AN ESTIMATOR'S
GUIDE

ASSESSING AND PICKING THE RIGHT SOFTWARE

On Center
SOFTWARE
by ConstructConnect

Getting Started

Takeoff and estimating software has been around for almost 30 years, but many estimators still rely on traditional methods to conduct business. Estimators may be using tools that include pencils, highlighters, rulers, and spreadsheets.

While there's nothing wrong with getting the job done with dated techniques, today's construction businesses are quickly adopting technology to help them do better. Estimating is at the heart of any construction business. Many growing companies find estimating technology, especially software including takeoff tools, can help eliminate mistakes and increase revenue.

With the right software technology, companies should:

- Improve accuracy
- Decrease bidding time
- Increase bid volume
- Win more projects
- Make more money

So, how do you know if your business is ready for estimating software? Take the following survey on the next page to find out.

Let's get started

Inside This Guide

What you'll learn

Following this short discovery questionnaire, and with the information in this eBook, you'll be able to weigh the risk of the status quo and the potential rewards of adding estimating software.

We will help you:

- Assess the effectiveness of your estimating process and software needs
- Determine action required to meet business requirements
- Understand available solutions that fit your unique business needs
- Develop a plan to trial software and ensure it is the right fit
- Determine key stakeholders to involve in software evaluation process

This guide will help you determine where your company is and where you need to be going.

Do I Need Takeoff and Estimating Software?

	YES	NO
My current process for takeoff and estimating is manual.		
My existing digital takeoff and estimating process is limiting my ability to grow.		
I have more projects to bid than I have time for.		
Our team loses documents.		
Estimating accuracy is an issue that prevents my company from making money.		
I do not have confidence in my bid accuracy and anticipated profit margins.		
A historical record of takeoffs and estimates would be valuable for working on new/future project bids.		
Staying organized and keeping relevant bid data, including change orders, in one project record is a goal that my company hasn't been able to reach.		

If you answered "Yes" to three or more questions, keep reading for the 7 Steps for Selecting the Right Software Estimating Tools. If you had two or fewer "Yes" answers, skip to page 15 for next steps in your estimating journey.

Yes, I need takeoff and estimating software.

7 Steps to Success

Great! You've recognized the tremendous value takeoff and estimating software will have on your business. These tools are widely available, affordable, and easy to implement. We'll explore seven steps to selecting the right tools, included checklists and tips throughout. You should begin with examining and understanding your current workflow. Then you can research the marketplace, and determine who among your staff needs to be involved in the selection and implementation process.

Selecting a software tool can seem complicated and time-consuming. Not to stress, this eBook will walk you through the process.

STEP 1: Document Your Current, Internal Business Process for Estimating

To see where you need to go, you need to understand your current process. This step will take the longest, but it is the most valuable. Visualize and map your process to see how it works and who is involved at every step. In doing this, you will discover where your gaps and greatest needs reside.

