

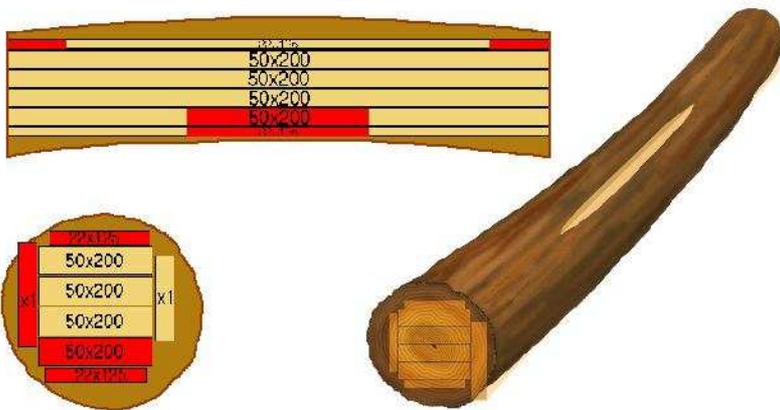
3D OnLine optimisation

ProOpt is a computer based system for the optimisation of the yield recovered from logs. The optimisation is carried out “on-line”, i.e. while sawing is in progress.

Each log is optimised individually according to its unique shape directly after having passed through the 3D scanner in the system. The scanner measures the shape of the log and supplies the information required for the optimisation calculations.

Benefits

- **On Line**, real time, full optimisation.
- Determines **cut pattern**, log **turning angle** and **alignment** position for each log or cant.
- A **modern user** interface makes it easy to get an overview and to work with the application.
- Off line **simulation tool** for production control and planning.
- Flexible **report generator** and log **data export** for office applications.



About ProOpt

ProOpt is a modern optimisation system and is based on scanning every log very exactly with a 3D log scanner, which for every log defines thousands of points along the surface of the log. This information is used to create a model, of the true shape of the log, in the memory of the computer, which then is used for optimising the log.

ProOpt uses full optimisation (not to be confused with other semi optimisers on the market).

Optimisation can be performed with respect to best economical value (price/m³) or maximum volume of the yield.

Definition of products

Each optimisation and generated cut pattern is based on defined products. Products are defined as combinations of desired dimensions for centre yield and side boards, species, values (price/m³), priorities, vane limits, log or cant boards, machine capabilities etc.

All data about products are entered into saw programs. Different programs can be used for different purposes, e.g. different customer specifications, orders, species, log classes, machine set-up, etc.

Optimising procedure

The optimising process determines the best settings for curve sawing, log turning and saw pattern. The system takes into consideration the 3D shape of the log and the sawing capabilities of the machines (e.g. accuracy and possibilities of rotation, in-feed side shift, asymmetrical boards, curve sawing and max/min sizes).

The conditions for the centre and sideboards is stated in ProOpt as well as the parameters for

allowed vane and cut. The optimisation process calculates the best product combination with the highest exchange value with consideration to these given conditions.

ProOpt will not only determine the best cut pattern but also the optimal log turning angle and alignment position for each individual log or cant.

Simulation – for control and planning

The possibilities to use ProOpt as an off line simulation system are very good and logs can be theoretically cut one by one or in batches.

The way the logs are cut can be changed manually where log turning, alignment, curve-sawing capability etc. can be tested. It is also possible to try different cut patterns and to combine cut patterns manually.

The system is an excellent tool for controlling the production, where information from the existing log stock can be entered and used for planning of the operation of the mill.

Reports and data export.

All production data are stored in a database and the production reports are created by a report generator which can create reports over a certain period time or type of logs. Data from the database can also be exported to other file types and applications; e.g. Excel or Access, for further use.

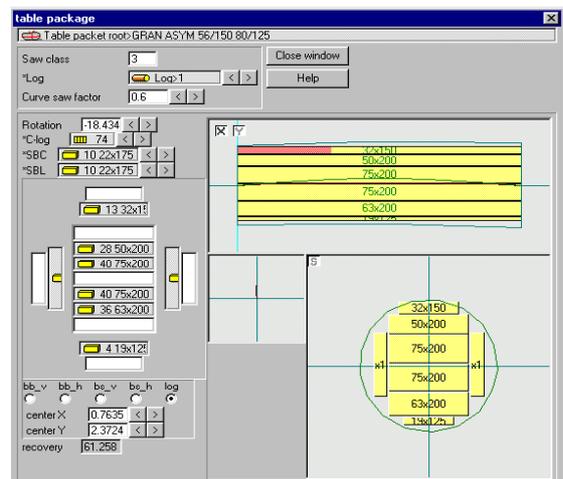
User interface

ProOpt offers great possibilities for graphical display of the optimisation on the screen so

that the user always can see how the system "thinks".

Below is shown an example of how the 2D display on the screen looks and there is also a 3D display that show each log and every single board in the cut patterns.

ProOpt is based on *common windows standards*, which makes it easier for the user to recognise controls and learn how to work with the program.



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