centralized business workflow. The latest project data will be communicated accurately between your team and your customers throughout the scaffolding process from bid to completion.

CHAPTER

04

ADAPT AND EVOLVE:

How to Nail Your Proposals for Scaffold Projects

The commoditization of construction projects has put scaffolding businesses at risk. Like it or not, you are now in a battle to not only win bids but also to protect profit margins against low bidders.

But low bidding isn't a sustainable financial model. With lower bids, you either risk project delays (or even failure) or operate at a loss. Wondering how leading scaffolding companies consistently win new businesses, even with a bigger price tag?

They build their scaffolding proposals around a value-first approach.

Value contractors focus on developing a well-thought-out scaffolding blueprint that clearly communicates the unique expertise built into each design. And they leverage technologies to deliver on their commitments and increase confidence in customers.

Now is your chance to win the battle. Continue reading to learn how to nail your project proposals with Avontus' suite of products.

THE ECONOMICS OF SCAFFOLDING: SHIFTING FROM COST TO VALUE

In traditional construction management, customers are used to thinking of design and build as discrete, sequential phases. That is, they often consider the price of the design, without considering the cost of execution. Hence, when it comes to scaffolding proposals, lower prices are often associated with higher value.

In reality, construction work often requires modification to ensure quality and safety, which is usually priced as change orders in the final quotation. That's why scaffolding bid estimates are often inaccurate and incomplete, resulting in (unpleasant) surprises for customers, costly project delays and, in the worst case, construction safety hazards.

But customers don't always appreciate this reality. They prioritize lower bids, without fully understanding the creativity and expertise in your design and how a well-thought-out proposal can ultimately save cost in the build phase.

But don't fall into the lowest-bid-wins trap. Compromising quality for low production costs will only damage your reputation as a contractor.

Customers will soon realize the costs of low bidding:

- Hidden fees from change orders, insufficient material costs, or incomplete bid
- Delays in construction work due to poorly defined scope and schedule
- Costly mistakes resulting in field design or modification of scaffolds to ensure safety

The most successful scaffolding companies excel at communicating the value of their designs.

They start by clearly assessing customer requirements and project scope, and then prepare a tailored scaffolding design with accurate estimates. A winning proposal should also allow for alteration or modification of scaffolding as the project progresses without causing delays or profit loss to either customer or contractor.

Today's state-of-the-art scaffold modeling and visualization technologies can help you master your proposals, identify scope risks before you hit the job site, and impress customers with your expertise.

Next, we will show you exactly how to cement your pitch with augmented reality (AR) and virtual reality (VR).

NAIL YOUR PROJECT PROPOSAL WITH AR AND VR FOR SCAFFOLDING

Seeing is believing. The power of AR and VR technologies allows you to bring your scaffold design to life.

Instead of pitching unrealistic deliverables to simply match the market price, you can now walk your customer through an actual scaffold model, whether in a conference room or at the job site, to show them what they will actually pay for.

Below are key elements of a winning scaffolding proposal.

Visualization Capabilities

A killer proposal starts with a robust design. Customers aren't scaffolding experts. It's not easy for them to validate your design and its value. This is where two-dimensional sketches fall short. So, let's focus on enhanced visualization capabilities for your scaffold plan.

Leverage modern digital tools like Scaffold Designer to design scaffolding models in 3D. Compatible with AutoCAD or BIM packages such as Navisworks, Revit or Tekla Structures, the software offers an intuitive interface to help you design complex structures at speed. Then, display your design in Scaffold Viewer, which will turn your sketch into an interactive 3D scaffolding.

Enabled by AR/VR technology, you can even take your design to the job site and scale it to fit the building façade.

As far as safety is concerned, your customers may not even be aware of potential risks with their existing structures. Having visibility into scaffold erection in real life allows them to assess the safety requirements or identify obstructions.

