USER

MANUAL

Version 1.0

Online optimization of sawing patterns for angle circular sawmills

Для версии на **русском** языке нажмите тут

Pre **slovenskú** verziu kliknite tu

Chapters

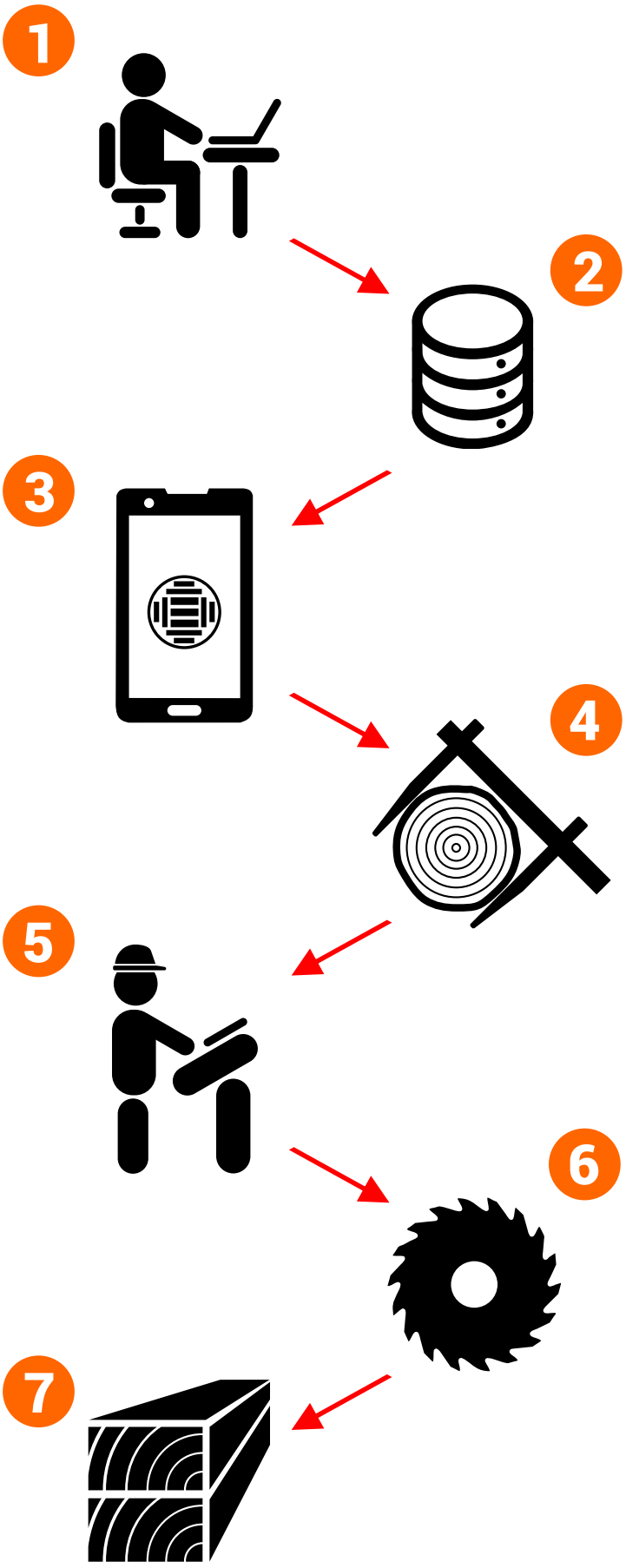
Important note

The system is continuously fine-tuned, so some examples in this manual may differ from the current online version.

Funkcie a benefity systému

- ✓ **All sawing patterns in one place**
- ✓ Access to one's own database of patterns anywhere and anytime
- ✓ Easy pattern creation
- ✓ Visual simulation of the sawing process
- ✓ Clear classifying of patterns into folders and categories by parameters
- ✓ Manual editing and creation of a pattern
- ✓ Transfer of data and patterns to the mobile application
- ✓ Creation of sawing tallies in the mobile application
- ✓ Coordinates of timber placement and sawing steps in digital form
- ✓ A system for any connection to a PLC (wired, wireless ...)

The system and how it works



1. Creation of sawing patterns in the online OPTI-TIMB system
2. Automatic saving of created patterns in the online database
3. Synchronization (transfer) of the database of patterns and other data to the OPTI-TIMB mobile application
4. Identification of the specific log data prepared for sawing (wood species, dimensions, heartwood, etc.) by the operator
5. Selection of a suitable sawing pattern for a given log by the operator from the database in the mobile application
6. Export of the sawing coordinates from a mobile device to a PLC & sawing by a sawmill
7. Final product

Settings & Preferences

In the Settings & Preferences section, you need to enter or edit basic system settings, such as unit system, currency unit, log scale rule, etc. It also allows you to preset some of the frequently entered values and options for faster work with the system.

Units, Currency, Log scale rule - basic system settings

Optimization level – Timer (Default value) - for optimized pattern generating, the application needs to process a large amount of data and this requires sufficient time. The higher timeout set, the more optimization algorithms are used and the better the result should be.

Quarter – Plain-sawn (°) - threshold angle for defining quarter & plain-sawn timber.
More in the section Timber – quarter & plain-sawn

Priority (Default state) - based on the priority selection (yield/price), the OPTI-TIMB application selects optimization algorithms that focus on the currently selected priority. In the case of yield, the main criterion will be minimal waste, and in the case of price priority, the highest possible profit derived from the price of timber.

Log trunk turnover (Default state) - the default setting for a new pattern, whether the newly created pattern will rotate or not rotate the trunk.

Level of trunk turnover (max.) (Default value) - maximum height for the rotational plane, defined as a percentage of the log diameter at the big end.

Profit - total profit from sawn timber or from sawn timber and deducted log price

Template & Color Palette - selection of a graphic design and color to display the cross-sawing pattern

Exact dimensions and estimates - attaching of the dimension heights of the section planes (for the Y axis) to the pattern figure..

Log – Values (Diameter / Taper) - selection of the preferred method of entering log dimensions

Log – Length (Default value) - the most commonly used length for log items

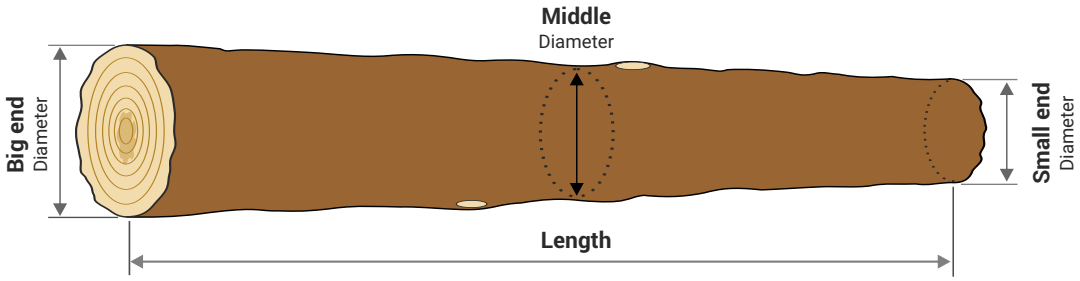
Important note

Default valuet - A value that will be preset but which can be changed. Changing the units, currency or log scale rule will also **affect other parts, features and services** on the DREVARI and TIMBERPOLIS portals. The information and settings in this section are extremely important, so pay maximum attention to them.

Logs – measurement & dimensions

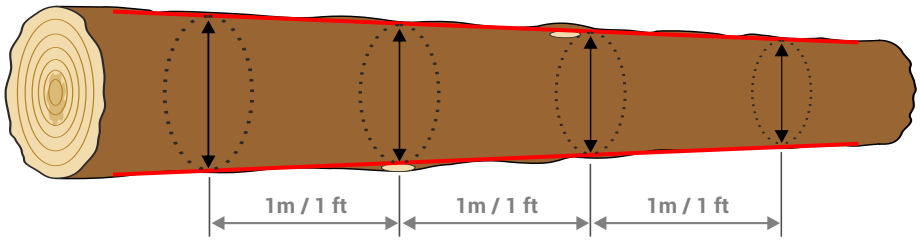
The OPTI-TIMB system supports several ways to enter log dimensions (diameters):
- **Small end diameter & Big end diameter** **We recommend**
- Small end diameter & taper
- Middle diameter & taper
- Big end diameter & taper

Diameter & Length

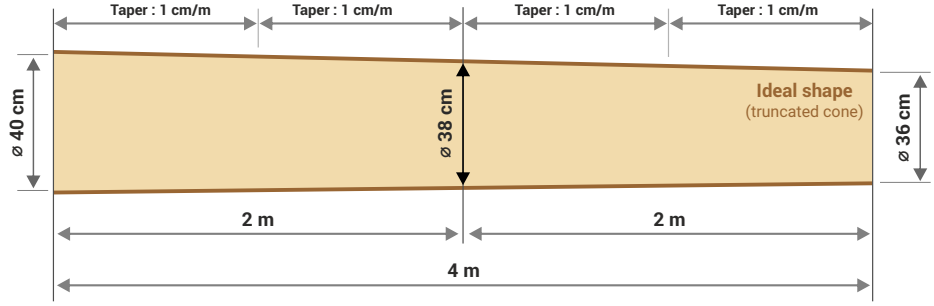


Taper – approx. value

In the Taper section, the system allows you to define a default approximate taper value for each wood species separately. While entering log items, the user can change the taper to a value different than the default. When the user uses the taper in the dimensions of the log, the other diameters are **automatically recalculated** accordingly.