On the next page is an example of a typical process map for estimating. Yours may be different, but this can help you get started.
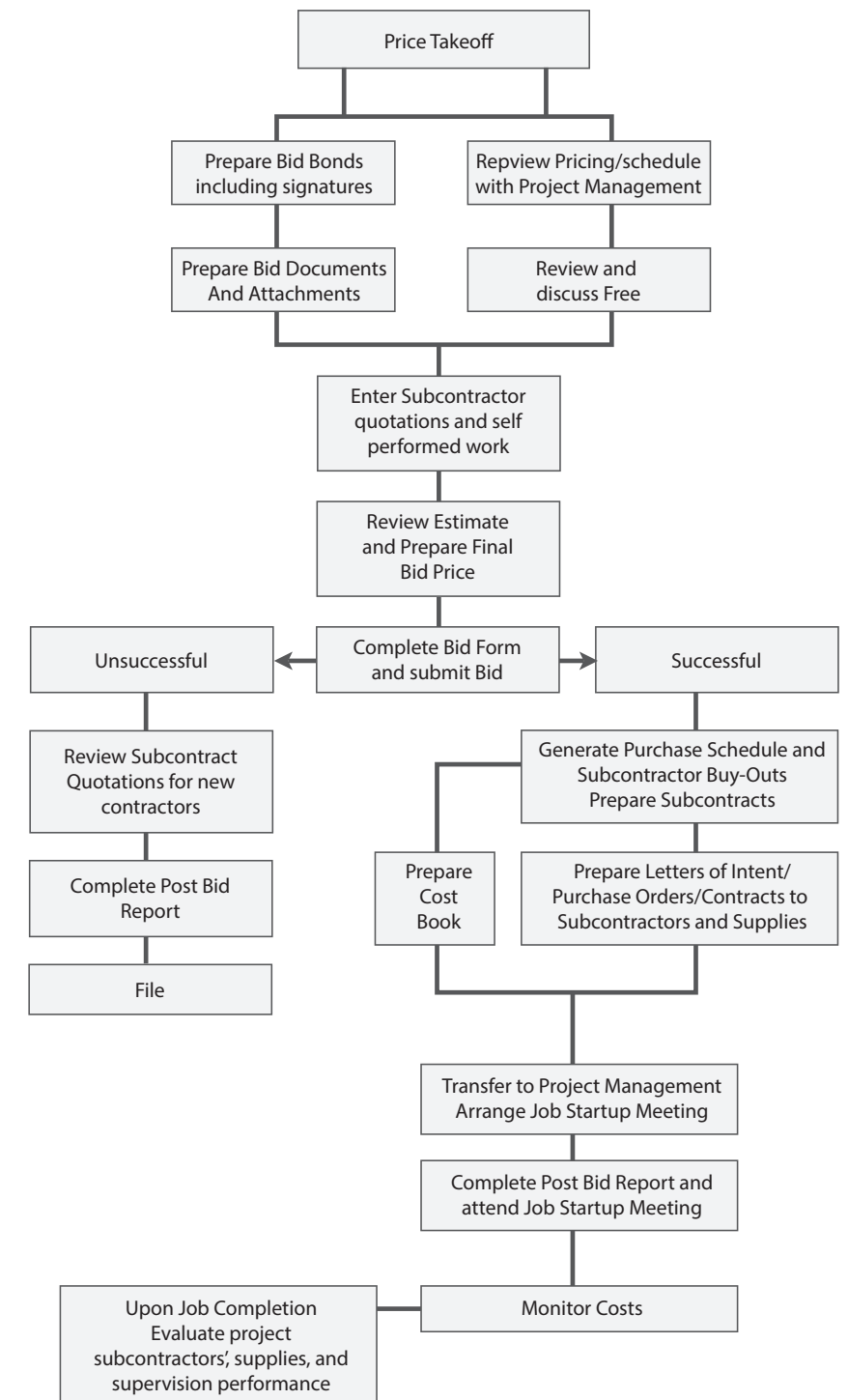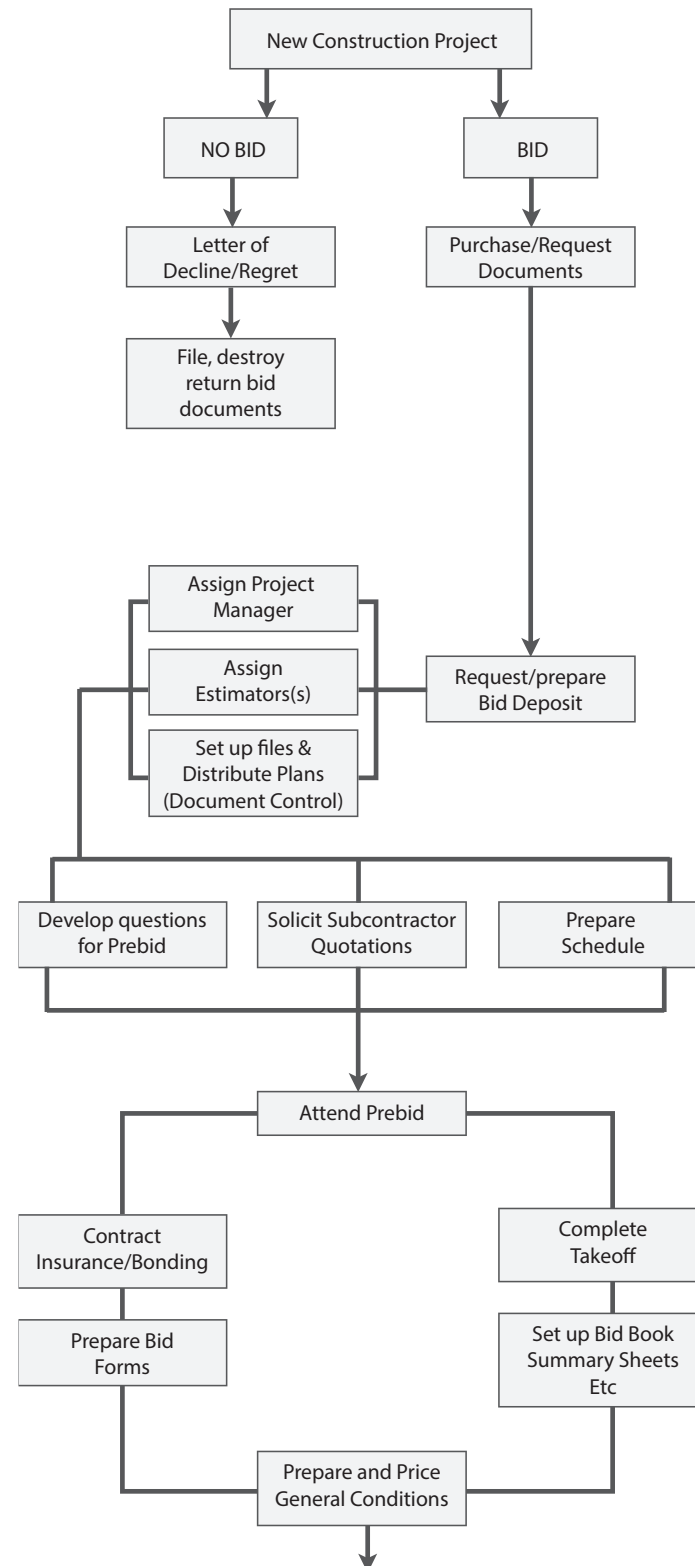
The typical process steps include:

- Find and assess open projects
- Select projects to bid
- Gather plans, blueprints, and scope of work
- Assign project manager and estimator(s)
- Prepare and distribute files
- Solicit subcontractor vendor quotations and prepare schedule
- Attend pre-bid
- Perform takeoff
- Estimate

Estimating Process Flow Chart

(Source : Mahoney, W.D. PE, (Ed.). (2011). Standard Estimating Practice, 8th Ed.- American Society of Cost Estimators. pp 21 & 22. Anaheim, CA: BNI Publications)

```
                    ┌──────────────────────┐
                    │ New Construction     │
                    │ Project              │
                    └──────────────────────┘
                       │                │
                ┌──────────┐        ┌──────────┐
                │  NO BID  │        │   BID    │
                └──────────┘        └──────────┘
                     │                   │
            ┌────────────────┐    ┌──────────────────┐
            │ Letter of      │    │ Purchase/Request │
            │ Decline/Regret │    │ Documents        │
            └────────────────┘    └──────────────────┘
                     │                   │
            ┌────────────────┐           │
            │ File, destroy  │           │
            │ return bid     │           │
            │ documents      │           │
            └────────────────┘           │

    ┌────────────────┐                   │
    │ Assign Project │                   │
    │ Manager        │                   │
    └────────────────┘                   │
    ┌────────────────┐    ┌──────────────────┐
    │ Assign         │────│ Request/prepare  │
    │ Estimators(s)  │    │ Bid Deposit      │
    └────────────────┘    └──────────────────┘
    ┌────────────────┐
    │ Set up files & │
    │ Distribute Plans│
    │ (Document Control)│
    └────────────────┘

┌──────────────┐  ┌──────────────┐  ┌──────────┐
│ Develop      │  │ Solicit      │  │ Prepare  │
│ questions    │  │ Subcontractor│  │ Schedule │
│ for Prebid   │  │ Quotations   │  │          │
└──────────────┘  └──────────────┘  └──────────┘

              ┌──────────────┐
              │ Attend Prebid│
              └──────────────┘

┌──────────────┐            ┌──────────────┐
│ Contract     │            │ Complete     │
│ Insurance/   │            │ Takeoff      │
│ Bonding      │            │              │
└──────────────┘            └──────────────┘
┌──────────────┐            ┌──────────────┐
│ Prepare Bid  │            │ Set up Bid   │
│ Forms        │            │ Book Summary │
│              │            │ Sheets Etc   │
└──────────────┘            └──────────────┘

              ┌──────────────────┐
              │ Prepare and Price│
              │ General Conditions│
              └──────────────────┘
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                    ┌──────────────┐
                    │ Price Takeoff│
                    └──────────────┘
                      │           │
        ┌──────────────────┐  ┌──────────────────┐
        │ Prepare Bid Bonds│  │ Repview Pricing/ │
        │ including        │  │ schedule with    │
        │ signatures       │  │ Project Management│
        └──────────────────┘  └──────────────────┘
        ┌──────────────────┐  ┌──────────────────┐
        │ Prepare Bid      │  │ Review and       │
        │ Documents        │  │ discuss Free     │
        │ And Attachments  │  │                  │
        └──────────────────┘  └──────────────────┘

              ┌──────────────────┐
              │ Enter Subcontractor│
              │ quotations and self│
              │ performed work   │
              └──────────────────┘
              ┌──────────────────┐
              │ Review Estimate  │
              │ and Prepare Final│
              │ Bid Price        │
              └──────────────────┘

┌──────────────┐  ┌──────────────────┐  ┌──────────────┐
│ Unsuccessful │◄─│ Complete Bid Form│─►│ Successful   │