With added visualization capabilities, any modification to the model can be made directly on the scaffolding design. And the new prototype is readily available to all members on-site, reducing downtime and potential hazards as the work progresses.

Accurate Quotations at Speed

With the design at hand, you can easily calculate project quotations that suit your customer's budget.

Scaffold Designer automatically generates a Bill of Materials (BOM) and a set of scaffold metrics for any design, so you can export to Quantify to create a detailed materials cost estimate.

Get ahead of your competitors with automatic estimates, from scaffold drawing, equipment counting, to bill of materials. Cut your design and planning process by up to 90 percent with higher accuracy.

No guesswork and hidden costs, you can further configure the material catalog to reflect the project requirements as and when required.

Brand Differentiation

Utilizing real-time 3D modeling can help speed up your drawing as well as quotations, especially when dealing with field-design and installation processes. With this, you are already a step ahead of the competitors.

By investing in digital technologies, you can capture site requirements, generate necessary equipment, and render 3D scaffolding models to fit the job site so your customers can "see" what is in place virtually.

Your scaffolding proposal doesn't have to be presented on paper. Drive more sales with augmented reality. With complete transparency and precision, your customers will gain confidence even before the project kick-off.

A carefully planned proposal also enables you to ensure that all necessary safety precautions are in place. Having the design available and synced on mobile devices, your crew can stay aligned on any updates from bid to completion. By establishing your reputation through high-value and consistent successful project delivery, you also shut out contractors who bank on low bids.

Bid presentations, design reviews and client-handovers become easier and more efficient. It's a powerful sales tool that enables your business to rise above the rest.

BETTER VISUALIZATION – MORE WINNING BIDS!

As competition in the scaffolding industry heats up, bidding for work requires more than just a good-looking proposal. Robust visualization in scaffold design and accuracy in estimation is key to a winning scaffolding proposal.

Take advantage of modern technologies to bring your scaffolding proposals to the next level. From design to delivery, scaffolding visualization is the key to a successful bid. Don't let the low bidders put a damper on your win-rate or margins. Win customers and retain them with value-focused thinking.

Investment in design software isn't just for accelerating the bidding process. The goal is to build confidence in your customers and deliver value at the beginning of the contract.

CHAPTER

05

HOW YOU WIN:

Guide to Maximizing Your Scaffolding Business ROI

Do you have excess inventory gathering rust in your scaffold yard? Then, you could be missing out on an easy way to maximize your utilization and cash flow.

The scaffolding rental market is projected to grow at 5.32% from 2018 to 2022. Renting out scaffolding and equipment can help you expand your business and diversify your revenue stream.

While it is a highly lucrative business, many scaffolding vendors struggle to attain the levels of success they desire.

Without the right inventory management systems in place, managing all of the moving parts involved can become a nightmare.

Continue reading to learn more about the secrets to maximizing ROI with scaffolding re-rentals.

WHAT ARE THE CHALLENGES FOR SCAFFOLDING RENTAL BUSINESS OWNERS?

A lack of inventory management is the biggest obstacle to running a rental business. Without the right forecasting, management, and invoicing systems in place, you could find yourself exposed to any number of risks, as described below.

Inventory Control

Most scaffolding firms still rely on spreadsheets and paper-based shipping documents for asset management and rental inventory tracking. These approaches are error-prone and full of costly inefficiencies.

Shipping documents are often duplicated or triplicated to track scaffolding rentals from the yard to job site, and back. But they aren't always properly checked and signed.

In some cases, the shipping list gets lost, making it difficult to keep track of rental equipment coming in and out of the yard. When the shipment arrives, it is not counted correctly due to the lack of verification against shipment. This makes it difficult to capture over-shipments or missing components as they travel back and forth between yard and job site.

Another common problem is the lack of a formal count sheet or inspection procedure for rental inventory, thus limiting your visibility into stock levels. While some generic software can handle trackable items with serialized numbers, bulk assets don't get accounted for over time. Without regular inventory counts, businesses can lose a fortune due to lost or stolen inventory.

