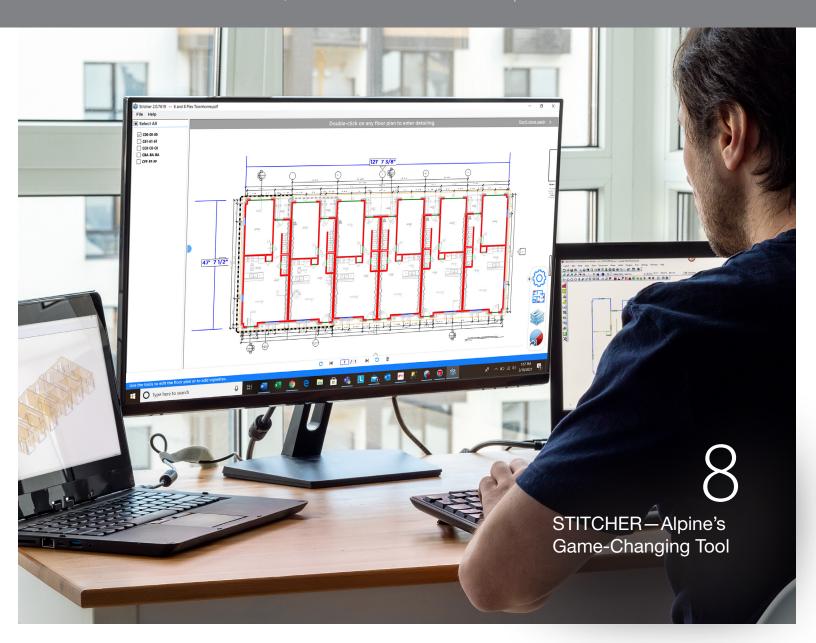
GOOD CONNECTIONS[®]

FALL 2021



TCM Enterprises – Peaking at the Right Time 6

IntelliVIEW Software – Version 21.02 New Features





2021 UPCOMING U.S. & CANADA HOLIDAY OFFICE CLOSURES

U.S.

Thanksgiving Thursday, November 25 & Friday, November 26

Christmas Friday, December 24

New Year's Day Friday, December 31

CANADA

Thanksgiving Monday, October 11

Christmas Friday, December 24

Boxing Day Monday, December 27 Floater Day Tuesday, December 28

New Year's Day Monday, January 3, 2022

ALPINE ACADEMY WEBINARS

- STITCHER Best Practices | October 1, 2021
- IntelliVIEW Suite: New Features | October 22, 2021
- IntelliVIEW Suite: Component Design Solutions | November 19, 2021
- Job Designer | December 10, 2021



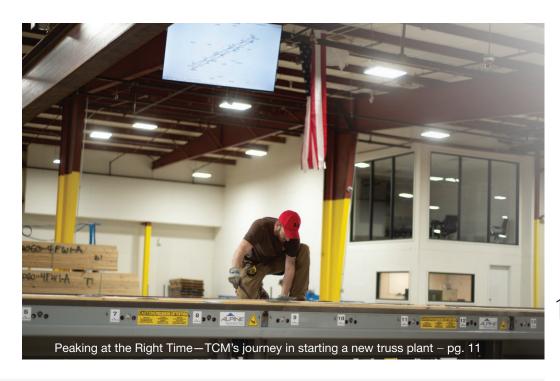
Register or log in here

Publishers Note:

All software training webinars are held 11 AM - 12 PM (EST)

(Sessions and time are subject to change)

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



Good Connections® is published by Alpine® for its customers, associates, builders, architects, building officials,

At Alpine, "Good Connections" refers to the quality products and services we offer as well as the connections

We appreciate story ideas, project photos, and other suggestions that you have to make this an even better publication.

and other professionals interested in the building components industry.

For more information, contact <u>marketing@alpineitw.com</u>. ©2021 Alpine, a division of ITW Building Components Group Inc.

we have with our customers and the components they provide to the building industry.

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OBSERVATIONS



Kevin Kraft Vice President & General Manager Kevin Kraft is the Vice President and General Manager responsible for overseeing the Alpine[®] business for ITW. Previously he was the Engineering Director for ITW's Residential Construction Design Center in Lake Forest, Illinois. He led the research and development of innovative fastener and connector systems for the wood-to-wood construction market. He has also served as Research & Development Manager at the ITW Innovation Center in Glenview, Illinois.

