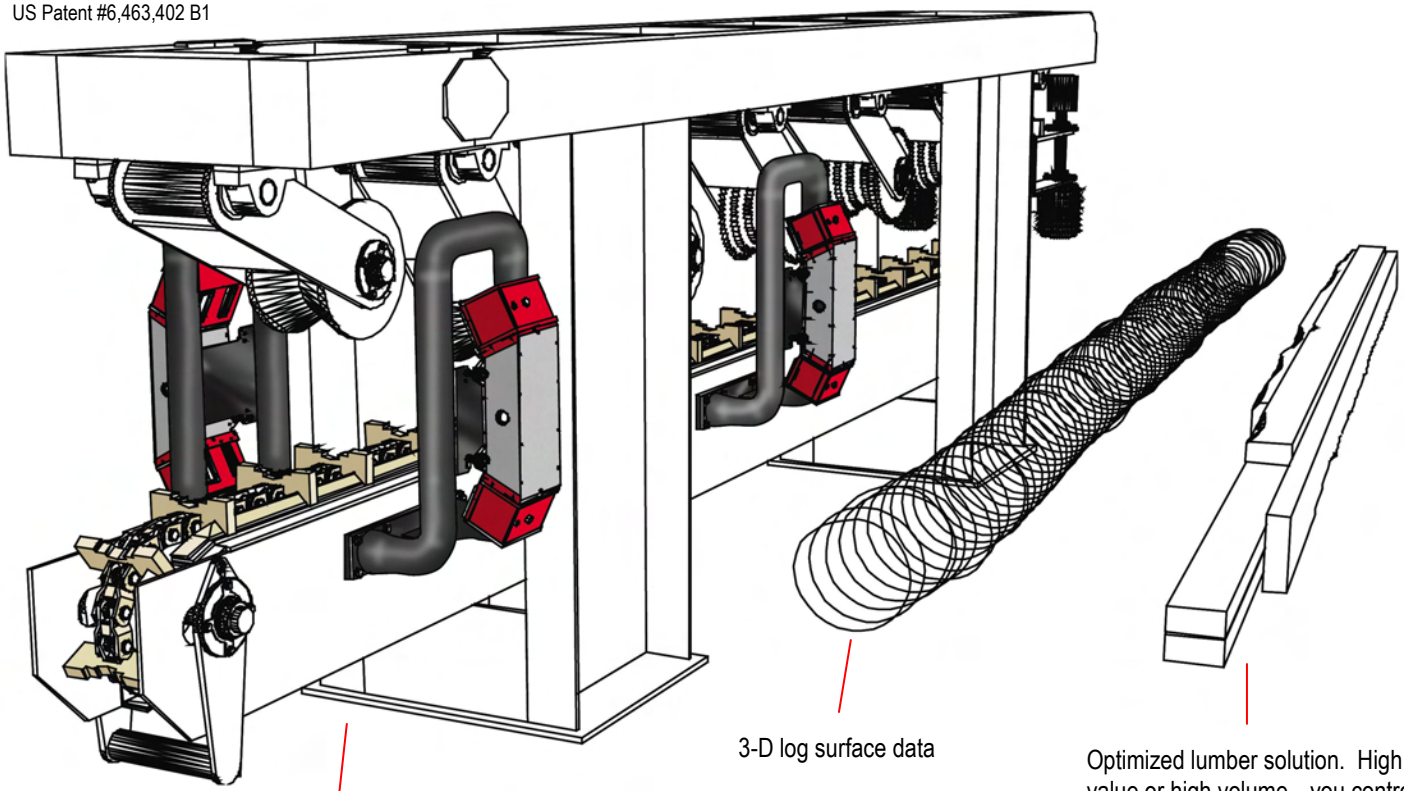
Compact 3-D Optimization Retrofit

Only Possible With the Fastest Optimizer in the Industry

TREE-D, INC. provides equipment that retrofits full 3-D optimization capabilities to existing C-N-S infeeds without the expense of a double length infeed and the associated costs of relocating up-stream log handling equipment. The only requirements are a slightly longer bed, two TREE-D T261Q quad head ring scanners and TREE-D's lightning fast optimization software package. Many mills in the Eastern U.S. are enjoying the benefits of this system and the list is growing. Discover how you can re-coup costs in months not years!

US Patent #6,463,402 B1



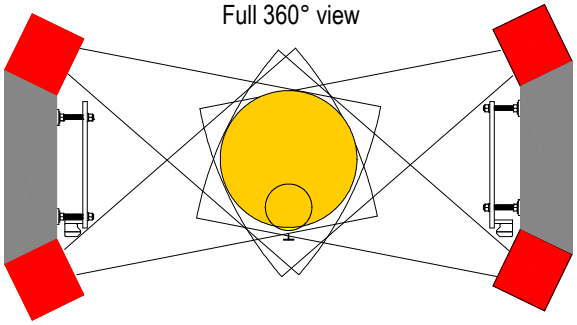
3-D log surface data

Optimized lumber solution. High value or high volume—you control

Your existing C-N-S infeed (gator chain or sharp chain) with a slightly longer bed and Tree-D's Dual T261Q Ring Scanners

Full 360° view

T261Q Quad Head Ring Scanner



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TREE-D

Compact 3-D Optimization Retrofit

Cost Effective Retrofit for C-N-S and Sharp-Chain Infeed Systems

Tree-D's Compact 3-D Optimization Retrofit System allows for use of the existing infeed frame structure while achieving full 3-D optimization on short logs and "virtual" 3-D optimization on long logs.