Unfortunately, this is the reality for many scaffolding businesses.

Billing and Invoicing

Inaccurate order tracking also causes all kinds of headaches to the folks in accounting. They rely on the physical count of the stock to identify discrepancies between inventory records and the actual stock in hand.

Missing or damaged components that fell off your radar end up not being billed at all. Mistakes in invoicing could cost your company hundreds of thousands each month. And this is where the nightmare begins.

You can't charge customers for repair or replacement costs if these problems get discovered too late. At the same time, a drop in inventory due to equipment failure could lead to unplanned downtime, affecting your rental activities.

Yes. Running a successful rental business isn't easy.

Don't pour your money down the drain with inefficient paper- or spreadsheet-based systems or manual inventory records.

We built Quantify to help you automate your rental management, so you can focus on closing deals and improving inventory turnover.

> **Quantify took us from tracking being almost an impossibility to being able to do it with a couple of clicks.**

— **Jack Dalrymple, Director of Branding and Operations of Commonwealth**

QUANTIFY: INTUITIVE AND POWERFUL SOLUTION FOR PROFITABLE SCAFFOLD RE-RENTALS

Quantify offers an all-in-one platform that can streamline your workflow and boost re-rental profitability for both internal and external use. Keep reading to learn how Quantify solves common challenges in scaffolding inventory management and billing.

External Use

You can either import product quantities into the estimate or create a new estimate for rentals based on the current inventory located at the job site:
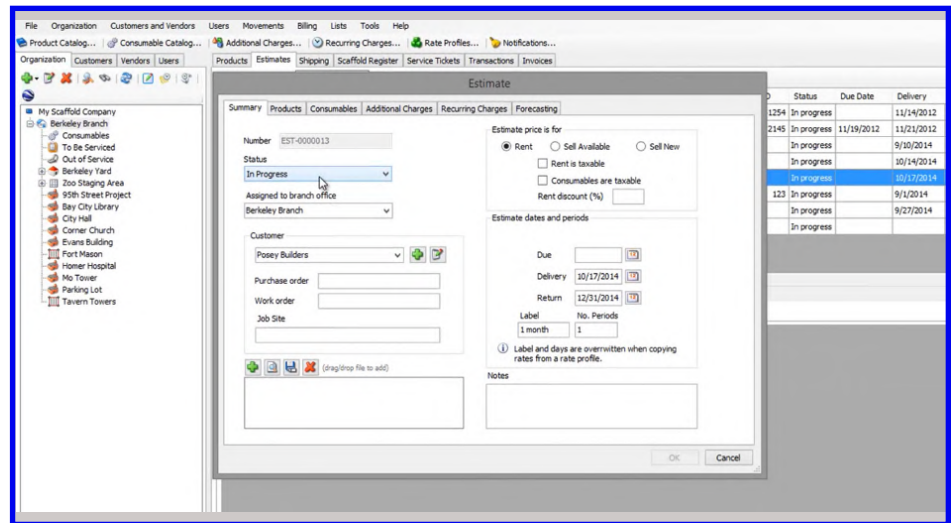
Quantify Estimates