└──────────────┘  │ and submit Bid   │  └──────────────┘
                  └──────────────────┘

┌──────────────┐                  ┌──────────────────────┐
│ Review       │                  │ Generate Purchase    │
│ Subcontract  │                  │ Schedule and         │
│ Quotations   │                  │ Subcontractor Buy-Outs│
│ for new      │                  │ Prepare Subcontracts │
│ contractors  │                  └──────────────────────┘
└──────────────┘
┌──────────────┐    ┌────────┐   ┌──────────────────────┐
│ Complete Post│    │ Prepare│   │ Prepare Letters of   │
│ Bid Report   │    │ Cost   │   │ Intent/ Purchase     │
└──────────────┘    │ Book   │   │ Orders/Contracts to  │
                    └────────┘   │ Subcontractors and   │
┌──────────────┐                 │ Supplies             │
│ File         │                 └──────────────────────┘
└──────────────┘
                    ┌──────────────────────┐
                    │ Transfer to Project  │
                    │ Management Arrange   │
                    │ Job Startup Meeting  │
                    └──────────────────────┘
                    ┌──────────────────────┐
                    │ Complete Post Bid    │
                    │ Report and attend    │
                    │ Job Startup Meeting  │
                    └──────────────────────┘
┌──────────────────────┐    ┌──────────────┐
│ Upon Job Completion  │    │ Monitor Costs│
│ Evaluate project     │    └──────────────┘
│ subcontractors',     │
│ supplies, and        │
│ supervision performance│
└──────────────────────┘
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STEP 2: Identify Who Needs to be Involved and Why

Investing in new tools to help you work smarter and faster will sometimes be welcomed with open arms and other times your staff will resist. Change can be hard. It's important to recognize these two categories of employees: those who need to be involved and those who will be impacted, and therefore informed about the upcoming changes. Early buy-in from employees can make the difference in how implementation is perceived and communication is the key to earn that buy-in.

Traditionally, software implementation for takeoff and estimating does not cause disruption across the entire organization. The process mapping involved in Step 1 will help you understand which departments are impacted and how. Now it's time to identify the individuals who you need to keep informed or directly involve in the selection and purchase.

Here are some examples of stakeholders that can be impacted by the adoption and implementation of takeoff and estimating software tools.

- Estimating staff
- Project Managers
- Field Supervisors and Operators
- Owners and General Managers
- Accounting Department
- IT Department

Estimators are the most impacted by the software. Owners and general managers are also key to the process. Depending on your business's workflow, others may need to know about the software but don't need to be involved in the research and selection. In most cases,

those job titles include designers/architects, engineers, field operations' personnel, and accountants.

Take a moment and identify who needs to be involved, who will be impacted, and how.

Identify Key Stakeholders

Decision Maker (signs the check or authorizes the credit card charge):

Impacted and needs to be involved:

Impacted and needs to know:

STEP 3: Specify Your Requirements

Knowing your software requirements is crucial to selecting the right tool for you and your business. Basically, this list should be created, in writing, to document your system requirements and dependencies, as well as the software functions and capabilities you desire.

To begin this process, identify your end goals. As you move forward toward making a decision and through implementation, check your goals and see if you are meeting them. Adjust as needed. Begin the process by asking these questions:

- Do you want to increase time to complete bids?
- Do you need to improve your bid/win ratio?
- Do you need more visibility into estimated and actual costs to identify profitability pitfalls?
- Do you need software that is easy to learn for all skill levels? How many people will use the software?
- Do you have an expectation for product maintenance and/or the frequency of software updates?
- Can all of the providers deliver the level of tech support needed?
- How do you get your team fully trained?

After you've set goals, you should be able to zero in further on your needs.

Rank the following 10 elements for software capabilities from most important to least important to help you assess the options.

Ease of use (to learn and understand)		Wide range of training options available
Ease of implementation		Searchable historical data
Limited downtime for product updates		Easy reporting
Business-day tech support		Mobile/cloud capabilities
Smooth integration with other systems		Scalability (designed for single user or teams)

Technical Considerations When Listing Your Requirements

Here are some helpful tips for comparing different software programs.

System Requirements & Dependencies

- Web-based, Server-based, Desktop-based or Cloud
- Accounting integration
- Number of users
- Data export/import and sharing
- Mac, PC, or both
- Windows 7, 10

Software Functions & Capabilities

- Multi-user database
- Color-coded takeoff features
- Overlay for recognizing changes and addendums
- Ability to quote by zones or phases
- Ability to share/send plans and bids
- Intuitive layouts and functionality for early-user adoption
- Pre-populated and customizable bid sheets
- Annotations
- Add Filtering/Grouping/Searching

Service and Support Update Process

- Software update process
- Updates are automatic or require the user to opt-in
- Updates are non-disruptive, won't interrupt access to data or require a reboot
- Users receive communications ahead of scheduled updates through email and the in-application notices

Technical Support

- 24-hour, business-day support available
- USA-based or offshore
- Expected response and wait times
- Available online and via telephone

Subject Matter Expertise

Does the provider understand construction estimating or are they just a software company?

Companies with expertise and depth of knowledge in the construction industry are more likely to not only understand your unique business needs, but deliver hands-on estimating support.

PRODUCT COMPARISON				
Features	Product A	Product B	Product C	Product D
System Requirements				
Install	Cloud	Desktop-based	Cloud	Web-based
Accounting Integration	√	–	√	√
Number of Users	Multiple	1	Multiple	Multiple
Operating System	Windows 10	Windows 7, 10	Windows 10	Mac OS, Windows 10
Features				
Overlay	√	√	√	√
Multi-condition takeoff	√	√	–	√
Plan/Drawgin Sharing	√	√	√	√
Zones/Phases	√	–	–	–
Annotations	√	√	√	√
Filtering/Grouping	√	–	√	√
Technical Support				
Hours	24/5	24/7	M-F, 8-5 CT	M-F, 8-5 CT
Location	USA	Off-shore	Web-based	USA
Availabilty	Phone, Online	Phone	Online	Phone, Online
Service				
Rating	****	*****	***	***

STEP 4: Do Your Research and Find Alternatives/Options

There are many software programs to choose from for your company. Approach the software purchase like other business purchases. Do your research and due diligence. Here are some tips to get you started:

- Notify employees you are going to purchase software
- Tap into your professional trade networks and associations for software recommendations
- Visit software company websites to see what they have to offer
- Match company features to your needs
- Schedule demos and include the right employees to participate
- Start and evaluate free trials – this takes time, but can make a huge difference in your decision (involve the right employees in this step)
- Ask the companies you like for references