Example



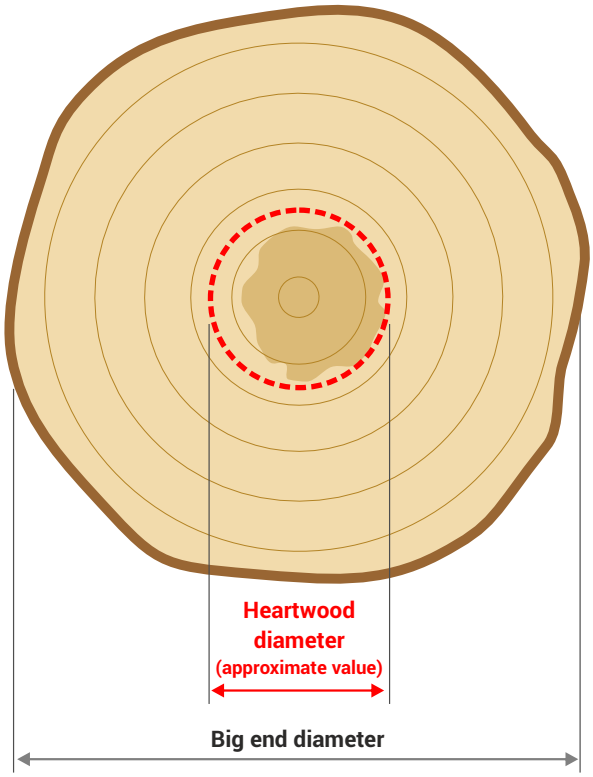
Diameters : 36 / 38 / 40 cm

Important note

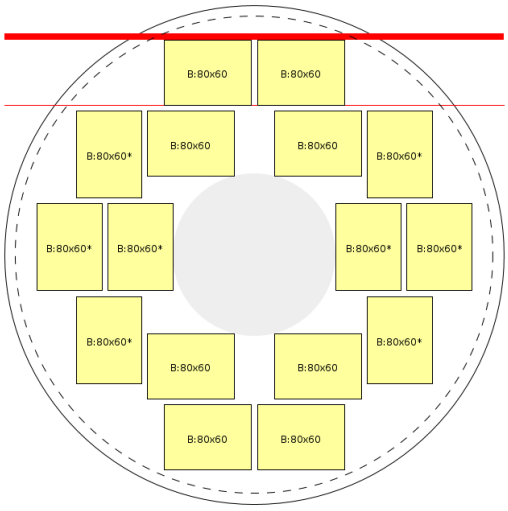
Diameters are measured inside the bark. For simplicity, a truncated cone model is used. Log items that are already used in the saved patterns cannot be deleted or changed in the table (except for price and volume).

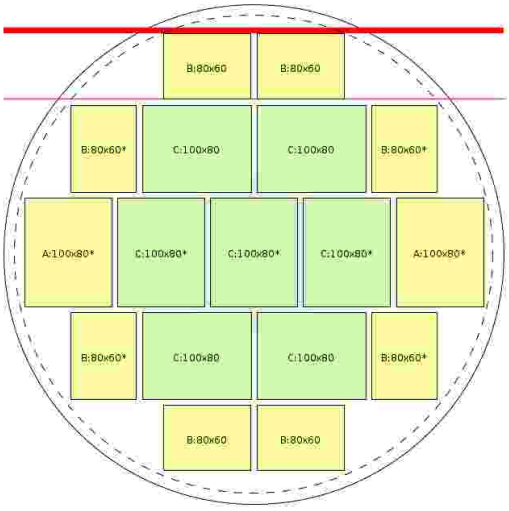
Logs – heartwood

The heartwood is the central, color-coded, inactive zone with dead cells, fulfilling only a static function. In this part (in the zone) the system places only timber of the center board type. The size of the heartwood is entered in the form of a diameter (in cm) to the center of the log.



Example without and with center board



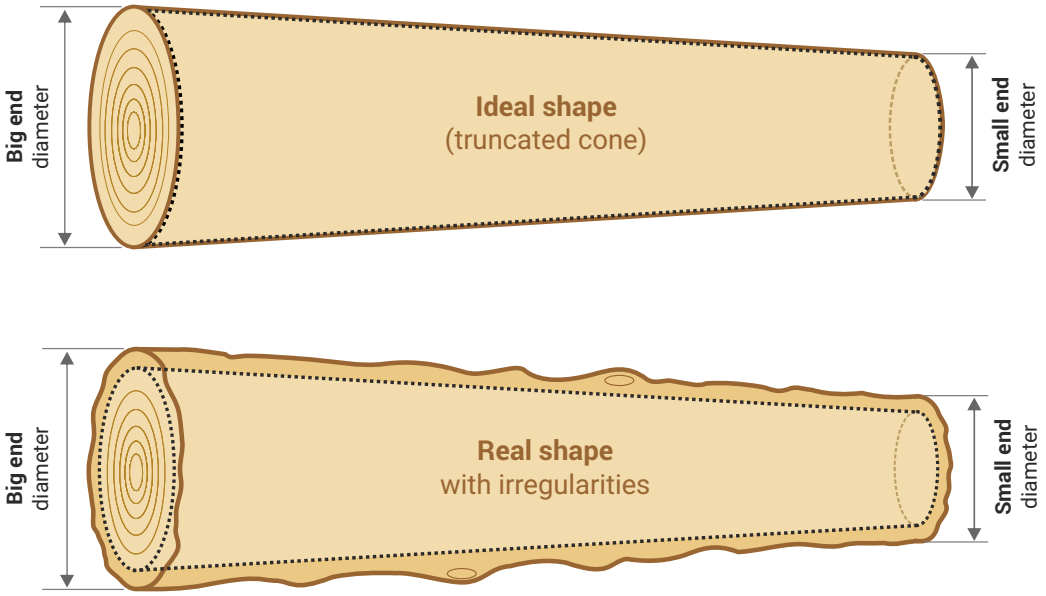


Important note

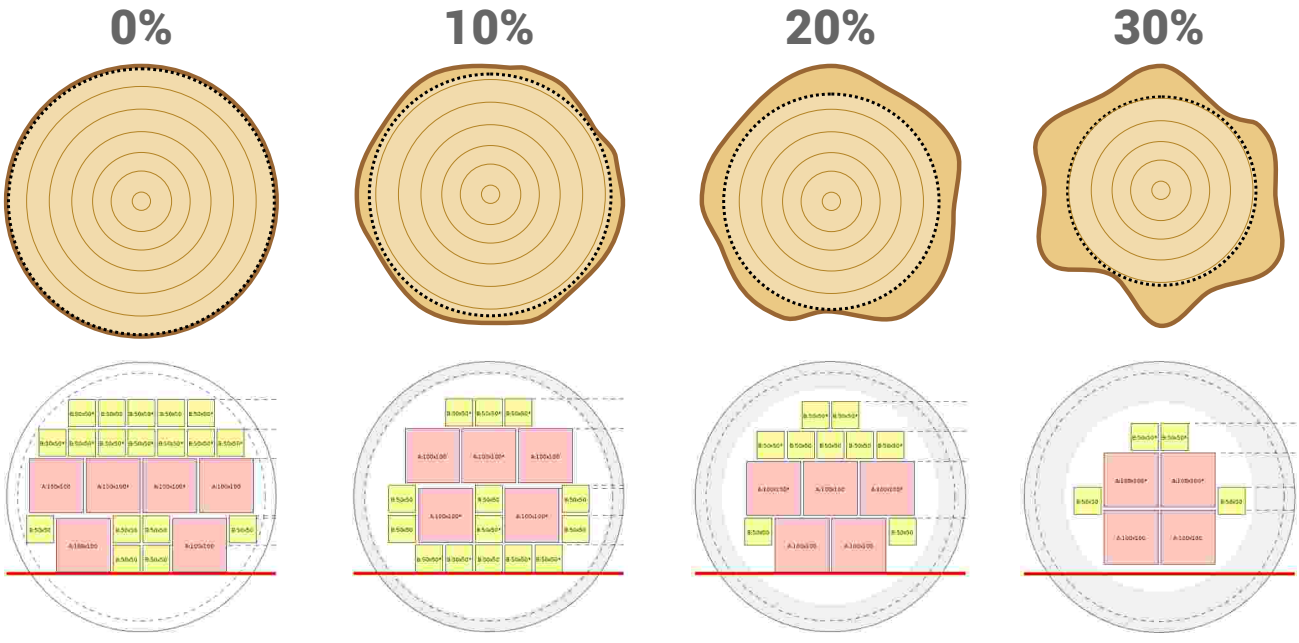
Only the center board and Semi & Rift-sawn type of timber can be placed in the log heartwood zone, if the selected log contains such a heartwood diameter. If no such type of timber is assigned in the pattern, the heartwood zone remains empty.

Logs – waney-edge board zone

The shape of the log is not ideal (a truncated cone with circle profile); for this reason the OPTI-TIMB system allows the size of the edge zone to be determined which takes into account such irregularities and ruggedness. The edge zone thus defines a potentially “dangerous” outer layer, where the edge of the log can be encountered during sawing and is determined as a percentage of the diameter at the big end. In this zone, the system places only semi & rift-sawn timber. More in the Waney-edge board section.



