GOOD CONNECTIONS[®]



SPRING 2024





Optimizing Truss Design



Managing Material in iSource





2024 UPCOMING U.S. & CANADA HOLIDAY OFFICE CLOSURES

U.S.

Memorial Day Monday, May 27 Independence Day

Thursday, July 4 Labor Day Monday, September 2 Thanksgiving Holiday Thursday, November 28 Friday, November 29

Christmas Holiday Tuesday, December 24 Wednesday, December 25

CANADA

Good Friday Friday, March 29

Victoria Day Monday, May 20

Canada Day Monday, July 1 Civic Holiday

Monday, August 5

Labour Day Monday, September 2

Thanksgiving Monday, October 14

Holiday Closure Tuesday, December 24 – Friday, December 27



Alpine[®] Academy.

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Learn at your convenience.

If you have suggestions for a class or questions, please email us at <u>training@alpineitw.com</u>.



STITCHER® Gets a Makeover - pg. 10

Publishers Note:

Good Connections® is published by Alpine® for its customers, associates, builders, architects, building officials, and other professionals interested in the building components industry.

At Alpine, "Good Connections" refers to the quality products and services we offer as well as the connections we have with our customers and the components they provide to the building industry.

We appreciate story ideas, project photos, and other suggestions that you have to make this an even better publication. For more information, contact <u>marketing@alpineitw.com</u>.

 $\ensuremath{\textcircled{\sc 0}}$ 2024 Alpine, a division of ITW Building Components Group Inc.

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OBSERVATIONS



Matt Davis Vice President & General Manager

Matt Davis is the newly appointed Vice President & General Manager responsible for overseeing the Alpine® business since October 2023. Matt started his career with ITW in 2000 as a Co-op Engineer in the Technology Center and held various commercial as well as operational roles in multiple businesses, including VPGM of ITW Medical and VPGM of Commercial Construction North America.

First, I would like to express my sincerest gratitude to our partners and the Alpine Team who have welcomed me into the industry. I am truly honored and very much looking forward to this exciting new chapter with the component manufacturing industry. The construction industry has changed considerably over the last few decades, as has the critical role of component manufacturing.

This industry has overcome unique challenges in recent years: a global pandemic, as well as labor and supply chain shortages. With pent-up housing demand and fluctuating interest rates, we will continue to see increasing opportunity for offsite construction.

As the world and technology around us changes, it will be fascinating to see how the latest trends in automation, technology – and even Artificial Intelligence – affect manufacturing productivity. Alpine has a rich history of bringing innovative solutions to the market through a process we refer to as Customer Back Innovation. This process is devoted to partnering with our customers to deeply understand their business needs, challenges, and opportunities. This enables us to create value-added solutions that improve your business processes, productivity, and – ultimately – increase your bottom-line. Regardless of volatile market conditions, this will always remain a core value at Alpine[®].

Again, thank you for your continued partnership. Together, we'll continue to shape the future of component manufacturing and positively impact the broader construction industry.

Muth

UNDUSTRY NEWS

2024 Revised Housing Forecast | SBCA

Originally published by Builder Online in February 2024, experts are revising the housing forecast, indicating a gradual 3-5% growth in single family while the multifamily market will decline between 20-26%. LEARN MORE

February Housing Starts

According to Reuters, U.S. single-family starts surged 11.6% to a seasonally adjusted annual rate of 1.129 million units reaching the highest level in almost two years. LEARN MORE

NAHB IBS

NAHB International Builders' Show (IBS) was held February 27–29, 2024; attracted the largest attendance in 15 years with more than 76,000 builders, remodelers, developers, and other home building professionals. Design & Construction Week (DCW), the co-location of IBS and Kitchen & Bath Industry Show (KBIS) pulled 117,000 attendees. LEARN MORE

BCMC | FS 2024

Building Component Manufacturers Conference (BCMC) and Framer Summit (FS) 2024 will be held from Monday, October 7 through Friday, October 11 in Milwaukee, Wisconsin. The annual show includes a dynamic exhibit floor with live machinery demonstrations, peer-led educational opportunities, and networking opportunities. Attendee registration opens May 1. Visit Alpine to learn about our latest innovations designed for component manufacturers. LEARN MORE

eSHOP | PLANT MANAGEMENT SOFTWARE MADE EASY



Manage All Production Activity with One Platform

Manage roof truss, floor truss, and wall panel production activity all on one platform.