Then, issue the delivery order from your estimate:
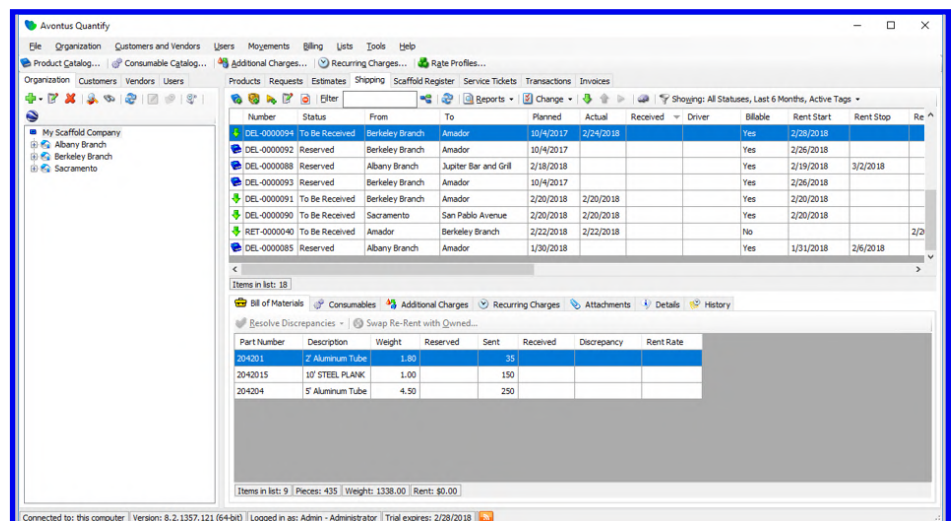
Shipping and Logistics

The best part? You can manage the entire rental fleet to ensure accurate stock levels for all customers in one place:
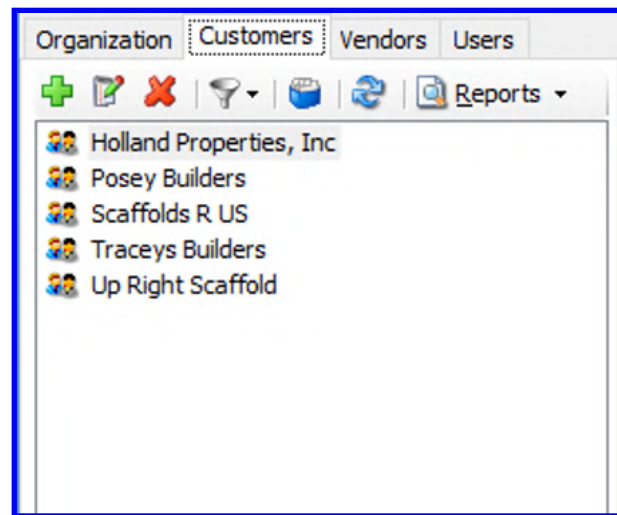
Working with Customers

As mentioned above, you can generate invoices for all charges, including billable amounts for rent and sales of consumable items. You can integrate Quantify with major accounting tools like QuickBooks, Oracle, and Xero, among others.

With inventory tracking, Quantify will immediately flag missing items when they don't make it back from the job.

Inventory Tracking

Internal Use

Quantify integrates seamlessly with Scaffold Designer. This means that with just a click you can generate the materials list for your project in Scaffold Designer. Then, you can export it to Quantify to cross-check inventory and manage your project.

Need to make changes to your plan on the fly? You can edit the Bill of Materials, such as adding parts and quantities, and then create instant estimates for your end-users.

Sharing and managing scaffolding material lists has never been easier.

Besides monitoring rented items and prices during shipment and return. You can also manage ongoing hire billing by items.

These are just a few of the ways Quantify helps you unlock your company's profit potential through re-rentals. See others below!

HOW TO MAXIMIZE REVENUE WITH SCAFFOLDING RENTALS

Beyond inventory management capabilities that you can find in generic software, Quantify takes into consideration every detail that goes into running a profitable scaffolding business.

Maintaining Scaffolding Utilization Rate

Specialized software like Quantify allows you to manage cross-hire in line with your stock record. This way, you can collect data for inventory utilization forecasts.

Generic accounting software only reveals utilization trends over time, meaning you're not able to use it to determine your actual capacity to handle an upcoming job. Quantify solves this problem with instant inventory utilization reports, enabling you to monitor your utilization rate in real time.

For instance, if you are already utilizing 90% of your current inventory, you may not have enough equipment to serve the next customer coming through the door. Or, if your utilization rate is below 70%, you may be leaving money on the table with too much equipment in the yard.