Samples



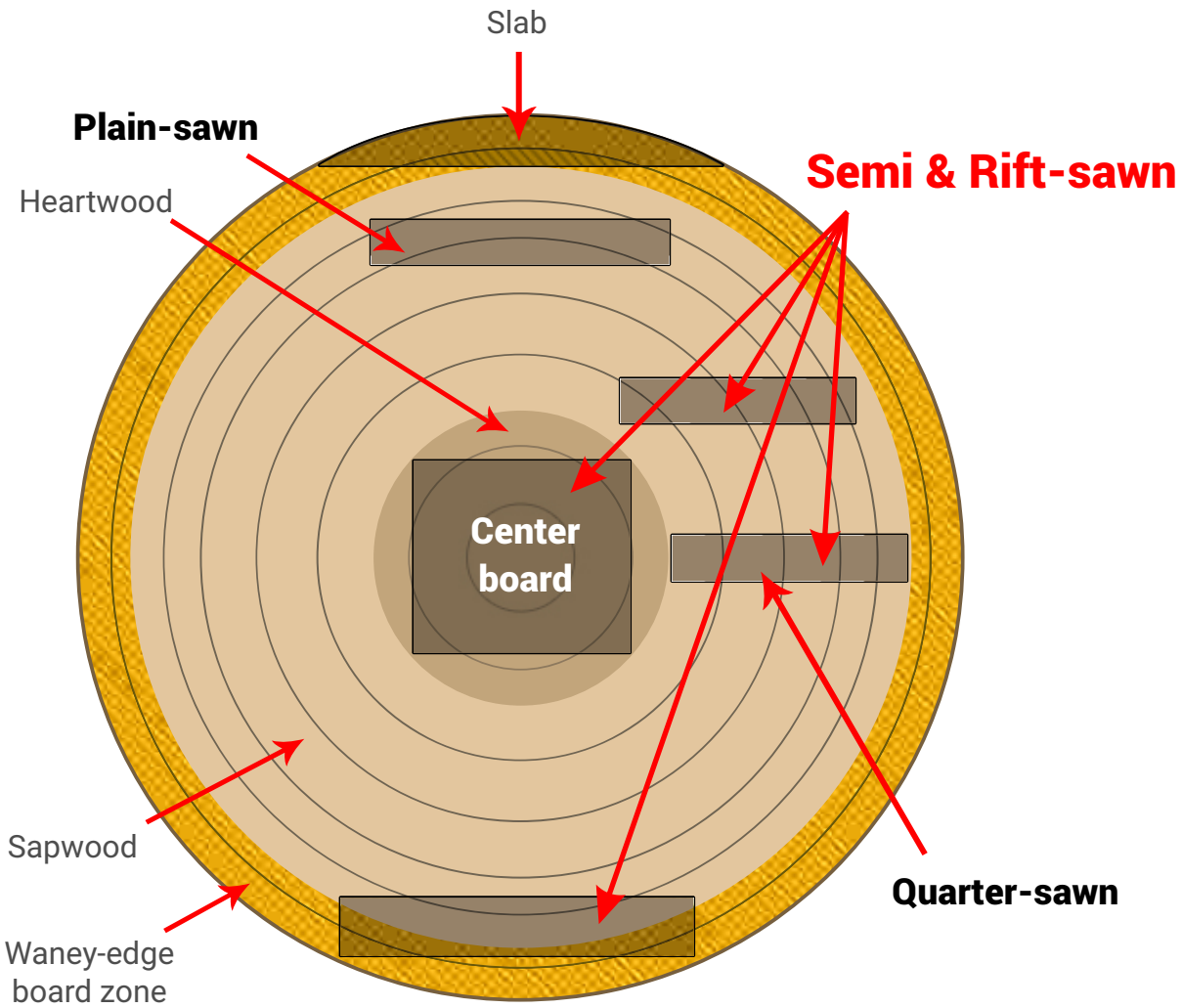
Important note

For simplicity, a truncated cone model is used. For the sake of clarity, the edge zone in the figure is graphically marked only at the wider end. However, in patterns, the system takes into account the waney-edge board zone even at the small end, so the timber is offset from the circle indicating a small end diameter of the log.

Timber – types

Optimization of sawing patterns in the OPTI-TIMB system allows several types of timber to be entered with different properties.

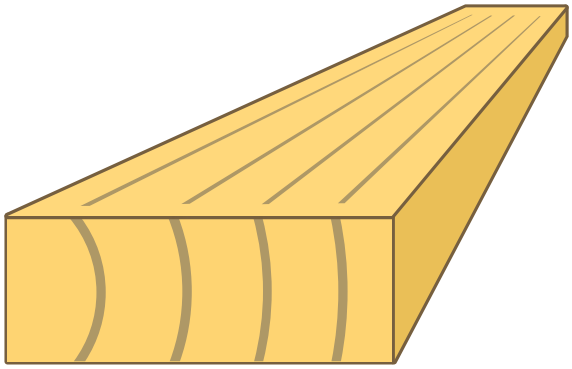
Semi & Rift-sawn - a combination of quarter-sawn & plain-sawn timber
Quarter-sawn & Plain sawn - timber defined by the sawing angle – more information
Center board - timber intended for placement in the heartwood zone, if the heartwood is defined - more information



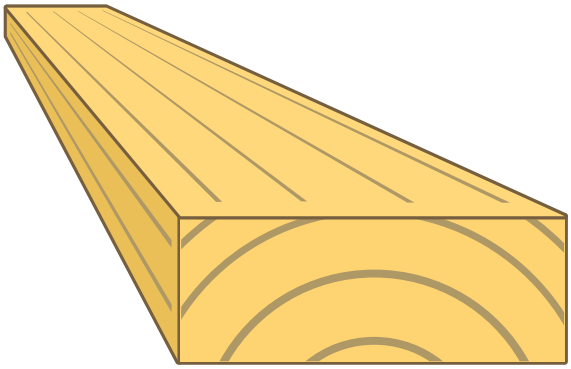
We recommend

For the best results in optimization, we recommend using a **Semi & Rift-sawn** type of timber. The application takes this as universal and without restrictions for its placement (except the heartwood and waney-edge zone) in the pattern.

Timber – quarter & plain sawn



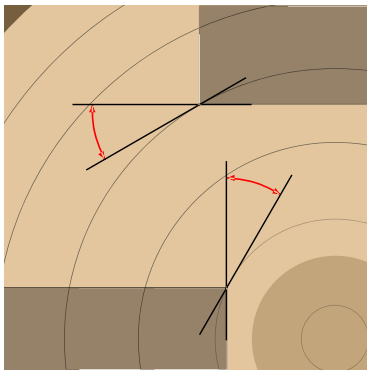
Quarter-sawn



Plain sawn

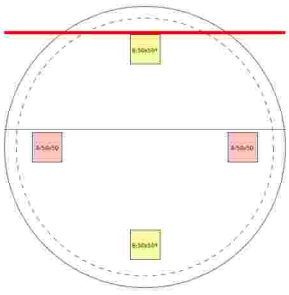
Threshold angle

The OPTI-TIMB system allows you to define quarter & plain-sawn timber based on a threshold angle. This means the maximum angle between the annual rings and the wider side of the timber. The value must be between 0 and 90 and is defined in the Settings & Preferences.

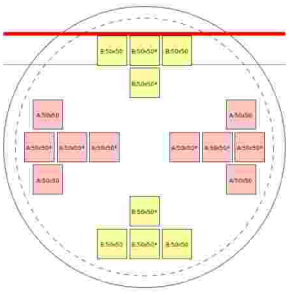


Examples with different threshold angles

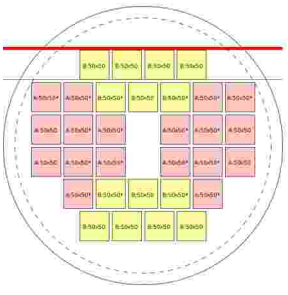
∠10°



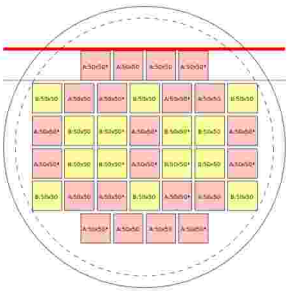
∠30°



∠60°

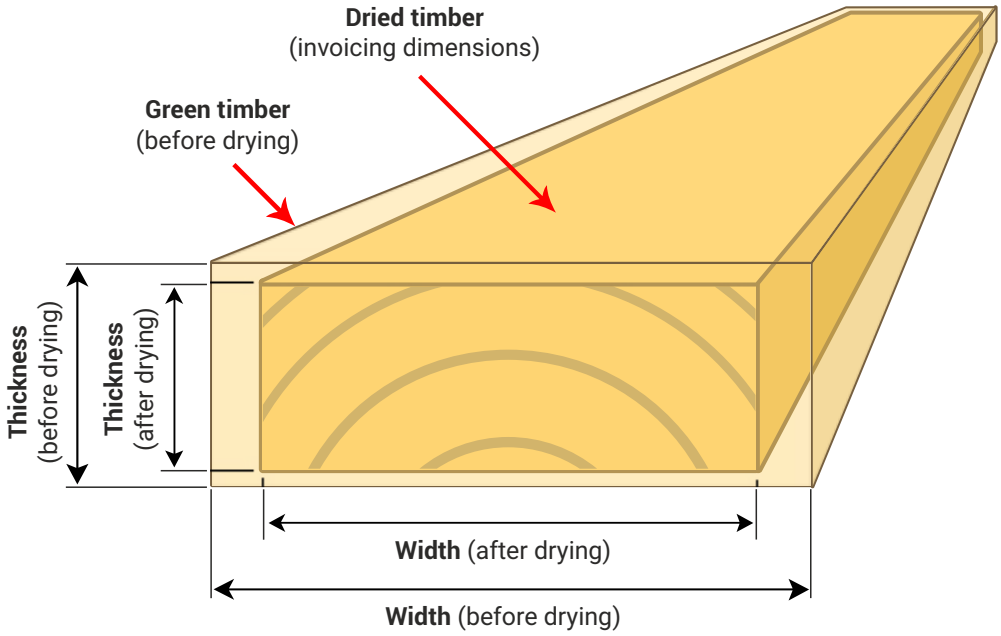


∠90°



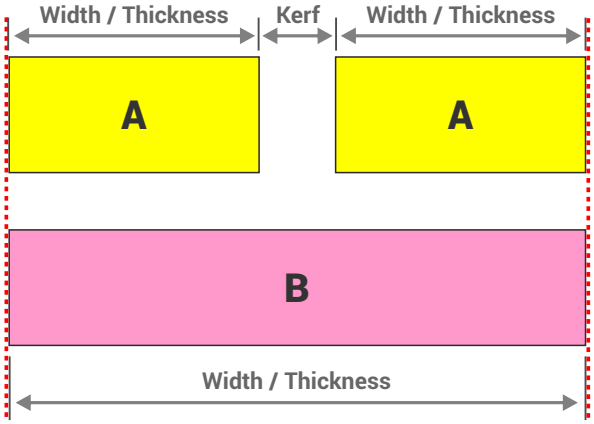
Timber – dimensions

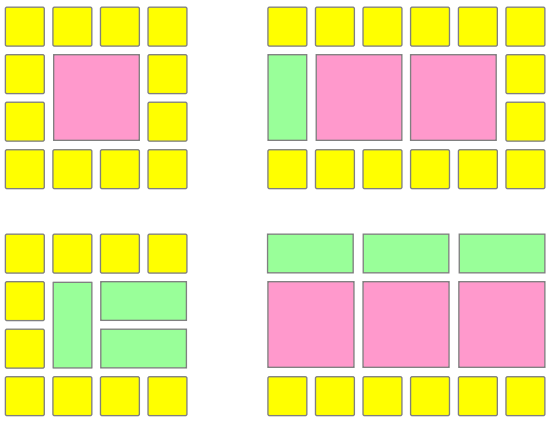
Timber dimensions are entered in millimeters for the metric system and in inches for the imperial system. The OPTI-TIMB system only takes the dimensions of the sawing into account. Invoicing dimensions are for informational purposes only. The system offers the possibility of automatic recalculation of dimensions after drying on the basis of the wood species used and the values of tangential and radial drying assigned to it.



