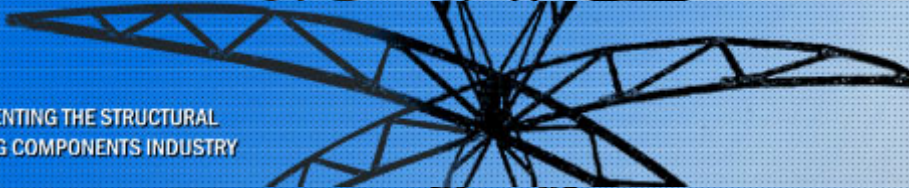




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Component Industry Timeline

From a South Florida Invention to a Worldwide Industry!

If you have a contribution you would like to make to this compilation, please send it to timeline@sbcindustry.com. Submissions will be subject to approval and may be edited for grammar, length and clarity.

1560—1580:

- Italian architect Ande Palladio developed three forms of the basic truss element—the rigid triangle. These forms are believed to be the earliest examples of trusses used scientifically.

1840:

- The Howe truss won a United States patent, and following Palladio's work, became the earliest form of a simple truss created for long-span bridge construction.

1844:

- Thomas W. Caleb Pratt patented another combination wood and iron bridge truss. This truss differed from the Howe with diagonal webs of iron (for tension) and verticals made of wood.

1952:

- A. Carrol Sanford invented the metal truss plate with teeth called the Gri-P-Late.

1955:

- Sanford's Gri-P-Late thrilled Miami building officials, and he was issued the first Engineered Bulletin for his product by the



Jobsite Bracing and Safety



SBC Magazine





[2006 BCMC Show](#)

Architectural Standards Division of the Federal Housing Administration on July 13.

- [J. Calvin Jureit](#), founder of Gang-Nail Systems Inc. (now MiTek Industries), created the Gang-Nail plate, the first metal connector plate for trusses that did not need supplemental nail fastening. The plates were pressed into the lumber using a concrete vertical hydraulic press and steel table precision jigs.

1958:

- Klaisler Manufacturing opened its doors as one of the first truss roller manufacturers.

1959:

- CLT Continuous Lumber Tester invented at Potlatch Forests, Lewiston, ID. Patented by Harold Keller.

1960:

- The Truss Plate Institute (TPI) was formed. Cofounder [J. Calvin Jureit](#) served as president for the first two terms. Ed Callahan, P. E. of Gang-Nail was the first full-time managing director of TPI, then located in Washington, D.C.
- After formulation began in 1959, TPI-60, "Design Specification for Light Metal Plate Connected Timber Trusses," was published by TPI.

1961:

- Jack Schmitt founded Truswal Systems Corp.
- The Component Manufacturers Council (CMC) was established as a committee of TPI. Jack Littfin served as the first CMC president.

1962-65:

- Bill Juriel expanded the plated truss to Canada, Europe, UK, South Africa, Australia and New Zealand.

1964:

- The roller gantry was invented by Jim Pool, an engineer who worked for Carrol Sanford. With the help of Dick Stoddard, a Canadian fabricator, they perfected this roller gantry in 1964.

1965:

- Transverse vibration E-Computer invented at Washington State University and patented by James D. Logan and Roy F. Pellerin.

1966:

- Alpine Engineered Products was founded by William McAlpine and Charles Harnden in October of this year.

Late 1960s & Early 1970s:

- In 1970 the first total truss software package-Auto Truss-was developed by Jack Palacio and Mike Tellechea for Gang-Nail Systems and in 1971 it became the first computer program offered to customers via time-sharing. Within a few years, these programs were converted to run on IBM 1130 computers, and other truss plate manufacturers followed Gang-Nail's lead.
- Robert Brooker developed the first truss engineering computer software package sold with the computer source code, based on TPI's 1974 design criteria.
- Truss plate manufacturers provided truss manufacturers with Computer Aided Design (CAD) capabilities and the option to handle truss design in-house. On-Line Data, Inc., created by truss plant owner and operator Dan Hurwitz, P.E., is one early example of this timesharing service.
- Development of Laminated Veneer Lumber and introduction of Micro-Lam product by Trus Joist.

1970:

- Jack Schmitt invented the 4x2 parallel chord truss, most commonly used as a floor truss.
- American Lumber Standards Committee voted to change lumber sizes. 2x4 changed from 1-5/8" x 3-5/8" to 1-1/2" x 3-1/2". These changes required all trusses to be re-engineered.

1971:

- Gang-Nail Systems and Alpine developed the plated bowstring and monopitch trusses for mobile homes based on load test results.

1972:

- Dr. Stanley K. Suddarth of Purdue University's Wood Research Laboratory introduced the Purdue Plan Structures Analyzer (PPSA I & II), a computer truss design system that he developed for truss design research and problem solving.
- Gang Nail Systems developed a new computer program, "Auto Plot," which would generate a sealed drawing greatly enhancing the engineering turn-around time for its customers.

1973:

- Carlos Rionda developed the “hinge plate” for Gang Nail Systems which solved the transportation height limitations and allowed for hi-pitch roofs for modular applications.