Ideally, you should aim for a 75% to 80% utilization rate for your equipment fleet to ensure a healthy inventory for immediate demand, and consistent revenue stream.

Generating Revenue from the Sale of Consumable Items

With Quantify, you can also sell consumable items that go to a job but never come back. If you have a good stock of items like gloves and harnesses, for example, you can make a profit from them. Quantify enables billing and invoicing of consumable parts as well.

Increasing Profit Margins with Asset Valuation

Inside Quantify, you have the ability to track the list price of your equipment purchases and set your rental price based on various costing factors such as average cost.

By blending the original cost into total average fleet cost, you can ensure higher ROI from the monthly rental rate, no matter what happens with daily business transactions.

For example, if you purchase 100 items at $3 per piece and another 100 items at $6 per piece, your average cost is $4.50. Then, you can charge a fixed percentage of the list price ($4.50) as a standard rental rate.

Using accounting software, you can also track the total asset value and take a depreciation deduction on your tax return to improve profit margins.

To run a wildly successful scaffolding business, you first need to get organized, especially when dealing with high-volume equipment rentals.

Leverage Avontus technology to streamline your processes, add efficiency to operations, and maximize your profit the right way.

Track your asset movements with real-time inventory visibility. Improve accounting efficiency with fast and accurate billing automation. Gain insights into your business with industry-specific software solutions.

CONCLUDING THOUGHTS

In the competition for customers, most contractors aim to get their bid out the door before anyone else, even if they have to compromise the quality of the scaffold model.

With that in mind, we built our products to support the three core pillars of a scaffolding proposal, speed – quality – price, and help you win the job. Before Avontus, AutoCAD had been the industry norm when it came to computer-aided design (CAD) applications.

Many contractors rely on software to speed up the design process. But being fast doesn't bring you far. Successful scaffolding businesses win with value-first proposals - they are able to communicate the critical construction components for precise scaffolding erection, ensuring accurate material counting for competitive quotes, mitigating potential risks, and controlling costs. And that's where Avontus comes in. For a more in-depth comparison between AutoCAD and Avontus Scaffold Designer, you can refer to the Appendix section.

A powerful industry-specific solution can revive your scaffolding company's efficiency rate and improve your profitability. Soar to greater heights using the Avontus solutions below:

SCAFFOLD DESIGNER

With its powerful scaffolding design capabilities, create accurate and safe designs for projects of all sizes. And then generate a bill of materials so you'll know exactly what you need to materialize your plan.

Learn More

SCAFFOLD VIEWER

Leverage its powerful 3D, VR, and AR features to visualize and walk through your scaffolding designs on your computer or phone. Virtual handovers couldn't be any easier.

Learn More

QUANTIFY

Easily monitor inventory, ship materials, generate invoices, set reminders, manage re-rentals, and oversee all your scaffolding jobs within one user-friendly software.

Learn More

APPENDIX

Avontus Scaffold Designer vs. AutoCAD: Guide to Scaffolding Design Software

Considering the requirements of scaffolding design and construction, we will weigh the value of AutoCAD and Scaffold Designer based on the following points:

01 Scaffold-specific features

02 Materials estimates

03 Visualization capabilities

04 Cost and usability

Learn more about the key differentiators between Scaffold Design and AutoCAD below.

01

Scaffold-specific toolsets for scaffolding business

AutoCAD

AutoCAD itself provides a number of toolsets and apps for multiple architecture supports, such as electrical and mechanical toolsets, making it one of the most widely used CAD softwares in the market.

While it's hard to beat the extensive drawing capabilities offered by AutoCAD, the built-for-all design functionality also creates some major drawbacks. This is especially true for scaffold designers, since you'll need to manually create even basic components like brackets, ledgers, connector bays, or loading bays, depending on the scaffolding types and safety requirements.