We recommend

For best results in optimization, it is good to use timber dimensions (width and thickness) together with the kerf of the saw so that **they can be combined with each other**. See the examples below.





Important note

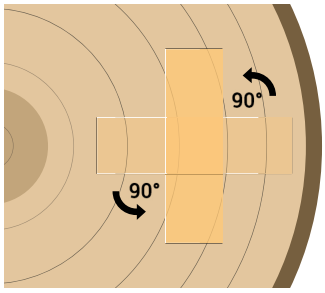
For correct processing, the value of the timber width **must be greater than the thickness**.
The system uses only sawing (before drying) dimensions for optimization. Invoicing dimensions are for informational purposes only. Invoicing dimensions are only automatically recalculated when entering only quarter or plain-sawn timber types. Timber items in the table that are already used in the sawing patterns cannot be deleted or changed (except for prices and priorities).

Timber – other parameters

To achieve the best optimization results, the OPTI-TIMB system allows you to define several specific parameters for timber items.

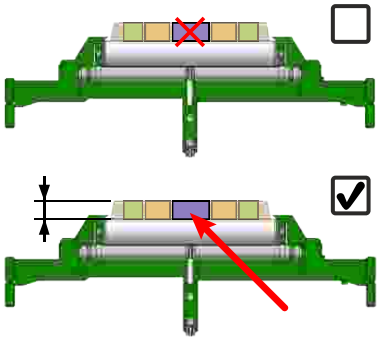
Rotation

This parameter allows the timber item to be rotated by a 90° angle when generating the pattern. It thus changes its type from quarter to plain-sawn and vice versa..



Last board zone

Checking this parameter for a timber item allows its placement in the layer of the last board in the log rotation patterns. Timber without this parameter will not be placed in the layer of the last board.



Shrinkage

When this option is checked, the system converts the dimensions entered for sawing to the expected dimensions after drying (invoicing dimensions). However, this is only informational data, and the user can modify it at his own discretion. Automatic conversion only works for the quarter and plain-sawn type.

Priority (0 - 10)

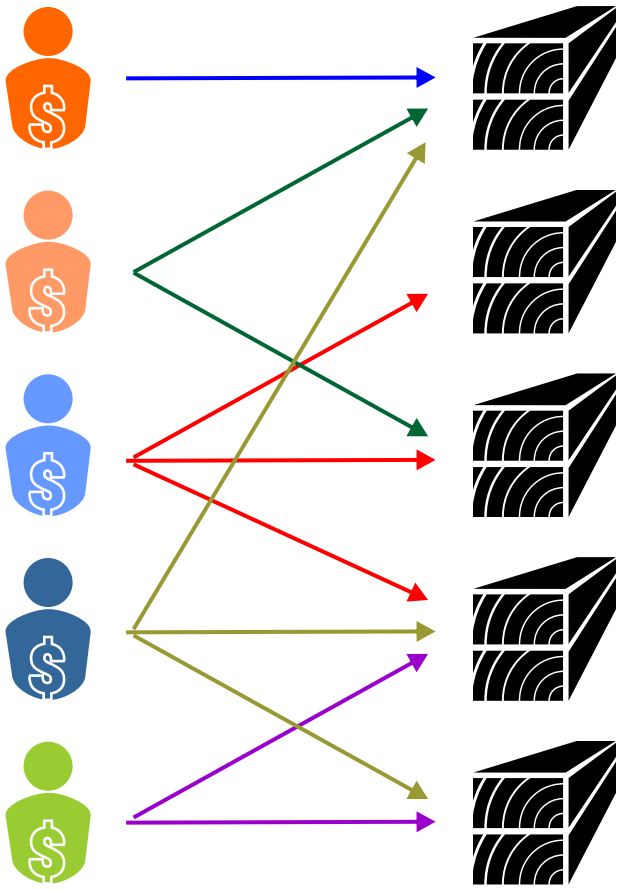
Priority is defined as a kind of imaginary value – the demand of a given timber item in sawing patterns. Thus, the higher the value, the more the timber will be used in the patterns and vice versa. The value can be from 0 (minimum desired) to 10 (maximum). When generating patterns, with the main price priority, the effectiveness of the priority value is limited.

Important note

Timber items in the table that are already used in patterns cannot be deleted or changed (except for prices and priorities).

Timber – assignment to a partner

For maximum comfort when generating sawing patterns, the OPTI-TIMB system allows selected sawn timber items to be assigned to a specific partner. In other words, you can specify which sawn timber the partner is commercially interested in, and when creating a new cutting scheme, the system will offer only those sawn timber items that were previously assigned to that partner. This significantly speeds up work with the system.If no sawn timber is assigned to a partner, the system will offer all entered items, and the only filtering criterion will be the wood species parameter. The assignment of sawn timber to a partner is located in the main Sawn Timber section, via the link Partners ⟹ Products.



Important note

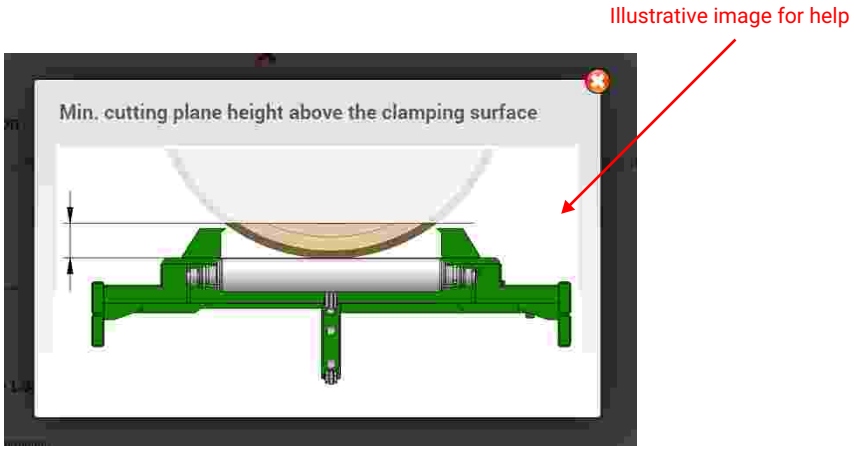
The basic filter when displaying sawn timber items during the creation of a new scheme is the wood species – a fundamental parameter that is defined at the very beginning in the basic settings. Therefore, if a sawn timber item assigned to a partner is missing from the list, it is likely that it belongs to a different wood species.

Machines

In the Machines section several items of equipment can be defined – sawmills, which differ, e.g. by the kerf or the minimum height of the sawing above the clamping surface or other type of PLC, etc. The OPTI-TIMB system prepares a sawing pattern based on these data, so it is of the utmost importance to enter the correct information. Please note that incorrect data may damage the machine or even endanger personnel..

Entering machine parameters

When entering individual machine parameters, the OPTI-TIMB system checks each value to correspond to the actual possible scale. For this reason, the minimum and maximum possible value of the parameter is listed below each field. In case of doubt, illustrative image help is also available. After entering the correct value, a green icon will appear in the given input field. The red cross icon means a parameter is missing or there is a bad value for the allowed range.

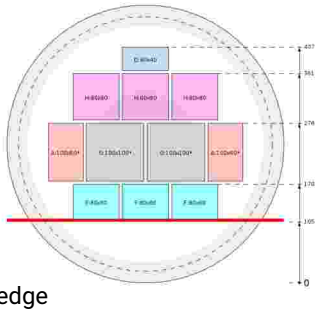


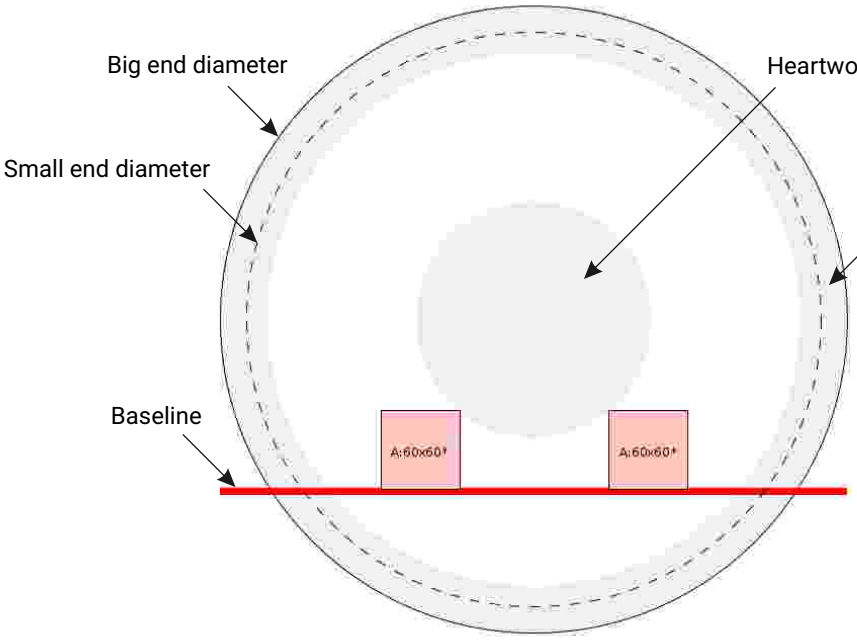
Important note

A machine item that is already used in the sawing patterns cannot be deleted or modified (except for the name and the PLC) for the purpose of keeping the correct data. Pay maximum attention to all machine parameters, but especially to those where an incorrect value can cause damage to the machine and endanger safety or some other serious accidents or loss.