Intuitive Web-Based Manual Shop Stations

Access from any device with a browser, without the need to install the software on each station.

Seamless Automated Equipment Integration

Supports Alpine[®] & multiple third-party equipment. Save time, increase efficiency and accuracy.

NEW ORGANIZATIONAL APPOINTMENTS



Mitch Neu, District Sales Manager

Based out of Wisconsin, Mitch Neu has joined Alpine[®] as a District Sales Manager in the Upper-Midwest region and will be working with CMs in Wisconsin, Minnesota as well as North & South Dakota.



Loren Linnell, District Sales Manager

Based out of Ohio, Loren Linnell has joined Alpine as a District Sales Manager and will be working closely with CMs across Indiana, Michigan, Ohio, & Kentucky.



Johnathan Freeman, District Sales Manager

Based out of Texas, Johnathan Freeman has been promoted to District Sales Manager and will be working closely with CMs in Texas, Louisiana, Oklahoma, Colorado, & New Mexico.



Beau Larsen, Software Trainer

Beau Larsen has joined Alpine as a Trainer. In this role, he is responsible for educating designers on how to maximize the value of the Alpine software.



Troy Ellison, Software Trainer

Troy Ellison has joined Alpine as a Trainer. In this role, he is responsible for educating designers on how to maximize the value of the Alpine software.



John Billasano, Software Trainer

John Billasano has joined Alpine as a Trainer. In this role, he is responsible for educating designers on how to maximize the value of the Alpine software.



Laura Wiechert, Help Desk & Training Manager

Laura Wiechert has been promoted to Help Desk & Training Manager. She will be leading the Help Desk and Training teams to help customers maximize the value of Alpine[®] software as well as support.

Discover Your Potential with Alpine

We're proud to promote a collaborative, inclusive, and creative work culture. Learn how you can join our team: https://alpineitw.com/about-us/careers/

ALPINE FIRST AWARD

We are so proud to honor Brian Zengel, Equipment Tech Support Manager, with the 4th annual Alpine® First Award. We sincerely appreciate his exceptional support and dedication, while demonstrating an Alpine-first mentality by prioritizing the needs of the business over individual or functional goals.

Congratulations, Brian!



IntelliVIEW® SOFTWARE 24.01 (Available Spring of 2024)

New Load Areas Tool

STITCHER® Reimagined

A new user experience for a better, faster workflow to take designers from drawing review to 3D model like never before. A single, dynamic tool designed to apply truss loads within a region accurately and simultaneously, including point, line, and polygon area loads. (Version 24.01)

New Property Palette

Streamlined interface to display and modify object properties providing a centralized control, instant reflection of changes, and enhanced productivity. (Version 24.01)



IntelliSheets

Create custom spreadsheets and job lists. Introducing new editing capabilities and security features. (Version 22.02) Visibility Manager Control visibility of layout elements such as trusses, CAD elements, notes, and more with a click. (Version 23.02)



John Croll Director of Solutions Delivery

DELIVERING HIGH QUALITY DESIGN SERVICES TO CMS

Alpine[®] visits BEDC's Manila Campus



Left to right Rick Tilelli, John Croll, Ben Powles, and Michael Schwitter

Alpine and Building Engineering and Design Co. (BEDC) have entered into a strategic partnership to provide high-quality, cost-effective, and scalable design services to the component manufacturing industry. BEDC employs degreed civil engineers who must pass a rigorous training course in component design as well as Alpine software before working with customers' projects. The training course, developed in collaboration with Alpine's training department, ensures BEDC designers learn the wood construction industry and each customer's specifications. This enables the designers to deliver production-ready component designs efficiently and accurately. On a recent visit to BEDC's campus in Manila, the Philippines, Alpine's Director of Solutions Delivery, John Croll, shared best-practices with the BEDC training staff. "Their training regimen is an organized, 10-week course intended to pass only the most qualified potential designers. Each week builds on the last to orient the BEDC designer to U.S. construction practices, how to read plans, how to frame roofs, floors, and walls, and, more importantly, how to optimize trusses to save material costs. The BEDC team has developed an impressive level of detail in their approach, including home-grown tests to ensure comprehension. They are investing heavily in this area which allows their designers to quickly adapt to specific customer needs once they are assigned to an account."



