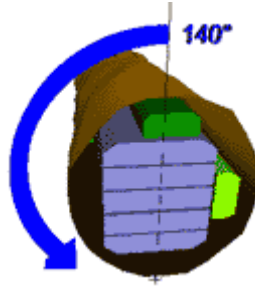


MPM ENGINEERING LTD.

RESEARCH ENGINEERING SALES

Turner Optimizer

MPM's *Turner Optimizer* calculates the most desired log rotation based on either the angle with the highest value / yield or physical characteristics like the location of the sweep.



To do this, the *Turner Optimizer* incorporates four key elements: image analysis, external inputs (e.g. PLC controls), product definition, and sawmill machinery modeling.

Image Analysis

The detection and application of surface features is used in the processing and optimization routines. For example, depending on the scanning equipment used, the log shape and how it lies after Turner rotation can be accurately modeled.

External Inputs

An interface is available for our optimization system to receive data from various external locations. This data can be used in conjunction with our internal optimization system, or can be just recorded in the databases for reporting purposes. For example, a PLC can be used to tell the optimizer whether curve sawing should be considered or certain saws are disabled.

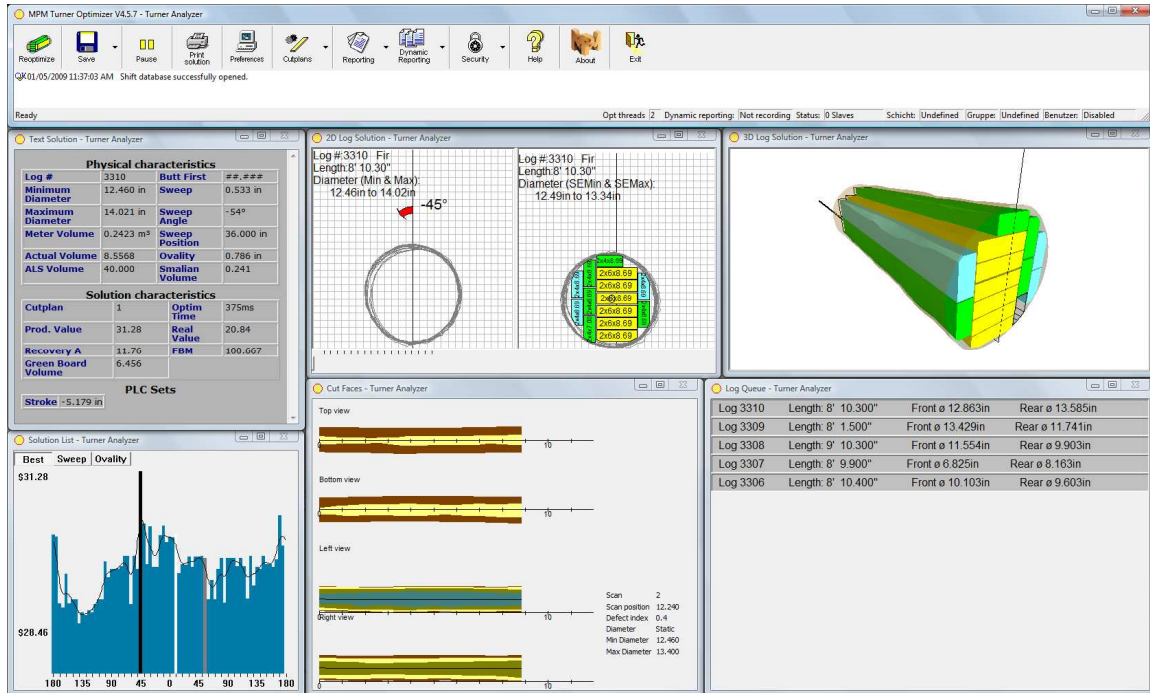
Product Definition

Full product definitions, organized into groups and grades, are used in the patterns and product fits for determining the best solution. Using settings such as *Wane*, *Length*, and *Value*, a multitude of situations can be optimized for.

Sawmill Machinery Modeling

MPM's optimization systems contain detailed machine models in order to closely represent the sawmill process – and the Turner Optimization system is no exception. Whether the sawline is straight or curve sawing, skewing, profiling, or has multiple center cant saw clusters, our machine models are manufacturer specific and configured to all limits defined by the customer and manufacturer's recommendations.

Key Features:



- Scanner type independent for customer flexibility.
- Simulations can be run off-line to evaluate different parameters and machinery configurations.
- Optimization can be based on price or volume while allowing product priority to attain specific production requirements.
- Optimizes using a variety of downstream machine types/brands and their specific features. (*Turners, Infeeds, Breakdowns, Gangs, etc.*)
- Optimizes for a product by considering features such as *Wane, Pith Location, Length, Location, etc.*
- Depending on the machines defined, curve sawing can be factored in during optimization.
- Rotation analysis determines the "best" rotation position as being the solution with the lowest risk and highest value.
- Rotation angle resolution can be as fine as 1°.
- Rotation calculations are based on the true shape of the log and not a geometric based model of the log.
- Log load tracking that can be used to track specific suppliers.
- Settings can be linked between multiple MPM systems for centralized setting configuration.
- A variety of graphical displays help the user to analyze a solution.
- Extensive and customizable production reports.



MPM Engineering Ltd.
 #200-5465 192nd Street
 Surrey, BC V3S 8E5, Canada
 Tel: (604) 574-1397 Fax: (604) 574-0627

Sales Inquires: (604) 290-7633
 Email: mpmsales@mpmeng.com

www.mpmeng.com