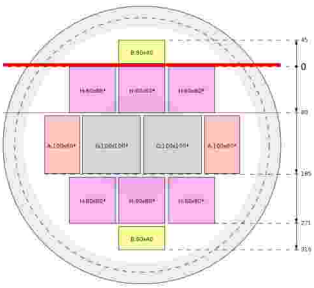
Sawing patterns

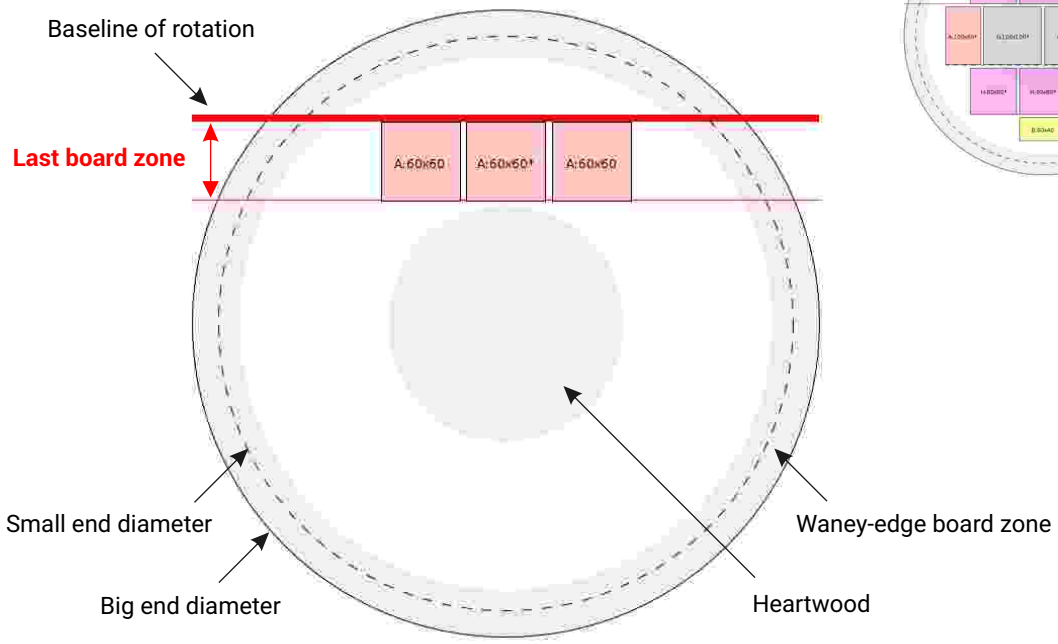
Without trunk rotation





With trunk rotation





Important note

If the log associated with the pattern has a defined waney-edge board zone, for the sake of clarity it is graphically marked in the figure only at the big end. But in the patterns, the system takes into account the waney-edge zone even at the small end.

New pattern

Video TUTORIAL

1 Main settings

Entering and setting the basic parameters of the pattern, such as the pattern name, wood species, trunk rotation, priority, etc.

2 Log

Selection of **1** log item for which the sawing pattern is to be generated.

3 Timber

Selection of those timber items (the number is not limited) that should be used in sawing patterns. Based on the entered criteria, the system selects the most suitable ones and places them in the sawing pattern.

4 Optimization

Selection of one of the 3 basic processing patterns:

a/ OPTI-TIMB (Software algorithm) - all data and requests will be forwarded to special software, whose optimization algorithms process all the information and then offer sawing patterns for evaluation by the user and storage in the list – database.

b/ MANUAL EDITOR (Drag & Drop) - Manual creation of the pattern using a “Drag & Drop” system - more information

c/ OWN CUSTOM PATTERN (Upload) - This option allows you to upload an image of an already finished patterned to the database - more information

5 a/ Sawing pattern OPTI-TIMB

The optimization software offers approx. 16 sawing patterns for storage and at the same time these 4 options for further action in the form of buttons:
CANCEL (BACK) - Returns the user back to the Optimization section, from where he can additionally change any of the previous sections (pattern settings, timber items, logs, etc...).
CANCEL (RE-OPTIMIZE) - If none of the offered patterns suits the user, the system will start the optimization process again.
SAVE (RE-OPTIMIZE) - The user has selected at least 1 pattern to save but still requires the generating of more.
SAVE (FINISH) - The user has selected at least 1 pattern to save and wants to stop creating more patterns.

b/ Sawing pattern Manual editor

The system opens a manual editor interface, where it is possible to directly create patterns using the Drag & Drop method. More information.

c/ Sawing pattern Own custom pattern

The user uploads the image of a pattern to the database and, if necessary, enters additional information, such as yield and profit. More information.

Editing, improving and copying a pattern

Pattern modification – final tuning after saving

No system can always generate 100% optimized sawing patterns. For this reason, OPTI-TIMB offers the possibility of fine-tuning the pattern in the manual editor or a combination of generating a sawing pattern by software and additional editing in a manual editor. More about the manual editor.

We recommend

If the optimization software offers the user a scheme or schemes that **meet the conditions and are suitable for practical use, apart from minor details, we recommend saving them.**
In the manual editor, it is very easy to fine-tune them into a satisfactory final form. In the Cutting Schemes section, where an overview of all schemes is available, find the one you need to modify, click the icon in the upper-right corner (three dots), and in the menu click the Edit button. The scheme will open in the manual editor, where you can then make your adjustments.

Copying a pattern

If the user has created a pattern that he want to use as the basis (with minor changes or without changes) for generating additional new patterns, he can use this function. By copying, the system creates a duplicate that can be used immediately or any part of which can be changed (timber items, log, etc.).

Mass editing

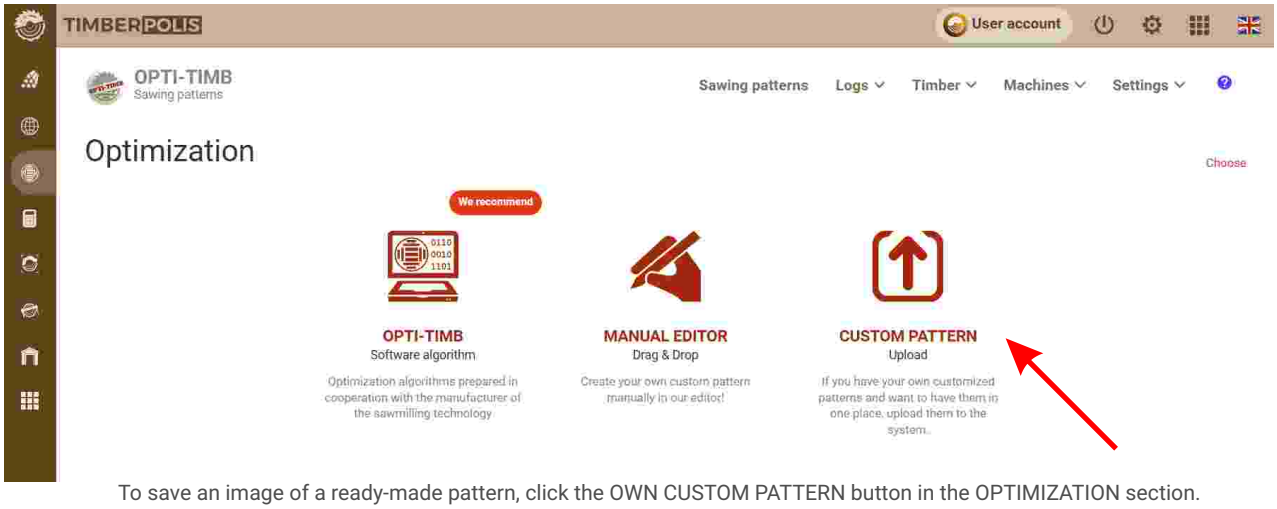
In the Sawing patterns section, where the list of saved patterns is located, it is possible to switch the display from tiled to tabular.
In this table it is possible to edit several kinds of data, parameters such as, e.g.
- order of the patterns in the list
- name of a pattern
- assignment of a pattern to a folder
- notes on a pattern

Important note

Save every pattern offered by the optimization software that can be used in practice after minor editing and fine-tuning.

Own custom patterns

For users who already have their own patterns ready and need to import them quickly and easily into the sawing patterns database, the OPTI-TIMB system also offers such a service. Sawing patterns in the form of an image (JPG or PNG) can be uploaded in the OWN CUSTOM PATTERN section. Before uploading an image, the user must enter all the basic information for the given pattern, so the pattern will be available in the sorting and searching. The OPTI-TIMB system cannot generate sawing coordinates for custom patterns saved as an image. If the user is interested in having their own patterns ready for export to a PLC, it is necessary to redesign them in the manual editor.



To save an image of a ready-made pattern, click the OWN CUSTOM PATTERN button in the OPTIMIZATION section.

Attach the image file to the form and add optional information, such as profit and yield, for a better overview.

Important note

The OPTI-TIMB system cannot process patterns in the form of an image and generate data such as profit, yield or sawing coordinates. We recommend redesigning these patterns in the manual editor, where the system will process, recalculate and solve all these shortcomings.

Pattern – sorting & classifying

The number of patterns stored in the online database per user can be very high. The maximum number is limited depending on the user program subscription. For maximum comfort, easy and fast search of sawing patterns, the OPTI-TIMB system supports sorting and classification in several ways.

★ Favorite Pattern

The Favorite pattern star can be used to mark those patterns that the user needs to find quickly and access easily.

Folders

In the Folders section, the user can prepare his own structure of groups and subgroups, to which he will assign individual patterns. He can thus create his own catalog of patterns divided according to his idea and his needs.