One important step is understanding the real cost of the investment.

There are ways to research this to get a handle on what you are spending and why. Think about:

- The license and ongoing maintenance
- Training now and in the future
- Hardware setup, as well as internal IT, and security/network system setups

Look for hidden costs. Ask the company representative any questions you have about cost and expect thorough answers. You want to do business with a reputable and trustworthy company.
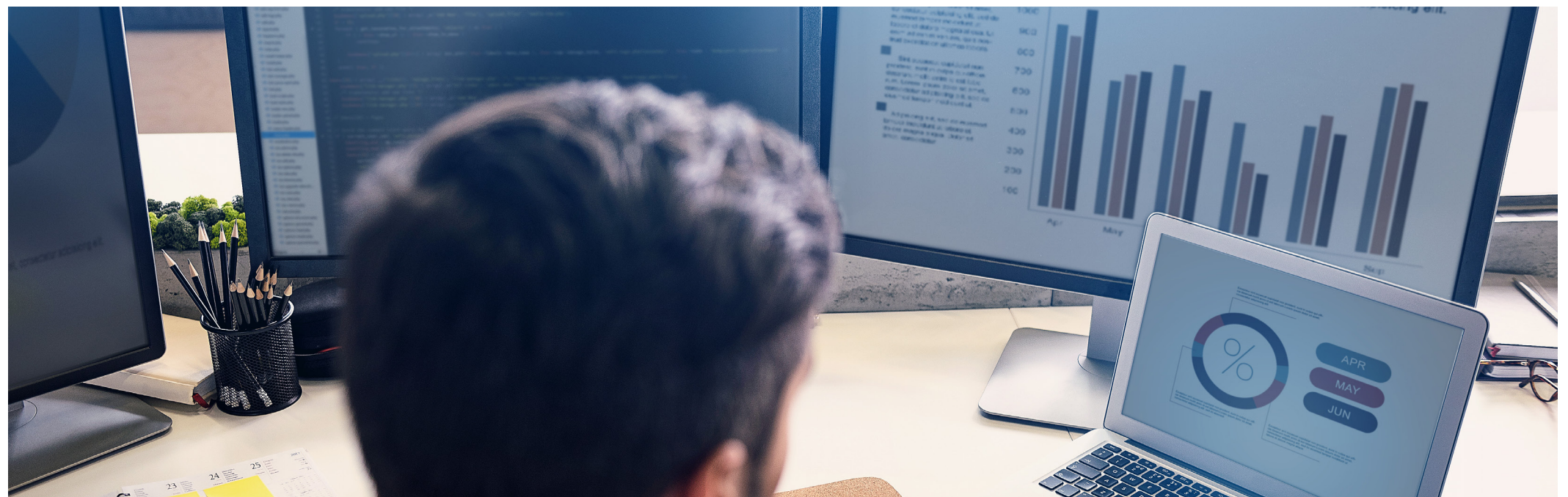
STEP 5: Make a Selection and Develop an Implementation Plan

You've made your takeoff or estimating software selection. Now, you must create an implementation plan to ensure the new product launch is a success. Most takeoff implementations are fairly quick and easy -- just install, train, and go. For estimating software, you'll need to carve out a little more time as it typically requires some customization based on unique costs and/or database integration.

No matter the software type, you will need to communicate your plans to all of the stakeholders identified in Step 2. Your checklist should include a timeline with a go-live date and any additional steps for install, customization, data migration and/or integration, and training. You can either name a go-live date for your new software or specify the first project that will be completed using the new software.

STEP 6: Launch Your New Software

It's time to officially modernize your estimating process with the implementation of your new software. Most estimating software is simple to launch. Most programs include a simple two-step download and activation process. Cloud-based programs are available through a Software as a Service (SaaS) subscription and accessed through a web browser. Your provider will help you through this process.

At the start of implementation, test at least one project to verify how the system is working. This will get everything off to a good start.

Get Trained
While installation and activation is easy, training will take a little time. Follow the recommendations of your software provider on how much time to allow for full implementation. Set these hours aside for your staff and ensure that the instruction is thorough.

Remember that once training is over, learning is not. It will take time to adapt so, again, have realistic expectations. Before long, your company will reap the benefits of your new technology.

Connect/Integrate
Your provider will assist you in properly integrating your new software with the software your accounting department uses. This integration allows for communication between those departments and further

simplifies and organizes your process.

This is also when you build or customize cost databases for accuracy. Most companies find that these databases, when properly updated, rev-

olutionize their efficiency and improve profit margins. To get the database up-to-speed, initial information should be entered, including historical labor, material, and completion data from successful jobs. This provides the necessary background information to make the database more than functional. The more accurate and up-to-date information provided, the more useful and customized the tool will be for the team.
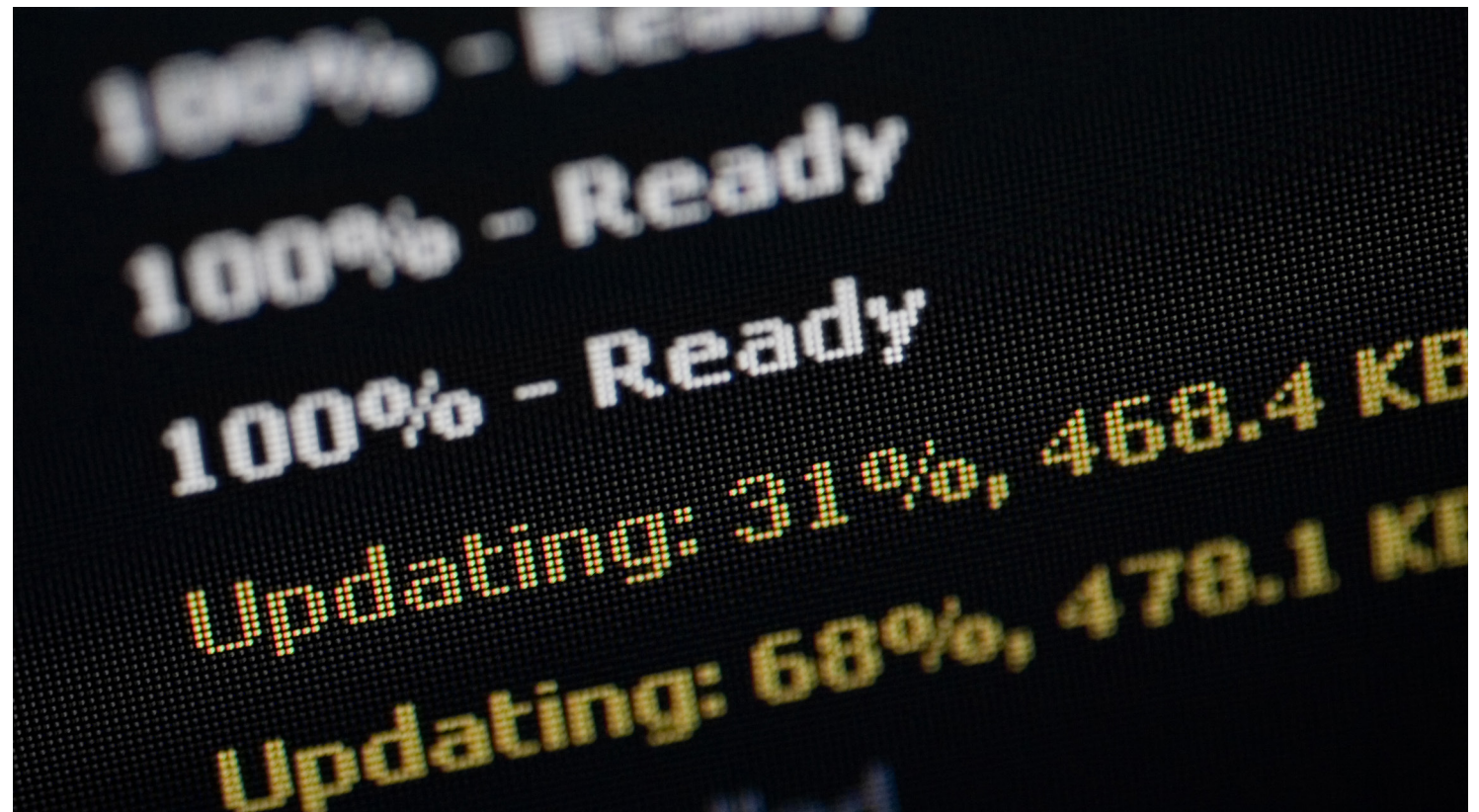
STEP 7:   Conduct a Post-Installation Review

Take time to reflect, analyze, and adjust.

With any investment, it is important to measure its success. The impact of estimating software may be evident rather quickly to your bottom line.

After the software is fully launched, your business should be operating normally. Take the time to gather feedback on the implementation process and the tool's performance. Talk to employees who were involved in the decision-making, and those who have been impacted by the decision. For a formal assessment process, consider these suggestions:

Think back to your original software goals as identified in Step 3. Ask yourself:

- Do you have visibility into estimated and actual costs to identify profitability pitfalls?
- Is the software easy to use? Has it been well adopted by your staff?
- Do you understand what is needed for maintenance?
- Is your provider responsive to your questions and needs?
- Is your team fully trained, or is there more to cover to fully implement your investment?

To conduct a true analysis, you should look at your results over a period of time: quarterly, one year, and two years after implementation.

Calculate your ROI

When you perform this review, along with gaining input from your employees, you should be able to easily ascertain the tangible and intangible benefits of your estimating software.

Here is one example:

ROI ASSESSMENT		
DISCOVERY		
Number of Estimators	1	
Projects bid per week	2.5	
Average Price Per Project Bid	$180,000	
Close rate on Projects Bid	20%	
Average Net Profit Margin?	9%	
PRE-SOFTWARE SITUATION		
Bidding	130	jobs per year
Those jobs are valued at about	$23,400,000	
We're winning	33	jobs per year
Our annual revenue is about	$5,940,000	
We're making about	$534,600	in net profit
THE BENEFIT, POST-SOFTWARE		
Bidding	169	jobs per year
Close rate on Projects Bid	30%	
We're winning	51	jobs per year
Our annual revenue to about	$9,126,000	
We're making about	$821,340	in net profit
Which is an increase of	35%	

Great Software, Great Rewards

With the right tools, higher ROI is around the corner

Making a decision about software for your construction business can be intimidating, but it doesn't have to be that difficult. Simply follow the steps in this eBook and get on your way to a simple, smooth transition to using your new estimating software. You'll soon be enjoying the benefits of your decision.

Right now, I don't need digital estimating technology.

How will I know when I'm ready?

Since you had fewer than three "Yes" answers, you probably aren't desperate for a better and/or faster way to work. You appreciate the art of your craft and can afford to be selective in the projects you bid. In all likelihood, great relationships with your customers allow you to secure work without the current need for historical data. Electronic documents and change orders don't plague your projects.

If your company continues to grow, you may find a need for software. You'll know you're ready for digital takeoff and estimating tools when your company is:

- Losing jobs too frequently
- Losing money on jobs, but you don't know why
- Receiving more jobs to bid than can be completed
- Requiring access to historical bid data
- Struggling to stay organized with complex projects is difficult
- Requiring more time to look at project planning when bid numbers are created
- Taking too much time to build bids
- Making too many mistakes on bids

As with any business, you should evaluate your company goals and direction on a regular basis. Make a note of your challenges, then take the above survey every six months, giving you the chance to keep up as your company evolves. This will allow you to detect the need for software early in the process – before mistakes and slow bids have consequences for your construction company.

Meanwhile, if you'd like to learn more about estimating software for future reference, visit www.oncenter.com.

On Center SOFTWARE
by ConstructConnect

This eBook has been brought to you by On Center Software.

On Center Software is a trusted, established, and growing construction software company developing on-premise and Software as a Service (SaaS) takeoff, estimating, and production tracking solutions from their office in The Woodlands, TX. For nearly 30 years, On Center Software has stayed focused on helping estimators win more bids and turn winning bids into profitable projects. Today, the company boasts more than 40,000 users in more than 60 countries and their products are taught at more than 300 universities and institutions.