This system provides a major financial advantage for Chip-N-Saw (C-N-S) and sharp-chain infeed systems by eliminating the need for a double length infeed and the associated cost of relocating the up-stream log processing equipment. The Compact 3-D Retrofit will install with minimum re-engineering of the existing mill equipment.

Eliminates "Off Line" Style Shadow Scanning Problems

Tree-D's Compact 3-D Optimization Retrofit System eliminates "off line" style shadow scanning problems by mounting scanners to the infeed bed that has been extended, or replaced, to achieve a required minimum length of 4 feet longer than the longest log. This additional length requires very little, if any, changes to up-stream log processing equipment.

Additionally, centering rolls and a vee-rail style wear bar and chain added to the infeed steers logs to the center of the infeed and eliminates side movement of logs as they move forward and as flights wear. Bed shifting capabilities are required to achieve full benefit of the compact optimization system. Most mills have also added additional press rolls on the extension to help control logs as they enter the infeed chain.

Two Quad Head Ring Scanners Give Accurate 3-D Log Images

Tree-D's Compact 3-D Optimization Retrofit System requires two Model T-261Q Quad Head Ring Scanners, the first of which is placed a minimum of 2 feet down stream from the infeed tail sprocket.

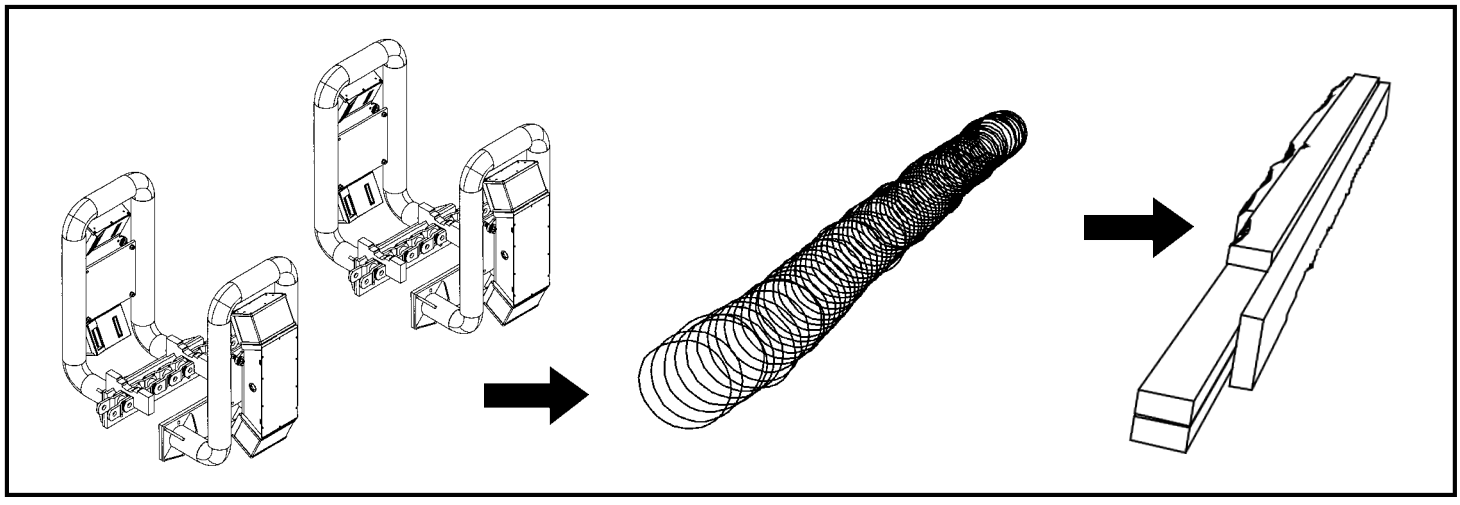
A second ring scanner is located at one-half the maximum log length down stream from the first scanner. When a log reaches the second scanner, the system assumes it has been rotated and that the lead end of the log is stable as it moves forward. At that time, both scanners will begin recording 3-D rings (true shape log profiles) at approximately 1" centers. The optimizer recognizes vertical or horizontal movement can occur as the log continues to load onto the chain.

Once the log tail end has passed the tail sprocket, it is stable on the chain and all subsequent rings represent the log in its true position as it enters the C-N-S or sharp-chain. The log travels forward in this stable mode until the lead end reaches a point 2 feet from PCD where scanning action is terminated and pattern solution commences.

This process produces a combination of "non-stable rings" obtained while the log was transitioning onto the infeed chain and "stable rings" obtained once the log was fully loaded. Using the X & Y positions from the "stable rings", along with the X & Y positions of the leading rings, the system interpolates a three-dimensional curve along the length of the log and realigns the "non-stable ring" images accordingly. Tree-D owns the patent for this unique process.

Major Savings on Lumber Recovery and Grade Improvement

Hundreds of our durable laser scanners are currently in service, operating effectively in the presence of daylight and in harsh sawmill environments. All mills using this system have reported a very significant improvement in controlling such parameters as edge and face wane and lumber lengths. For additional information, contact us toll-free at 866-906-9335.



Tree-D's Dual Quad Ring Scanners — Produce 3-D Optimized Patterns — Improve Grade & Lumber