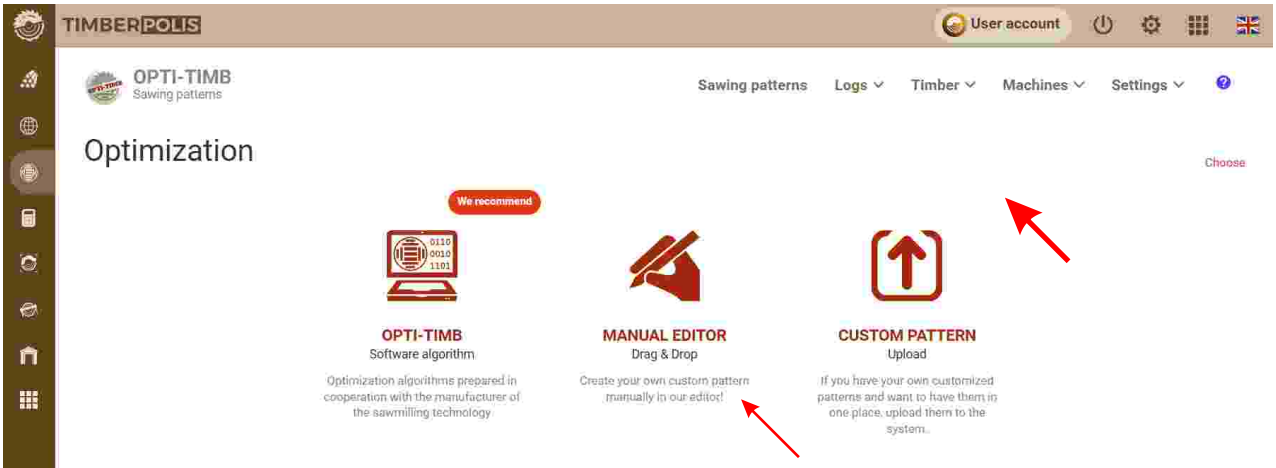
Important note

If the prepaid limit of the number of sawing patterns is reached, the system will no longer allow further generation. For a higher limit, it is necessary to increase the user program or contact the system provider.

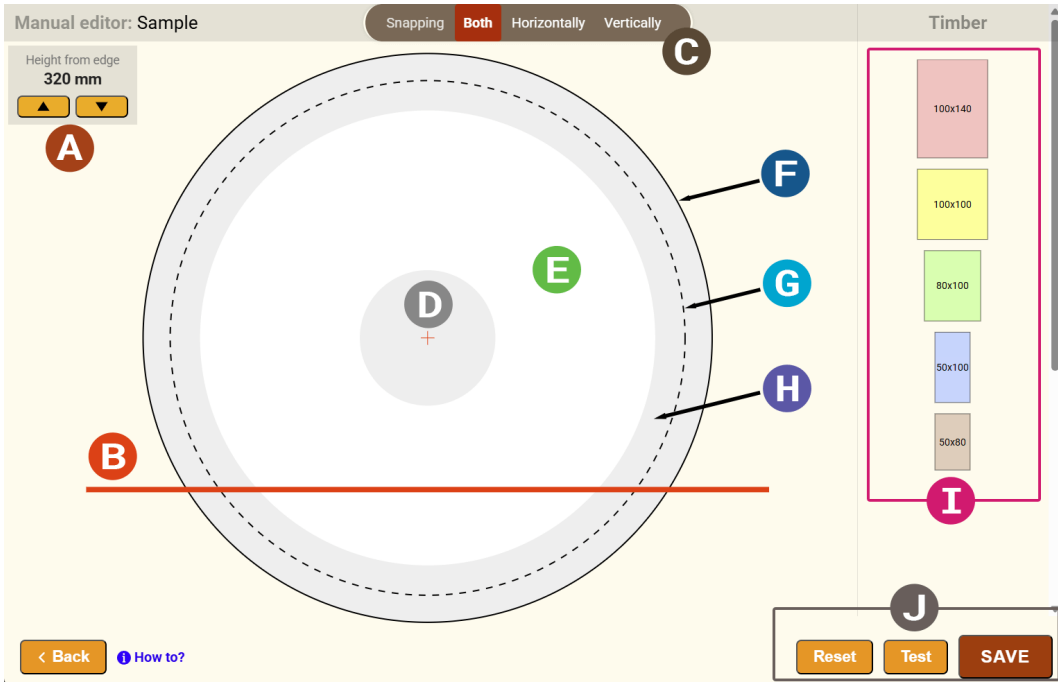
Manual editor I.

Video TUTORIAL

The manual editor is a useful tool that allows the user to create a pattern directly by placing timber items on a circular cross section of a log. It is also easy to edit saved patterns. Placing timber items works using the Drag & Drop system. After saving a pattern created in the manual editor, the OPTI-TIMB system processes all the data, creates a preview of the sawing process, recalculates the yield and profit and also prepares full-fledged sawing coordinates for export to a PLC.



To create a new pattern, click the MANUAL EDITOR button in the OPTIMIZATION section.



- A Baseline height setting
- B Baseline
- C Snapping
- D Heartwood
- E Sapwood
- F Big end diameter
- G Small end diameter
- H Waney-edge board zone
- I Položky reziva
- J Pattern processing buttons

Important note

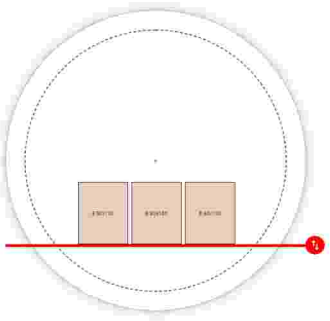
We recommend a large monitor for working comfortably with the manual editor. The manual editor does not yet support working on a tablet. Do not resize the browser window while working in the manual editor.

Manual editor II.

Video TUTORIAL

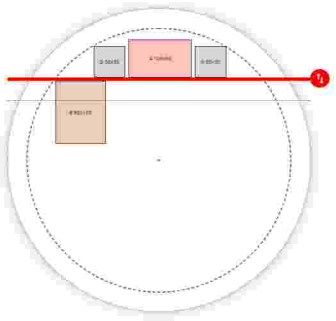
No log rotation

For patterns without log rotation, the red **baseline** represents the lower limit below which no timber can be placed. Its minimum height measured from below is determined by the type of assigned machine and its parameters – the min. cutting plane height above the clamping surface.



With log rotation

For timber rotation patterns, the placement of the baseline is arbitrary. The basic condition is that the base defined by the baseline after rotation is wide enough for the stable placement of the log. The thinner parallel red line shows the minimum thickness of the last board, so the timber in this area **must be higher and must cross this line**. The distance between the baseline and min. thickness is defined for a given machine in the parameter – min. thickness of the last board.



For explaining how to work in the manual editor, a visual demonstration is more suitable, so we have prepared a separate page with all video tutorials showing how to use the manual editor.You can find them at this address, or click the icon below.

https://www.timberpolis.com/help?topics=opti-timb

Video NÁVOD

Important note

After saving the pattern in the manual editor, the OPTI-TIMB system needs at least 1—5 minutes to process it and generate all subsequent data as a preview of the sawing process, sawing coordinates, etc...

Pattern export

After successfully creating or editing a sawing pattern, the OPTI-TIMB system offers several export methods:
1./ Transfer to a mobile application
2./ Print the pattern and complete summary
3./ Save a PDF file with the pattern and complete summary
4./ Save the sawing coordinates

Transfer to a mobile application

For easy and simple user access to saved sawing patterns anywhere and anytime, even without Internet access, the provider of the OPTI-TIMB system has created the mobile application for this purpose. All you have to do is to install the mobile application on your mobile device, log in and transfer data from the online database. More about the mobile application. A unique function of the mobile application is the export to a PLC saw. More about PLC.

Printing a pattern and a complete summary

The OPT-TIMB system also offers users a classic form of export – printing. There are several templates available, from printing only a pattern image to an almost complete summary of the pattern and its data.

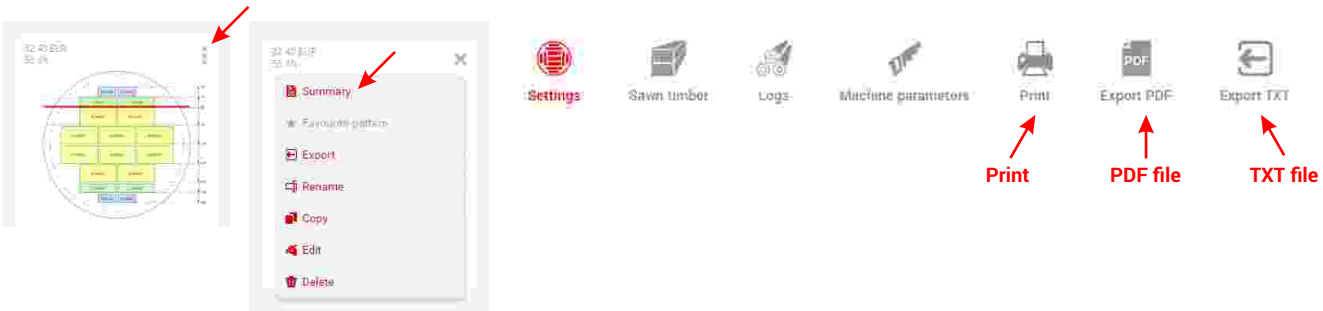
Saving a PDF file

As with printing, each pattern can be exported in multiple templates to a PDF. The PDF file can be saved on a computer, cloud storage or sent as an attachment in an e-mail message.

TXT file with data and coordinates

Complete export of positions – coordinates of timber items and sawing coordinates in the JSON format. This file also serves as a source file for checking data before sending it to a PLC.

Export procedure



Important note

Due to various technical reasons that may occur, the provider cannot guarantee permanent 100% access to the OPTI-TIMB system and stored data. Therefore, we recommend regularly backing up the sawing patterns off the online database and mobile application.

OPTI-TIMB mobile application

ANDROID APP ON Google play

The world's first mobile application for sawing patterns!

Modern technologies of the 21st century let us increasingly simplify and streamline work. The OPTI-TIMB system was the first in the world to create a mobile application for the most comfortable work and use of sawing patterns in practice. The most significant advantages of the application include:

- **Data transfer to a PLC for automatic sawing**
- **Immediate remote data transfer from the online database to the application**
- **Operation also in offline mode, without Internet access**

How it works

The user creates sawing patterns in the OPTI-TIMB system, which are automatically transferred to the online database.