1974:

- Metriguard develops stress wave testing systems for locating decay in wood structural members of all types and for evaluating particleboard products during production.

1975:

- CMC became the Component Manufacturers Division (CMD) of TPI. Both TPI and CMD had boards and officers and there was a joint Board of Trustees.

1980:

- First computer generated framing plan-Auto Roof-was introduced by Gang Nail Systems and was incorporated into the time-sharing Auto truss software family.
- TPI sponsored the first BCMC show in Louisville, KY. From 1984-1991 the shows were co-sponsored by TPI and WTCA. During this time, shows held on even years afforded exhibitors with facilities suitable for showing heavy equipment while shows held on odd years were tabletop displays.
- BCMC held in Louisville, KY. Heavy Equipment and Tabletop Sponsored Event.

1981:

- Introduction of the first fire retardant treated lumber with low corrosivity in contact with truss plates (Dricon® fire retardant treated wood).
- BCMC held in Reno, NV. Tabletop Sponsored Event.

1982:

- Gang-Nail Systems introduced the first stand alone work station for truss design (the Sun Microsystem workstation) running mainframe identical truss software.
- Simpson Strong-Tie Co. was independently approached by both Charlie Barnes and Staton Douthit. They encouraged Simpson to address truss connection concerns which led initially to the THA double shear nailed hangers and eventually to over 100 products de-signed for the truss industry.
- BCMC held in Louisville, KY. Heavy Equipment and Tabletop Sponsored Event.

1983:

- CMD passed a motion to separate itself from TPI in April. Staton Douthit was the current president.
- CMD had an origination meeting in May and the Wood Truss Council of America (WTCA) was formed.
- BCMC held in Anaheim, CA. Tabletop Sponsored Event.

1984:

- Jim Gilleran of McCausey Lumber made a distribution agreement with Gang-Nail Systems to import Master Plank LVL from Finland for sale in North America. Later in the same year, GNS developed connector plate values and introduced, for the first time, LVL as truss chord material.

1985:

- Jerry Koskovich introduced the first automated component saw to the component industry.
- Smith, Bucklin & Assoc. of Chicago was selected as the new management company for WTCA. Henry Givray was named Executive Director.
- The first issue of WOODWORDS was published in newsletter form for WTCA membership.
- BCMC held in Phoenix, AZ. Attendees: 500. Exhibitors: 33.

1986:

- Jack Schmitt, inventor of the floor and metal web trusses, became WTCA's first honorary lifetime member in recognition of his leadership in forming the association and for his outstanding contributions to the industry.
- New and improved bearing location, lateral bracing, concentrated load and warning tags were developed by WTCA and made available to its membership.
- Staton Douthit and Dr. Stanley K. Suddarth became the first inductees into the newly established WTCA Hall of Fame in recognition of outstanding and dedicated service to the industry.
- Gang Nail Wood Products started production of LVL and I-joists sold through component manufacturers and expanded McCausey Lumber's Master Plank LVL sales to satisfy demand.
- BCMC held in Louisville, KY. Attendees: 1,240. Exhibitors: 45.

1987:

- The September/October issue of WOODWORDS was the first to contain advertising by WTCA Associate Members. First-time advertisers included Alpine Engineered Products, Eagle Metal Products, Hoover Treated Wood Products and TrusSteel Inc.
- BCMC held in Las Vegas, NV. Attendees: Exhibitors: 32.

1988:

- A task force on wood trusses urged WTCA to sponsor a voluntary standards program for in-plant quality control procedures for metal plate connected wood trusses. The result was the development of WTCA QC, an objective system of quality control procedures involving inspections of trusses and lumber, data recording and evaluation, culminating in the generation of reports that show the relative performance per inspection of trends occurring over time.
- Dan Hurwitz of On-Line Data was appointed to the WTCA Board of Directors as the first associate member to serve on WTCA's executive body.
- At the BCMC show, Alpine Engineered Products, Inc. introduced AutoSet®, the component industry's first computer-controlled and automated truss jiggling system.
- The MSR Lumber Producers Council was established to promote the benefits of Machine Stress Rated lumber for the purpose of increasing the usage and acceptability of the product with the truss industry specifically in mind.
- WTCA Engineering Review Committee was established.
- BCMC held in Nashville, TN. Attendees: 1,400. Exhibitors: 47.

1989:

- Joe Ziemba replaced Henry Givray as Executive Director of WTCA.

1990:

- The Past Presidents Council was appointed and will focus on long-range planning for WTCA.
- The board of directors created the position of Director of Technical Services and unanimously appointed Kirk Grundahl, P.E., Qualtim Technologies International, Inc., Madison, WI, to the post.
- Rene-Paul Lemyre invented Open Joist 2000, a glued finger jointed open web floor truss with a trimmable end detail. He was the first one to use finger joints in wooden trusses and also the first one to produce a floor truss with a trimmable end detail. Open Joist 2000 was introduced for the first time to the world at the 1993 BCMC show. Following this event, three truss manufacturers purchased a license to manufacturer Open Joist 2000 in North America.
- BCMC held in Jacksonville, FL. Attendees: More than 100+. Exhibitors: 59.