BUILDING PARTNERSHIPS

The construction industry is booming in 2021, with huge a demand for new homes. The demand has been pressurized by the shortage of building materials. The past year has shown us the significance of not only a reliable supply chain, but also vendors who act as partners to support the industry. Building partnerships has always been the core of our operating philosophy. We don't want to just sell you plates; we want to grow your business with you. This year has been nothing different for Alpine. From our operators on the manufacturing floor to your local sales representative, we have worked hard to ensure we can provide the tools and connector plates to our partners to help support their growth in this 'hot' market and beyond. As the building community continues to find ways to meet the challenges of today's market, so does Alpine. Flipping the pages of a calendar is not going to lessen any of these challenges. As we work to close out 2021 and look forward to 2022, we need to continue to provide tools while creating a competitive advantage for our customers to allow them to be successful in overcoming whatever obstacles the new year presents.

Beyond delivering plates to build trusses, we need to continue to innovate impactful solutions for our partners and provide them with an advantage to lead in their markets. We are excited to show you our latest solutions at BCMC 2021. Our team will be ready to greet you at the CHI Health Center in Omaha, on October 6th and 7th. Stop by and learn about our new solutions to help boost your productivity and profits. You will also have the opportunity to request a private demonstration with our experts for an in-depth, personalized viewing of our renowned software. After over a year of virtual interactions, we are looking forward to meeting everyone in person! Alpine has always worked hard to solve our customers' current and future needs. Solving our customers' most significant challenges is part of our business model, and BCMC 2021 is a great opportunity to work together to develop optimal solutions.

We understand COVID-19 is still a part of the conversation, and our employee and customer safety will continue to be our utmost priority. By implementing strong safety procedures, we will continue to ensure the well-being of our employees and customers at the show. All of our Alpine[®] locations have followed the highest standard of safety to protect our team, and we will continue doing so. Despite an unpredictable year, we appreciate our employees' strong commitment, resilience, and desire to serve our customers. Their unwavering efforts have allowed us to support our customers through a global pandemic and significant housing boom.

We are all looking forward to seeing all of you at BCMC 2021, and continuing to build partnerships.

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(¹ INDUSTRY NEWS

BCMC 2021 | Booth 100

Building Component Manufacturers Conference will be held from Tuesday, October 5th to Friday, October 8th at the CHI Health Center in Omaha, NE. Visit Alpine[®] at booth 100 to learn about our latest innovations designed for component manufacturers. **LEARN MORE**

Thomas H. Lee Partners Acquires House of Design

Thomas H. Lee Partners, L.P. (THL), a premier private equity firm investing in growth companies, announced that it has acquired a majority interest in House of Design LLC (HoD), a leading provider of robotic automation systems and software for the residential construction market. THL's investment will strengthen HoD's existing capabilities and provide capital and resources for future growth investments. HoD's co-founders will hold minority positions in the company. LEARN MORE

INTEX Expo 2021 Cancelled

INTEX Expo 21, scheduled for October 17-20, 2021 in New Orleans, is cancelled due to concerns related to COVID-19 and Hurricane Ida. LEARN MORE

August 2021 Housing Starts

U.S. homebuilding increased more than expected in August, boosted by an easing in lumber prices. Housing starts advanced 3.9% to a seasonally adjusted annual rate of 1.615 million units. LEARNMORE

NAHB IBS 2022 | Booth W6071

Visit Alpine[®] at booth W6071 for the upcoming International Builder's Show 2022 by the National Association of Home Builder's, from February 8th to 10th at the Orange County Convention Center in Orlando, Florida. LEARN MORE



THE BCMC PREVIEW ALPINE'S LATEST INTELLIVIEW SUITE RELEASE, INNOVATIONS, & PRODUCTS

The Building Component Manufacturers Conference will be kicking-off in Omaha on October 5, and we are pleased to be exhibiting in booth 100. BCMC offers component manufacturers (CMs) the platform to see the latest software and equipment demonstrations, network with industry experts and explore educational opportunities. We will be featuring innovative products to help make CMs more competitive and profitable.

"We're so excited to attend BCMC this year and collaborate with our industry partners. We will be showcasing the latest tools and enhancements from the upcoming IntelliVIEW Suite Version 21.02. The new version features updates and tools that help maximize designer efficiency and overall productivity," said Rick Tilelli, Director of Software Development at Alpine[®].