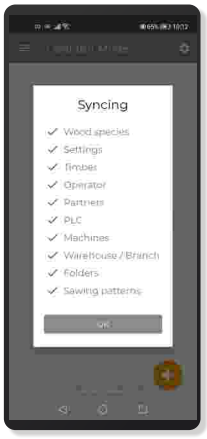
Each time the mobile application is opened, the sawing patterns and other data are transferred and are available to the operator.

The operator selects the most suitable sawing pattern based on the parameters of the log to be sawn. If the sawmill supports a PLC connection, the mobile application sends sawing coordinates and other data.

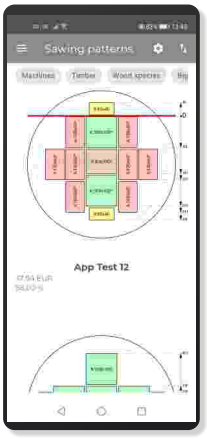
After installing the mobile application, it is necessary to log in with the **same login** details (e-mail, password) as when logging in to the online system.

After successful login to the application and in the case of active (prepaid) registration, the application is fully functional and the user can set it up according to his needs and start using it.

If the mobile device is connected to the Internet, the application will automatically download the latest data after switching on. To update the data immediately, it is necessary to start the synchronization in the menu, which downloads all new data to the



Synchronization process – data transfer from the online database to the mobile application can be directly monitored and in case of problems can also identify the erroneously transferred part.



After the successful transfer of all data from the online database, the application is fully functional even without Internet access.

Important note

When any change is made in the online system, it is not automatically transferred to the mobile application. To update the data in the mobile application, you need to initiate synchronization, which transfers all the new data once. The mobile application is only ready for the Android operating system. No iOS app is being planned for the future.

Mobile application – Tallies

Video TUTORIAL

One extremely interesting function of the OPTI-TIMB mobile application is the so-called tallies. Creating tallies allows you to have a summary of several sawing tasks/jobs/orders combined into one block – the tally. In other words, a tally provides **immediate (and, after completion, a summary) information and statistics on the condition with a large number of consecutive cuts.** There are a number of situations where such a tally can be useful and effective for operational needs.

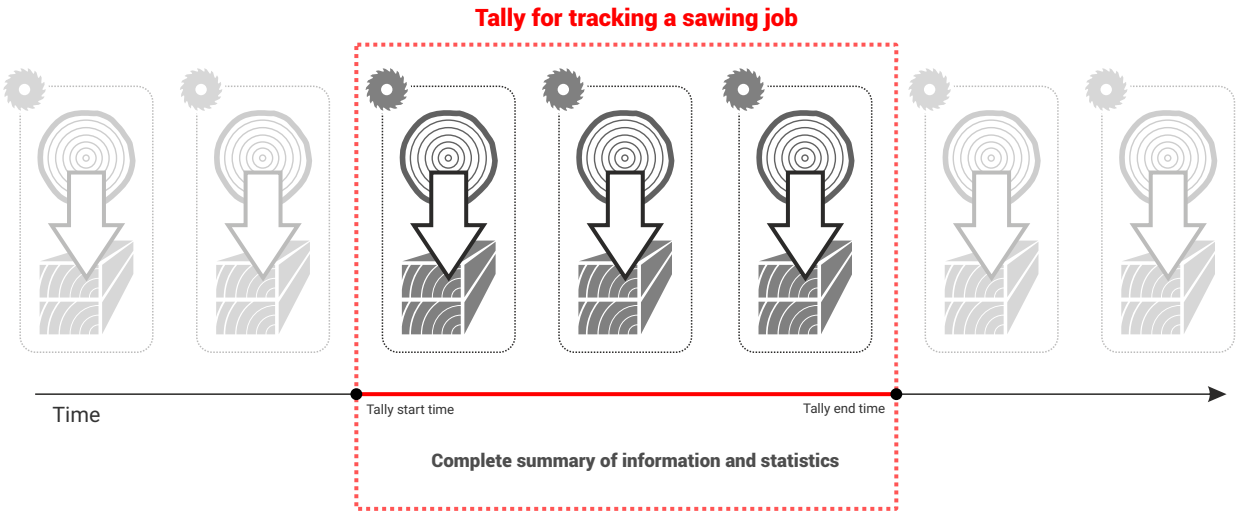
Examples of tally usage :

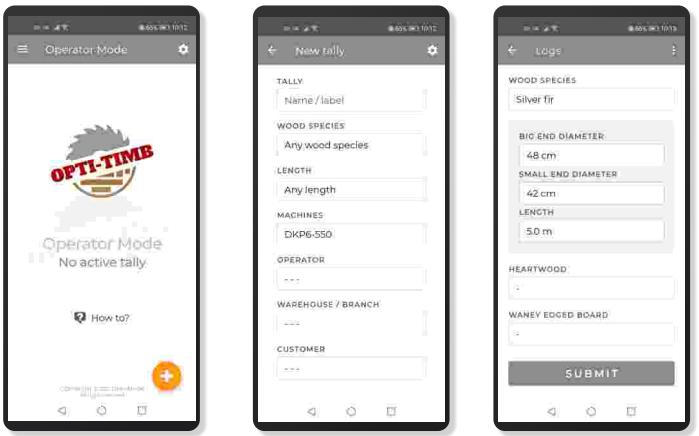
Monitoring the status of an order – task

- the operator does not have to manually recalculate the status of already performed sawings. The tally directly monitors statistical data, such as the volume of the log used, the number of units and the volume of timber items, etc.

Workplace performance monitoring

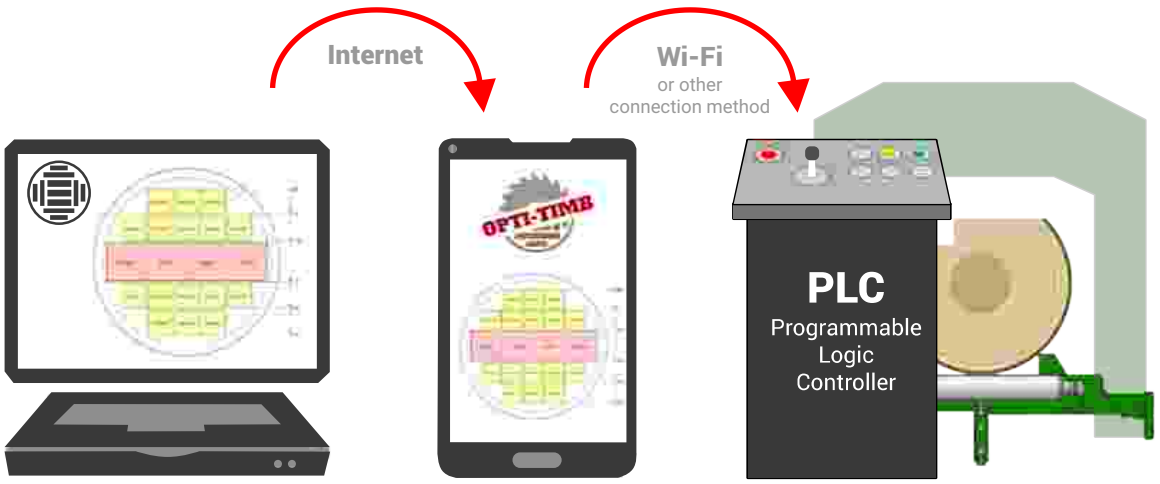
- direct performance monitoring at individual workplaces can be useful information for managers. In addition to the above-mentioned data, the system also offers other statistical data, such as recording duration (tasks, work), work efficiency, etc...





PLC (Programmable Logic Controller)

The OPTI-TIMB system does not only offer passive sawing optimization. The system can process a sawing pattern and export sawing coordinates and other necessary data to a PLC via a mobile application, which will enable automatic sawing. This significantly shortens the sawing time itself, as the sawmill automatically adjusts the positions of the saw blades after each pass.



Important note

If the user's circular saw supports a PLC that is not offered in the OPTI-TIMB system, after evaluation by technicians it is possible to add and to operate another (unlisted) type of PLC. However, this service is outside of the subscription services and is charged separately.

Checklist

Any pattern created in the OPTI-TIMB system must be considered only as a proposal and it is necessary to check every part of it – from input data, parameters, elements, settings, to export coordinates (etc.) to avoid any injury, danger, damage or loss. The checklist below is our recommendation of the basic safety steps that you need to go through or check as a minimum.

1

After creating the pattern, check :
- visually whether the pattern is sufficiently suitable for the sawing
- whether all entered data and settings for the pattern are in accordance with the requirements and technical parameters of the sawmill
- whether in the sawing preview (sawing simulation), the sawing is correct
- whether the sawing technological procedure is followed, without any possible collisions of moving machine parts with the sawn log
- manually all sawing coordinates in detail, whether there is any risk of the collision or impact of moving machine parts into a sawn log or other machine construction, damage to the machine or the endangering of workers

2

Before sawing, check :
- that there is no obstacle in the saw head where it is moving along the machine path and that all hydraulic or mechanical handling elements are below the minimum sawing level of the saw blades
- that the saw blades are correctly inserted and mounted
- that the saw blades are not visibly damaged
- that all safety features are functional and whether they are in place
- the cleanliness at the transmitting and receiving part of optical sensors
- the correct direction of the beam of the optical sensors
- that communication (pairing) between the communication display device (tablet, mobile phone) and the machine control system is correct and functional

3

Before working with a tablet (mobile phone), check that
- the tablet (mobile phone) is sufficiently charged and you have a charger available to charge the tablet (mobile phone) battery
- you have the OPTI-TIMB application properly installed
- you have synchronized all patterns, machine, log and timber data
- the two-way communication with the machine works is operational
- the selected pattern is created for the given machine and whether its parameters correspond to the machine parameters in the application settings

4

Before working on the machine and during sawing of the log according to the sawing pattern, check :
- - personally and visually whether the log to be sawn does not contain anything (e.g. unknown objects — stones in the bark, metal objects...) that could cause damage to property or to the health of workers
- whether the log ready for sawing is not damaged (e.g. whether it has no cracks), no other defects or irregularities preventing safe and correct sawing
- whether all protruding parts, such as e.g. the remaining parts of the branches or roots, have been removed before clamping the trunk
- personally and visually whether the trunk is correctly clamped – even after its possible rotation – and secured against unwanted movement during sawing
- whether the trunk parameters in the sawing pattern correspond to the trunk ready to saw
- whether you have all coordinates read in the machine
- whether when moving according to these coordinates empty (without sawing – off the trunk) the sawing will end correctly according to the sawing patters
- or whether due to the possible irregular shape of the trunk it will be possible to saw individual layers all the way to the end so that after the last step there will be no leftover in the layer. In such a case, make sure that this remaining piece can be safely cut out "manually" — by manually operating the machine
- whether the parameters of the rest of the trunk (especially the length, width and height of the trunk at the required points) were correctly measured before sawing and after turning the trunk and displayed on the machine

Important note

The OPTI-TIMB system and the created sawing patterns are provided "as is" without any warranty. Use at your own risk. The OPTI-TIMB provider is not responsible for any damage, hazards, injuries or loss that may happen during use. More in the DISCLAIMER section.