1991:

- In the fall, WTCA published all of the design value changes for lumber that were being made due to in-grade testing. This work continued into the fall of 1992 when WTCA published a series of tables that took a look at the impact of the new lumber design values and the new design equations that were developed in the 1991 NDS® on truss spans. A complete package of information was provided showing the span capabilities of the old equations and old lumber design values, new equations and new lumber design values, and old equations and new lumber design values.
- BCMC held in San Antonio, TX. Exhibitors: More than 40.

1992:

- Based on an idea that came out of the Marketing Committee, WTCA published the first edition of the Metal Plate Connected

Wood Truss Handbook. The handbook development process began in 1988 with a draft manuscript by Ed Callahan, P.E. that was edited and recompiled by Kirk Grundahl, Pam Dinsmore and Jay Edgar. Certain individuals were especially dedicated to making this book possible:

Robert Ward of Southern Components, Inc.; Will Eber of Dolan Building Materials, Inc.; Mike Bugbee of Simpson Strong-Tie Co.; Rip Rogers of Trussway, Inc.; Koss Kinser of Kintec Wood Truss Manufacturing, Inc.; John Herring of A-1 Roof Trusses, Inc.; Don Hershey of Imperial Components, Inc.; Steve Cabler of MiTek Industries, Inc.; Merle Nett of Richco Structures; Dan Hurwitz of On-Line Data, Inc.; A. Lane Vastine; Lee Vulgaris of Reliable Truss Co. Inc.; Lenny Sylk of Shelter Systems Group; and retired University of Illinois Professor Emeritus Don Percival.

- Qualtim, Inc., Madison, WI became WTCA's new management company. Kirk Grundahl, Qualtim's founder and the current Technical Director of WTCA, was named Executive Director of the association.
- BCMC held in Louisville, KY. Attendees: More than 900. Exhibitors: More than 40.

1993:

- BCMC '93 was a full equipment show held in Louisville, KY. This was the first BCMC show to be solely sponsored by WTCA.

1995:

- WOODWORDS moves to a 4-color/2-color magazine format, beginning with the January issue.

1996:

- WTCA QC was released for implementation in the fall of this year.
- Framing the American Dream® took place at the NAHB Builder's Show. Two identical 2,600 square foot homes were built—one conventionally framed, the other built with engineered components. The brochure and video entitled, What We Learned by Framing the American Dream®, detail what was learned about craftsmanship in component manufacturing.

1997:

- Framing the American Dream® II took place at the NAHB Builder's Show.

1998:

- Deacom, Inc. introduces the first [accounting and Enterprise Resource Planning \(ERP\) software](#) designed specifically for the component industry. The software is fully compatible with the industry's leading engineering programs, allowing truss builders to easily integrate manufacturing, billing, inventory, labor tracking, and purchasing.

1999:

- WOODWORDS moves to a full 4-color magazine beginning with the June/July issue.
- After a six-year distributorship with Haulin Trailers and ASI Industry, A-NU-PROSPECT begins manufacturing their own roller trailers.
- The first Turb-O-Web license was issued in the United States. Full time production of Turb-O-Web trusses commenced in Central Washington.
- The Steel Truss & Components Association (STCA) was formed (www.steeltruss.org).

2000:

- The Structural Building Components Council (SBCC) was formed, with representation from the Wood Truss Council of America (WTCA), the Steel Truss & Component Association (STCA), and the Structural Component Distributors Association (SCDA). The primary emphasis of SBCC is to create the best possible knowledge base with which to solve problems and create opportunities for the component industry.
- MiTek releases first "production ready," automated Turb-O-Web design software in its v4.2.

2001:

- Advanced Design Technology (ADT) and Viking Engineering announced that they were joining forces as a strong wall panel equipment provider in October of this year.
- The Turb-O-Web system receives two US patents, #'s 6,176,060 and 6,249,972.
- A small group of structural component distributors formed the Structural Component Distributors Association (SCDA) to represent the interests of companies that distribute structural components. Examples of these structural component products include I-Joists, LVL, Glue-Laminated beams, PSL and Trimmable-end Floor Trusses.
- The Carbeck Structural Components Institute (CSCI) was established as a non-profit organization to benefit the structural building components industry through research, development and education.
- WOODWORDS changed its name to Structural Building Components Magazine in November of this year to more fully embrace the scope of the structural building components industry.

The information provided here has been obtained by the Wood Truss Council of America (WTCA) from sources it believes to be reliable. However, neither WTCA nor its members guarantees the accuracy or completeness of any information published. Neither WTCA nor its members shall be responsible for any errors or omissions or for damages of any kind arising out of or related to the use of the information contained herein. This web site is published with the understanding that WTCA and the contributing authors are supplying information, but are not attempting to render engineering or other professional services. If such services are required, the assistance of an appropriate professional should be sought.