INTELLIVIEW SUITE VERSION 21.02

Available October 8, the 21.02 release provides new ways to maximize productivity while improving overall user experience. It features major updates with a new truss collision tool, an enhanced 3D Viewer, automatic legend notes with customization for unique heights, quick, accurate definition of 3D room openings, a new truss properties manager and more. Designers will benefit from the ease and accuracy of the latest tools.

2D TO 3D SEAMLESSLY

The latest enhancements to STITCHER[®] provide support for a wider range of drawing conditions, saving even more building input time while increasing designer accuracy.



Go from 2D to 3D seamlessly with STITCHER

Version 21.02 HIGHLIGHTS

IntelliVIEW[®] Suite

CAD Tools

Improved modification, labeling, and dimensional tools.

Walls & Bearing Legends Automatic legend note with customization for unique bearing heights.

Enhanced 3D Viewer

Improved graphics, performance, and ability to share a 3D Model with customers on the Alpine Portal.

Truss Collision Tool

Automatically identifies duplication or overlapping trusses in layouts.

Simplified Truss Editor

Save CAD markups to your truss files from iModel.

iModel 3D Room Openings

Quick and accurate definition of 3D room openings (e.g., attic rooms and forced air units).

Floor Truss Bearings

Improved mid-height bearing design with ribbon notch.

Truss Properties Manager

Find, review, and compare trusses in layouts.



Take cutting to the next level with the ALS 4.0

PANEL CREATION SIMPLIFIED

Design wall layouts, panelize, break, stack and build with minimal manual effort using iPanel. Version 21.02 includes updates to Power Edit, Sheathing Tools, and a new, easy-to-use padding tool to help create a gap between interconnected walls while maintaining the junction's integrity.

IMPROVE SHOP PRODUCTIVITY

eShop Version 7.02, released in August, provides updates that improves the integration with third party equipment to collect more accurate data with less disruption to workflow. eShop Web Stations, a popular feature, allows crews to use Table Display to follow any selected Assembly Station (including Speedset) on any device with a chrome browser. Simplify production by allowing crews to set up alternative viewing locations that follow the master view of the truss being assembled.

ALPINE EQUIPMENT

We are an industry leader in computer-controlled truss cutting and assembly systems. "Our equipment is engineered to guarantee CMs high performance, qualitydriven results," stated Vennor Hackshaw, Business Unit Manager at Alpine. "As the industry shifts to automation to improve production capacity and combat labor shortages, we will continue to work with CMs to enhance our technology. This year we'll feature the Alpine Linear Saw and AutoSet Plus Tables at BCMC, with live demos to showcase the agility and latest automation. The reliability and performance presented in the ALS will help bring truss cutting to the next level."

AUTOSET PLUS TABLE

The AutoSet Plus is the latest in truss table automation improving production time. With set up in less than 25 seconds, this computer-controlled jigging system is engineered to be efficient and accurate. The automated steel pucks provide workers the ability to keep a consistent pace throughout the day, with higher accuracy and reduced employee fatigue.

ALPINE LINEAR SAW (ALS) 4.0

The ALS takes cutting to the next level reducing labor, increasing production and the bottom line. No other saw in the market has the same impact on modern truss production. Designed for production efficiency, the ALS 4.0 requires only one sawyer for operation, and features an optional automated infeed system, beveling capability and wall panel marking. See it in action! We will provide several scheduled demonstrations.

VISIT ALPINE® AT BCMC

Come see us in booth 100 or contact info@alpineitw.com for a private software demonstration.

Improve Plant Production. Maximize Labor. Automate Your Truss Manufacturing.

Drive your truss plant into a sustainable future. House of Design, an ABB Robotics integration company, and Alpine, an ITW Company, have teamed together to bring you the latest in robotic solutions. Solutions that increase your plant's production throughput while helping solve labor concerns and improve employee safety. Contact your local Alpine Sales Representative to learn more.

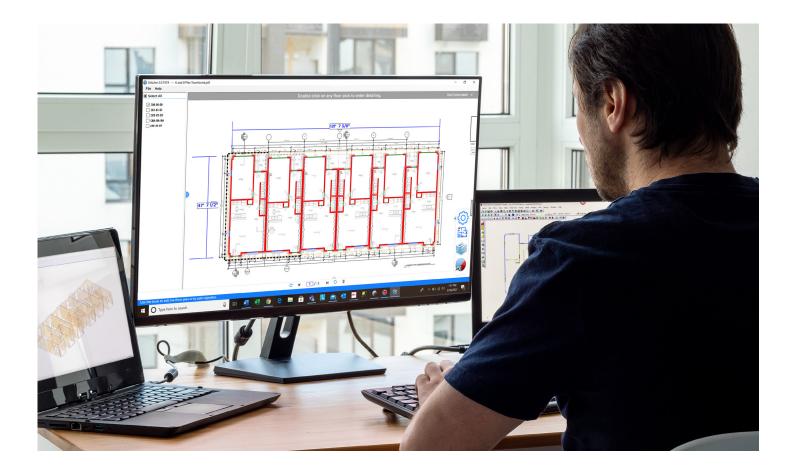
Automated Roof & Floor Truss Systems | Roof Member Preplate | Chord Preplate | Connector Plate Picker | Splicing Station