Scaffold Designer

Scaffold Designer is packed with every little detail that goes into the construction of scaffolding, such as independent scaffolds, power plant boilers, dance floors, bird cages, circular tanks, hanging scaffolds, cantilevers, and bridges.

You can even customize a pre-built scaffolding model to cut scaffold drawing and counting time by up to 90 percent. The software incorporates the specifications of popular scaffolding types like Ring, Cup, and Kwikstage system scaffolding among others, so you'll have a construction-ready design.

02

Materials counting for quick and accurate bill of materials

AutoCAD

AutoCAD doesn't provide a materials counting feature for scaffolding design. Instead, you can install a third-party plugin, [Scaffold Counter by Avontus](#), to generate your bill of materials.

Scaffold Designer

Once you have completed a design, Scaffold Designer automatically generates a bill of materials to help you identify the materials needed, make necessary modifications, and predict equipment availability.

Plus, you can integrate Scaffold Designer with Avontus Quantify to ensure accurate material counting for competitive quotes, mitigating potential risks, and controlling costs from bid to completion.

03

Visualization for a killer proposal and scaffolding construction

AutoCAD

When it comes to visualization, 3D modeling is part and parcel of the software. AutoCAD is one of the most powerful 2D and 3D CAD softwares in the market, especially for engineering and architectural design.

Scaffold Designer

The recent Scaffold Designer 2020 release has pushed Avontus's 3D design capabilities closer to its counterpart. Some of the key features include 3D drawings with more extensive shading modes, vector-sharp views of the 3D model, and export to 3D functionality that is compatible with BIM packages, AutoCAD, and Acrobat PDF Reader, among others.

Whether in the boardroom or at the job site, using Scaffold Designer and Scaffold Viewer, you can easily bring your design to life with the added power of augmented and virtual reality (AR/VR).

This additional feature enhances scaffolding visualization capabilities, helping you communicate your vision to customers effectively and gain their confidence. Crews can also "carry" the design in their pockets for real-time construction execution and safety precautions.

04

Usability and costs

AutoCAD

Since it is created for regulated professions like engineering, architecture, and construction, AutoCAD users are typically required to get certified to use the product, which covers extensive knowledge beyond scaffolding requirements. As such, hiring an AutoCAD expert is also a big investment for scaffolding companies.

Another drawback with its complexity is that you can only communicate the scaffolding proposal and construction to non-AutoCAD users on paper. This may take much longer to coordinate work between designers and the on-site crews.

Pricing: $200 monthly subscription for a stand-alone single-user license.

Scaffold Designer

Scaffold Designer offers ease of use for any user, even non-design experts. The powerful editor allows you to customize scaffold models to reflect the actual building condition with high accuracy. Featuring a drag-and-drop interface, Scaffold Designer offers the same automation experience that you have in AutoCAD, tailored to scaffolding. The best part? You can learn at your own pace with built-in training videos.

Scaffold Designer really shines when it comes to bidding. If you're relying on AutoCAD-trained engineers to build 3D models for proposals, you're likely investing thousands in bids that may or may not be successful. With Scaffold Designer, your sales team are able to create the designs themselves, in a fraction of the time.

Pricing: From $169/user for monthly subscription or customized pricing for on-premise deployment.

Need a quick overview of AutoCAD and Scaffold Designer? Get the printable comparison chart below.