BEDC has a fast growing team to help support Alpine customers' growth.

LEVERAGING TECHNOLOGY

During the visit, Alpine also witnessed BEDC's cutting-edge Al technology. Developed in their New Zealand innovation hub, it rapidly accelerates their design process. After the plan and relevant job information are uploaded into Rome, BEDC's online portal, their patented, Al solution gets to work.

Alpine's Director of Software Engineering, Rick Tilelli, explains, "BEDC's AI model, with human-in-the-loop (HITL) support, puts their designers at a distinct advantage. The system interprets the 2D plans and customer-entered job details and instructions to fast track the building envelope process. If the AI is uncertain of any elements of the job, it presents questions for an experienced designer to answer via an HITL interface. This process is short and eliminates many errors associated with other AI models, which are forced to guess details of the job."

Once the AI is finished, designers are able to start with an accurate building envelope to return component designs in less time. BEDC's CEO, Ben Powles, adds some context. "We have a team of highly specialized AI developers who are working to streamline the plan intake process. The model learns from each job that goes through, taking input from the human designer to make better judgments on this next plan. The focus here is to make the design process more efficient using technology so we can provide a better service to our customers."

SUPPORTING CUSTOMER GROWTH

BEDC has scaled rapidly to help support Alpine customers' growth. They have a fast growing team of over 130 trained designers and demonstrated an impressive recruiting operation to unlock future expansion. To complement their capability, BEDC also has a team of experienced U.S.-based designers who serve as the first point of contact for customers.

Michael Schwitter, Director of Sales at Alpine, explains the significance. "It was really impressive to see well over a hundred Alpine designers in one room. BEDC has taken on these resources to offer flexibility to our customers. It's now easier, faster, and more reliable to add design capacity through BEDC. We want our customers to feel confident taking on more work, and BEDC helps to make that a reality."

Please contact your Alpine[®] sales representative for more information about how this partnership with BEDC can benefit your business.

IntelliVIEW Suite Manage. Design. Build.

The industry's most powerful integrated component design, engineering, and management software for steel and wood-framed structures.

iCommand

Manage projects, customers, materials, pricing & inventory

iModel Design truss layout & profiles

iDesign

Optimize material usage & engineer trusses

iPanel

Design wall layouts, panelize, bundle, break & stack

eShop

Maximize crew productivity & improve manufacturing efficiency

The IntelliVIEW Suite is a fully integrated software solution for the layout and design of a building's rough framing elements—including roof and floor trusses, wall panels, solid sawn, EWP, sheathing and various ancillaries.

The IntelliVIEW Suite provides the industry's most complete analysis of the design, cost information and bill of materials—promoting increased profits by reducing plate and lumber use.

Ask those who know. They'll tell you about the people at Alpine who make a difference.



BUILD MORE. alpineITW.com | 800.521.9790



Rudolph Garza, Jr. Product Owner

STITCHER GETS A MAKEOVER

Imagine a looming deadline, a complicated 2D, multi-family floor plan. It will take days to get accurate measurements, manually. STITCHER[®] streamlines the process by capturing walls, openings, and intricate details with precision, transforming a 2D architectural drawing into a 3D model in a fraction of the time – saving 30% of overall design time.



Figure 1. Tools are now organized by tab and a progress bar appears at the bottom.

STITCHER is an innovative software created to simplify complex design processes. In November, an updated version (2.0.8677) launched, improving STITCHER's user interface and experience (UI/UX). These updates, based on customer feedback, streamline the designer workflow with clean, easyto-find tools and features, while improving the onboarding experience for new designers.