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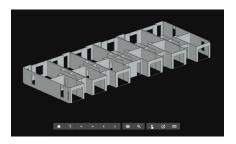
UNITED SOUTHWEST COMPONENTS IS USING STITCHER TO WIN BIGGER JOBS IN LESS TIME

How do you get a new component manufacturing business up and running at a competitive speed as efficiently and quickly as possible, on the eve of a global pandemic, when you're short on start-up capital? The two-part answer is simple: Alpine[®] and STITCHER[®].



ALIGNING WITH EXPERTS

Lance Keller knows the construction industry. He has been in it all his life. So when he decided to start a building component business from the ground up in early 2020, he understood the necessity, value, and benefits of aligning with experts. First, he partnered with Jeff Popour, who brought an in-depth understanding of component design and manufacturing, and together they formed a partnership between United Southwest Components and Alpine, which introduced them to STITCHER. Within months they were up and running at a rapid pace.



Go from 2D to 3D seamlessly.

"The Alpine reputation and track record was impressive. They have delivered. STITCHER is a super powerful tool, a real game-changer."

- Lance Keller, Owner, United Southwest Components

KEY SUCCESS POINTS

With STITCHER, Alpine's unique design software technology, United Southwest found that projects which would have taken 3-4 days to complete were accomplished within just a few hours. STITCHER is easy to use, allowing even inexperienced users to become highly productive in a very short time. Before long, United Southwest was getting designs out in advance of deadlines.

Alpine worked closely with Lance and Jeff, helping them channel start-up resources into performance by being strategic with overhead. Because Alpine's systems integrate with equipment from third-party manufacturers, United Southwest was able to bring used equipment online in a way that produced with seamless efficiency. This proved to be critical, as the other potential resource was only able to integrate with its own equipment.

"STITCHER has changed the way we design. We're much more accurate and more efficient, producing bids that reflect buildings in their entirety. The larger the project, the more time we save."

- Jeff Popour, Partner/GM, United Southwest Components

IMPACT

Given the accuracy and efficiency of STITCHER and its ability to produce bids that reflect each building's complete design, United Southwest was quickly able to compete and win large jobs with multi-story buildings, even when competing against much larger companies. In fact, as Lance Keller points out, "Plants much larger than ours are not capable of doing as much business as we are."

Alpine[®] helped United Southwest Components gain the ability to: 1) more accurately bid large jobs, 2) bring inexperienced designers up to speed so they can be productive quickly, and 3) control start-up overhead.

About STITCHER

STITCHER takes 2D plans to 3D models by making processes like capturing walls and openings faster. The automatic selection and measurement tools 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 your 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/ approved layouts.

IntelliVIEW 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 and pricing

iModel

Design truss layouts and profiles

 iDesign
Optimize material usage and engineer trusses

iPanel

Design wall layouts, panelize, bundle, break and stack

eShop

Manage component production, labor and efficiencies

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, construction hardware, 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.

BUSINESS & DESIGN SOFTWARE | CONNECTOR PLATES EQUIPMENT | ENGINEERING SERVICES & SUPPORT



Building Partnerships

Call 800-521-9790 or visit www.alpineitw.com for complete information

PEAKING AT THE RIGHT TIME—TCM'S JOURNEY IN STARTING A NEW TRUSS PLANT IS FULL OF INSIGHT

Operating a successful component manufacturing operation in today's build environment takes forethought, tenacity, and flat-out gritty determination. Imagine starting a truss plant from scratch, after what your own company has been through over the past six months. Whatever you can imagine, you're probably just scratching the surface of what the leadership behind Summit Structural Systems has navigated as they got their new operation in Lincoln, Arkansas, up and running earlier this year.