	AutoCAD	Scaffold Designer
Design capabilities	• Complex drawing tools for architects, engineers, and construction professionals	• Support major scaffolding types and manufacturers • Simple navigation with specific toolsets for scaffold designer • Customizable scaffold design structure • Design to your local regulatory standards
Visualization capabilities	• 2D drawing and 3D modeling • Annotate drawings • Export to DGN files, Navisworks, and Bing Maps	• AutoCAD-like 3D modeling capabilities • Compatible with BIM packages, 3D PDF, AutoCAD, Navisworks, SCIA Engineer, Microsoft Office, and more for cross-platform collaboration • Augmented reality and virtual reality enabled for visualization
Materials estimation	• Requires plugin for scaffolding design work and materials calculation ([Scaffold Counter by Avontus](#))	• Automatic bill of materials generation • Fully customizable material list for modification • Accurate cost estimation • Integrate with Quantify for asset control and rental management
Usability	• Steep learning curve • Requires intensive training	• User-friendly with built-in training videos • Avontus provides on-demand training
Labor cost	• AutoCAD certified engineers are expensive • Required additional purchase of scaffolding design plugin for materials counting	• The software can be used by anyone who knows about scaffolding • Cut down on labor-intensive procedure like equipment counting
Scalability	• Subscription-based (from $200/user/month) • Stand-alone license for a single user	• Subscription-based (from $169/user/month) • 30 Day Money Back Guarantee for new subscriptions • Scalable based on your enterprise need

SOFTWARE THAT TRANSFORMS YOUR SCAFFOLD BUSINESS

Avontus Software brings efficiency, predictability, and control to every stage of scaffold projects. Discover powerful new ways of working, eliminate uncertainty and guesswork, and transform your scaffold operations with modern software trusted by industry leaders everywhere.
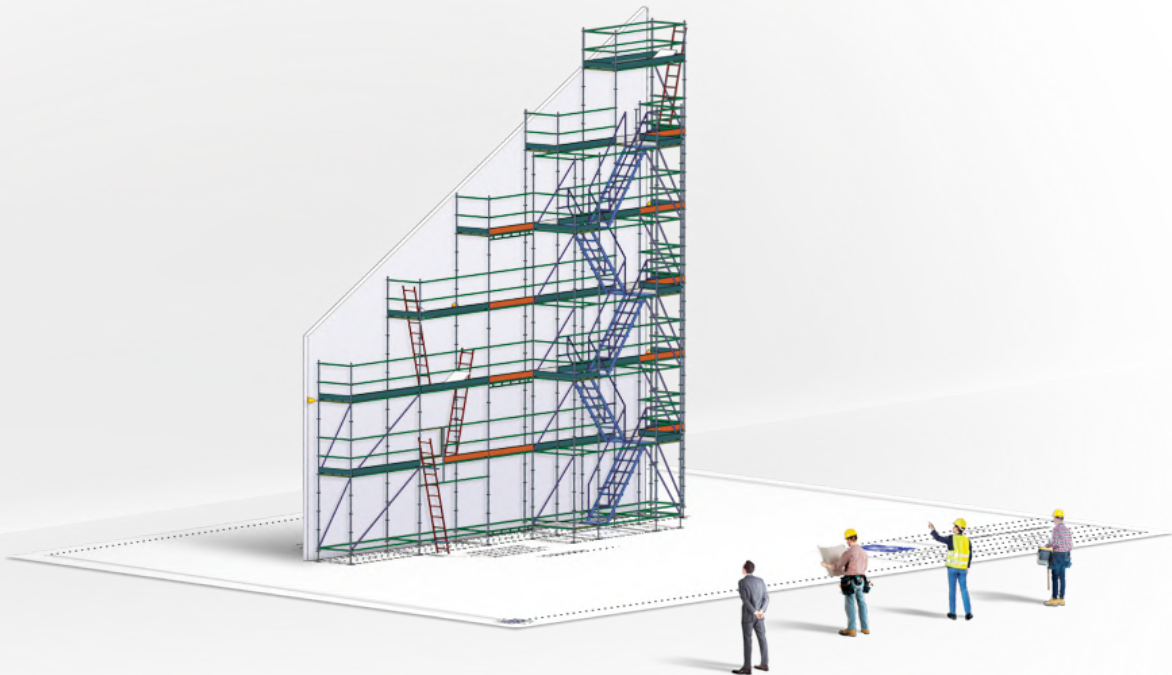
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