STITCHER REIMAGINED

STITCHER's new interface provides designers with a step-by-step workflow to help quickly identify the process, as well as next steps (see Figure 1). The software's tools and other valuable information are organized and categorized in color-coded tabs for easy identification (see Figure 2). Selecting levels and



Figure 2. Some tools are now color-coded, matching the capture depictions.

identifying critical information, like plumbing and electrical locations, has been added to user-friendly drop-down menus.

These UI/UX enhancements improve the STITCHER workflow for all users, while also accelerating the learning curve for new designers. The new interface

provides constant visibility into their progress within STITCHER, allowing designers to navigate with confidence. Seasoned designers will also be able to leverage STITCHER to its full potential. These enhancements empower designers to streamline their workflow and maximize designer efficiency. It's as easy as 1–2–3.

Learn more about STITCHER's automatic selection and measurement tools that help to analyze the varying styles of a builder's plan, identify the building envelope, and automatically fill in the walls, openings and fixtures.



Depending on the type of plan, STITCHER[®] can save up to 95% of the plan input time—with an average savings of 75%—leading to more accurate bids and finished layouts.

OPTIMIZING TRUSS DESIGN

AUTHORS
Oran Thornton | Alpine® TrusSteel Designer & Drafter
William Babich | Engineering Manager

Establishing a truss design process that progresses seamlessly from start to finish serves as a critical backbone for efficiency and ensures essential quality control measures. While individual processes might vary from designer to designer, here is a sample step-by-step process.

RESIST THE URGE

The quote has been accepted and it's time to produce a final truss design. Before digging into the plans and randomly adding walls, planes, and trusses, carefully consider the methods used to produce truss designs. Resist the urge to jump into the program too early. A thorough review of the job plans/specifications is crucial.

Here are some simple categories and notes for each phase.

SCOPE OF WORK

Review the scope of work¹ compared to the quote to gain an understanding of all the areas requiring trusses, blocking trusses, bent metal, outlooker framing, truss bracing design, truss-to-bearing connection design, etc. Carefully assessing the quote can provide clarity and serve as a double-check for items missed in the quoting process. It can also help identify any discrepancies during the final design process.

PLAN REVIEW / RFI QUESTIONS

Start a complete plan review. This includes examining the architectural, structural, mechanical, electrical, kitchen, fire safety, or any other section of the plans that may impact truss design. In reviewing these plans, note any missing information so issues can be addressed early in the design process.

The building's general geometry can be found in both the architectural and structural plans. Information regarding truss loading typically resides in the structural plans, with some obscure loading requirements in the mechanicals, electricals, kitchen, or fire safety plans. Truss loading information typically exists in the structural plan general notes, roof framing layouts, building sections, and individual details. Identifying discrepancies between sections of the various plans before designing begins saves time and prevents costly mistakes.

Since building plans contain so many pages, it is important to spend time reviewing the plans and determining the proper course of action. This thorough review always pays off.



Before digging into the plans and randomly adding walls, planes, and trusses, carefully consider the methods used to produce truss designs.

Here are some examples to look for that can impact the truss design. Every job is different and will have other items that can affect the trusses, so be on the lookout for anything that could be required of the trusses.

- 1. The applicable Building Code and any referenced standards
- 2. Standard job loading information (e.g., live loads, dead loads, wind loads, snow loads, seismic loads, blast loads)
- 3. Truss heel height
- 4. Overhang / cantilever length
- 5. Mechanical unit size, or weight
- 6. Drag truss loads

- 7. Fire sprinklers
- 8. Fall restraint loads

Also, review the Job Specification before starting truss design. Find and review the roof truss section thoroughly. Specifically, identify and review:

- 1. Minimum gauge or grade requirements
- 2. Galvanization requirements
- 3. Truss deflection requirements
- 4. Referenced standards

During the plan/specification review, identify any questions that require answers. Develop the initial Request for Information (RFI). Securing as much information as

Rechecking the design – and having a coworker check it too – can eliminate mistakes before they reach the customer, the truss shop, or the jobsite. Following a good design process and being meticulous during the initial review pays big dividends.

early as possible allows the job to proceed more quickly. One of several professionals on the building design team will typically provide the RFI responses.

iMODEL – TRUSS LAYOUT

After reviewing and receiving answers from the RFI, begin the design work.