"Had we known what was going to happen with the lumber market this year, we may have changed our pace just a bit," chuckles LD Harris, the driving force behind Summit's creation. "However, with just a few months under our belt I am very excited about what we have been able to accomplish and where we are headed."

Their journey to start a brand-new operation is instructive to everyone in the industry in that it provides a unique perspective on what it takes to enter the industry, what needs to be considered, and most importantly, who you can turn to for help.

UNDERSTAND THE NEED

TCM Enterprises is one of the region's fastest-growing commercial metal and wood framing contractors. Their turnkey framing operation has had a growing portfolio of work and was buying more and more wood roof and floor trusses from multiple component manufacturers (CMs) for their projects.

"As we looked at the trend lines and what we were going to need in the future, we decided we wanted to control our own destiny when it came to the wood framing," says LD Harris, Vice President of Operations. "We saw that



not only will we need more wood roof and floor trusses, but there will be plenty of new business in our region to support the additional capacity Summit brings."

In other words, TCM got into the game not because they didn't like the product they were getting from other CMs, but because they knew the long lead times they were already dealing with were only going to get worse. Further, LD and the rest of the TCM leadership had learned from experience there was a lot to gain from converting traditionally stick-framed roofs and walls in their market to component framing. "When it comes to the wood framing, our turnkey operations can do a lot more volume if everything is component framing," says LD. "The material and cycle time savings allow us to take on even more projects."

Certainly, bringing a large book of business to a start-up manufacturing operation eliminates one of the major challenges any business faces. Another big challenge is getting into a field you know little about. "We had certainly worked with a lot of manufacturers, and we had certainly come to appreciate what we liked most about the roof and floor trusses, but we knew we had a lot to learn about how to actually fabricate them ourselves," says LD.

GATHER ALL THE DATA

Neither LD, nor TCM's founder Jon Tuggle, had any background in the truss industry. They are contractors by trade. "So we did some analysis," says LD. "A lot of analysis. Both on what we could learn on the type and volume of work that was coming to the area through national builders and other developers, and then we learned as much as we could about how different component manufacturers (CMs) provide product for that type of work."

"When it comes to the wood framing, our turnkey operations can do a lot more volume if everything is component framing. The material and cycle time savings allow us to take on even more projects."

Early in this process, LD met Dustin Johnson, district sales manager for Alpine[®], an ITW Company. "I was excited about what LD and his crew wanted to accomplish," says Dustin. "They didn't want to take business from anyone,



they wanted to convert projects and grow capacity for the future growth they knew was going to happen. I wanted to help them in any way I could."

Dustin started by connecting LD with several CMs. "There's no better way to learn the business than to walk through the operations of others and ask them a million questions," says Dustin. So LD and his team went on a whirlwind tour of several CMs across the country. While walking through the facilities, LD peppered everyone with questions ranging from material throughput to best practices for handling, storage, and transportation.

"Between all the tours and Dustin's expertise, I learned a lot about the industry and got answers to important questions I wouldn't have necessarily known to ask," says LD. The plant tour that sealed the deal in LD's mind was with Donnie and Bo Powers at Panel Truss in Henderson, Texas. "They were so open and helpful, and hearing all their lessons learned on equipment solidified a lot of thoughts on our initial approach," says LD.

After taking a hard look at several operations, LD developed a set of pro forma financials, or forecasts, to determine the size of the operation they should build. "Dustin was an incredible resource, he was incredibly helpful in figuring out the ROIs on all the investments we had to make."

MAKE THE LEAP

One of the main things LD focused on in all his tours was figuring out how much physical space and production equipment they would need to produce the volume they had in mind. "We were looking in several locations throughout the region and then a building just fell in our laps," says LD. The former Sunny Fresh egg plant in Lincoln, Arkansas, became available at the right price. "The building was in rough shape, but it fit our needs and we were able to move in and start renovating it immediately," says LD. In addition, TCM was able to purchase ten additional acres of land right across the street to enable future expansion.

The TCM team quickly set to work renovating the 40,000

"There's no better way to learn the business than to walk through the operations of others and ask them a million questions."

> — Dustin Johnson District Sales Manager, Alpine



TCM's crew completed a six-month rehab in two months, and equipment was installed even before the power was turned on.

square-foot facility, pulling out all the stops to finish what should have been a six-month rehab project in a little over two months. The biggest hold-up on the whole renovation was installation of new electricity infrastructure. "We were actually able to install all the machinery without any power in the building," says LD. "Everyone at Alpine provided excellent customer service, and in the end the lack of electricity only set us back a couple of days. It was amazing."

Summit's facility is initially set up to produce roof and floor trusses, but LD says the company is committed to producing wall panels too, likely adding that product line in the not-too-distant future. "Beyond TCM's needs, we've had



Summit utilizes the latest technology to facilitate the most efficient and accurate production possible.

several of our customers ask us to make wall panels, so we know the need is there," says LD. "We know that wall panels are tough to do right, so we're going to get a few quarters of experience under our belt and ease into it slowly."

BUILD THE TEAM

The other big challenge was assembling a top-tier team to get Summit off the ground and be successful out of the gate. "Our initial contacts, who helped us understand component manufacturing, were instrumental in connecting us with people throughout the industry and help us identify experienced people we could bring in right away," says LD. To that end, Summit boasts on their website they already have over 100 years of truss industry experience employed to help customers, whether it's for a commercial, single-family, multi-family, or agricultural building.

All of that experience was put to the test early as equipment was installed the first week of January 2021, and the first trusses were loaded onto new roll-off trailers bound for a jobsite by the fourth week of January. Then the lumber and steel markets erupted, material became scarce, and all those early forecasts suddenly looked too optimistic. "I'm proud of how this team has handled all that adversity," says LD. "Five months in and we are really surging ahead with a bright future ahead."

BOTTOM LINE

Whether you're looking to launch a whole new operation like Summit, or simply looking to expand your current operations, TCM's journey is instructive. First, gather as much information about future needs as you possibly can. Next, find a partner like Alpine[®] who can connect you with other component manufacturers to learn from. Finally, make sure you're assembling the right team to get the most out of the capacity you bring on line.

This article was originally published in SBCA's July/August 2021 issue.

TIME FOR TIMBER TRUSSES

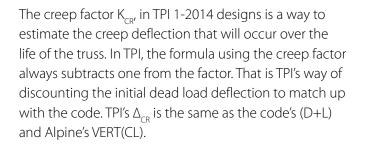


Garold Heal Chief Engineer

Timber naturally has high short-term strength and deforms slowly under load. In truss design, these characteristics are taken advantage of by using load duration and creep factors.

The Load Duration Factor, C_d , is an allowed increase in lumber strength ranging from 0.9 for load cases with dead load to 2.0 for impact loads. Typically, roofs are designed for snow load using a Load Duration Factor of 1.15 or less, and for wind loads using 1.6.

When timber is subjected to loads over a long period of time, it breaks down slowly, causing increasing deflection and loss of strength. The increase in deflection over time in timber structures is called creep.







Creep can be illustrated in a simple fence. New (left), and after some time has passed (right).

WHY IS CREEP IMPORTANT?

Everything deflects under load, and if building components deflect too much it can result in drywall cracks and sticking windows. Building codes put limits on acceptable deflection, based on the ratio of span to deflection. Because this is a ratio, a larger number means less deflection. Design limits are given for deflection from live or snow loads, and for deflection of components while in service. K_{CR} for most designs is equal to 2, which means that the truss's long-term creep deflection is expected to be approximately the same as its short-term deflection. Truss designs using green lumber installed prior to drying to 19% moisture content, use $K_{CR} = 3$, since they are expected to deflect twice as much over time as the initial deflection. If, however, the trusses are dried out before they are installed, the factor of 2 is permitted.

HOW DO TRUSSES REALLY HOLD UP OVER TIME?

Quite well! Wood trusses can last a long time when kept out of harmful environmental conditions. They have high short-term strength and rigidity, which we take advantage of by using the load duration factor. There is predictable deflection under longer term loads, so we can design for creep. Trusses designed using load duration and creep factors are part of safe and economical building systems. With over 60 years of successful use, trusses have proven their ability to safely last decades.



Walls & Bearing Legends

Automatic legend note includes unique bearing heights with improved customization and accuracy.

Enhanced 3D Viewer

Publish a modernized 3D model in iModel or share with customers on the Alpine Portal.

CAD Tools

Improved modification, labeling, and dimensional tools.

Truss Collision Tool

Automatically identifies duplication or overlapping trusses in layouts.

Simplified Truss Editor Save CAD markups to your truss files from iModel.



Truss Properties Manager Find, review, and compare trusses

in layouts.

Floor Truss Bearings Improved mid-height bearing design with ribbon notch.



COMING SOON.

New Alpine[®] Academy website. Learn at your convenience.

iModel 3D Room Openings

Efficient and accurate definition of 3D room openings.