Job Settings: Input all the standard job loading, wind loads, snow loads, and establish the rest of the job settings.

Gridlines: Most projects have gridlines. Inputting these first makes the wall input easier. Compare the architectural and structural gridlines to ensure they match. If they don't, add these questions to the RFI.

Bearing Input: Add walls and beams to build the model. Carefully compare the architectural and structural plans to ensure the wall input is correct, including wall location, height, and thickness.

Roof / Ceiling Plane Input: Add all the roof planes and ceiling planes to the model to build the roof. If any questions arise that were not asked in the initial RFI, ask these in a separate RFI.

Truss Input: Once bearings and planes are complete, add trusses to the layout. Vigilantly follow the plans to add trusses where specified.

Miscellaneous: Input any other layout information needed, such as truss labels, mechanical ducts or HVAC units, layout notes, fire sprinkler locations, fall arrest locations, and dimensions.

iDESIGN – DESIGNING TRUSSES

Once truss layout is complete, start designing the trusses. In this phase, account for anything that may impact the truss design like HVAC units, duct work, sprinkler pipes, additional loads, or other factors that could affect the truss geometry or design.

REVIEW THE DESIGN

Rechecking the design – and having a coworker check it too – can eliminate mistakes before they reach the customer, the truss shop, or the jobsite. Thoroughly review the design, including all layout features such as bearings, planes, trusses, dimensions, truss quantities, or other items that might impact the job.

Following this simple process can help the truss design phase proceed smoothly and efficiently. Starting with a solid understanding of what is needed and capturing the right information plays a key role in accurate truss design. Following a good design process and being meticulous during the initial review pays big dividends.

MANAGING LUMBER IN iSOURCE

AUTHOR

Laura Wiechert | Help Desk & Training Manager

iSource is designed to enable seamless material inventory management, and it can play a crucial role in a plant's daily operation. While adding or modifying material in iSource is simple, it is an important process worth mastering, here is a step-by-step look.

- To add material to iSource (from iCommand[®]) select Administration > Materials > Inventories.
- 2. Click on the Lumber tab.
- Select the inventory to add material by clicking the toggle arrow located at the right end of inventory field > select the Lumber inventory name from drop-down list.
- 4. To add lumber, from the bottom of the iSource window, select Manage to access the Master Lumber List.
- 5. Browse and select the Board Properties (Species, Grade, Size, or Option).
- 6. Use the Define option to add sizes.
- 7. Enter desired length or range.
- Select Generate Part Number and add Range.
 The lumber will be added to the Master Lumber List.
- Gray text indicates added material, while material appearing in black text has been added to the Master Lumber List but not in the selected Inventory.
- 10. To add material to the selected inventory ensure

the correct category is selected at the bottom of the screen.

- Click on each lumber item to be added > click Apply. Each item should now be gray. Click OK to exit the Master Lumber List.
- The added lumber is now in inventory.
 Complete setup by finding the New Material on the list and select it.
- 13. Enter the Cost of lumber.
- 14. Ensure it is In Stock.
- 15. Select Usage(s).
- 16. If applicable, setup Column or Quantity Pricing.
- 17. Go into Production Groups > select the order in which the material should be used.
- Re-launch iModel for the newly added material. Each time changes are made in iSource Inventories, iModel must be restarted to reflect changes.

Tip: Above the columns of the Materials or Products section of each tab, quickly organize lumber by dragging and dropping column headers.

For more information, visit Help Documentation > iS > Inventories Help > Lumber.



Need Help?

Solve a problem, read expert articles, watch online tutorials and access top-notch support when you need it. At Alpine[®], we provide our customers with the ultimate support experience. Our passionate Help Desk team is ready to assist every step of the way to ensure you always get the most out of our software.









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