Questions & Answers

OPTI-TIMB is only for angle circular sawmills, but what about band saws?

Yes, we plan a similar optimization system for band saws in the future. For now, with some restrictions, you can use the Manual editor.

Is there also an OPTI-TIMB mobile application for iOS?

Sorry, we currently offer only an Android version and do not plan to support iOS in the near future.

Is it possible to connect a log scanner to the system?

We are working on this possibility and it is possible. However, the connection itself depends on the type of scanner, and since there are many types with different connections, we cannot guarantee 100% functionality for all of them.

I can't edit or delete any of the timber, log or machine items, why?

Items that are already used in patterns cannot be fully modified (except prices, for example) or deleted. The main reason is to keep valid and correct data in all patterns where the item was used. To edit or delete, it is necessary to delete all sawing patterns where that specific item was used.

Why can't I find the "Sawing process – Preview" button for sawing simulation for a newly generated pattern?

If the new pattern is correct, the sawing simulation (sawing coordinates and images) is prepared continuously and this may take a while, usually from 1 to 5 minutes, depending on the number of patterns waiting to be processed. So please wait a moment and refresh the page. It should then be fine.

Why did the yield of the pattern exceed 100% or its value is not correct?

Yes, this can happen when the user changes the values for a log item (such as diameter or length) and the log volume is not recalculated for the new values. The solution is simple ... check the volume of the log and adjust it directly (manually).

What happens to the profit value of already generated patterns after updating the price of logs or timber?

If the user changes the unit price of the log or timber, the system recalculates the profit for the patterns where the adjusted item was used. However, the reloading will not take place immediately, as the update only runs once every 24 hours.

Is it possible to assign certain timber items to a specific customer?

Yes, the system offers this option. Open the Timber section and in the Partners ⇒ Products submenu. For more information, please visit the Timber – Assignment to a partner chapter in this PDF file.

When generating a new pattern, is it possible to additionally assign an new item of timber, logs, machines, which is not yet entered in the system database?

Yes, it is possible. Open the missing item section in a new browser window. Add an item and restore the original window with the new pattern. Click here for a live preview.

The pattern generated by the system is almost ideal, but it still needs to be fine-tuned. It is possible?

Of course, this is possible. Just modify this pattern in the Manual Editor and save it. See Editing a pattern or click here for a video demo for more information.

None of the generated patterns suits me. How to proceed?

100% optimization does not exist and there can be quite a few reasons for generating unsatisfactory patterns. We first recommend checking all the data and settings for logs, timber and machines. See also the Troubleshooting section. If changes and fine-tuning does not help, contact us and we will find the problem together.

Questions & Answers II.

Can I export a newly generated pattern to a PLC immediately for sawing?

Definitely not, and we strongly recommend not doing this!!! Any pattern created in the OPTI-TIMB system must be considered only as a proposal; it is necessary to check each component in detail – from the input data, parameters, elements, settings, to output – sawing coordinates, etc. For this reason, see our recommendations in the Checklist section. At the same time, please note that the system operator is not liable for any injuries, hazards, damage or losses related to the use of the OPTI-TIMB system. See the Disclaimer for more information.

Are my data and created patterns backed up and archived?

Yes, the system is backed up regularly every 24 hours. However, as with other electronic systems, it is recommended to have your own independent backup, whether in electronic or printed form.

The PLC I use is not in the list of supported systems. Can you help me?

There are many PLC brands and types on the market, working in different ways, so we cannot guarantee 100% functionality for any. But we will do everything we can to make this happen. Please note that this service is not offered as standard and is charged using a separate price list.

Does the OPTI-TIMB mobile application need an Internet connection?

The OPTI-TIMB mobile application is designed so that permanent Internet access is not required. But for the initial synchronization and transfer of data and sawing patterns, the initial Internet connection is important.

I have my own cut patterns ready; how can I use them?

The OPTI-TIMB system also considered this possibility. If you have your own patterns in the form of an image, it is possible to attach them to a new pattern and this pattern will be included in the database. If you need to export such a pattern to a PLC or you need to have an overview of its yield and profit, it is necessary to redraw the pattern in the Manual Editor. Otherwise, its use will be limited only to the display of the image without the other services and features offered by OPTI-TIMB. More information.

What exactly does the Optimization Level (Timer) mean?

The OPTI-TIMB system processes a large amount of data and settings when generating sawing patterns, and this takes some time. The longer the time limit, the more space the application has for combining several optimization algorithms, which should be reflected in the quality of the output – the sawing patterns.

Why is the timber in the waney-edge zone in pattern not placed completely to the edge at the small end diameter?

If logs used in the pattern have a waney-edge board zone set, the system takes this zone into account even at the small end. However, for the sake of clarity of the pattern, this zone is not marked. For this reason, in the pattern view itself, the timber items are not located up to the edge at this end of the log.

When sawing one layer (at the end), is a reserve taken into account?

Yes, when setting the cut, it is possible to define the reserve to be taken into account for each layer. It is determined as a percentage of the diameter of the log at the big end. The default value is 5%, but you can change this value in the Settings (Optimization > Extra addition of the last cut in a row).

Is it possible to see the whole system somewhere with complete data for comparison and as a template?

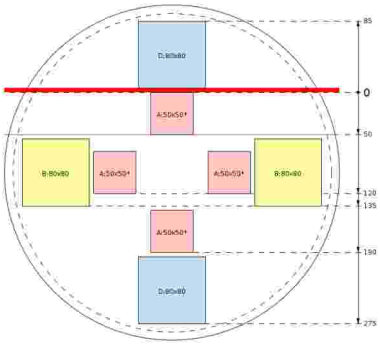
Yes, of course, this is possible. If you are logged in to the system, log out. On the home page, find the button for the DEMO version and click here. The system redirects you to the demo version, where you will find complete examples of the OPTI-TIMB system with data and ready-made patterns. If you have trouble setting up your account, you can use this demo account as a template.

Video tutorials

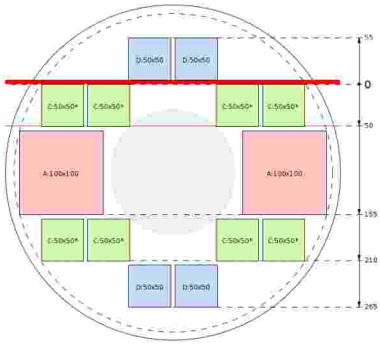
We have prepared a dedicated page with all the video tutorials that you might find useful.You can find them at this address or click the icon below.

https://www.timberpolis.com/help?topics=opti-timb

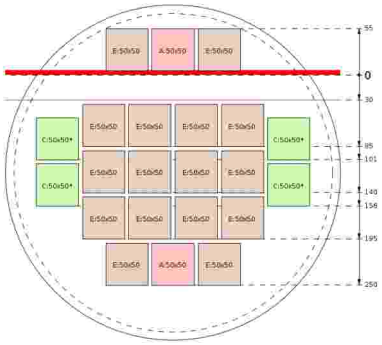
Troubleshooting



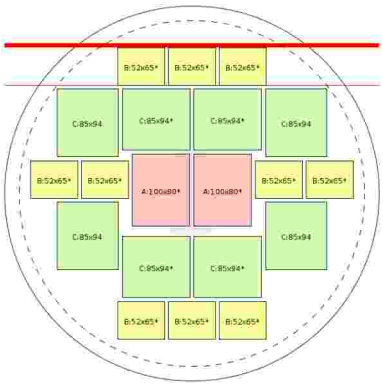
The pattern has only the quarter and plain-sawn types of timber assigned. Please assign other types, especially Semi & Rift-sawn. If necessary, change the angle threshold. For more, visit the sections: Timber - types or Timber – quarter & plain-sawn



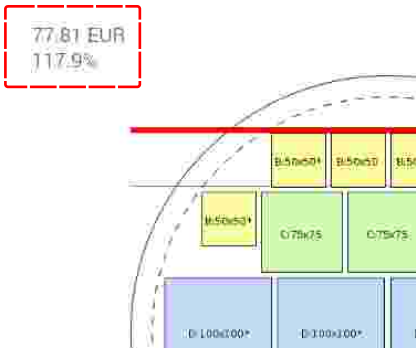
In the pattern, a log is assigned that contains heartwood, but no center board timber type is assigned. For more visit: Timber - types or Logs - heartwood



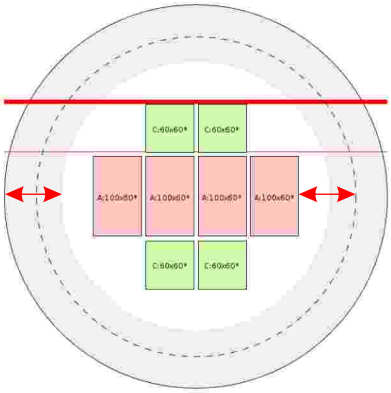
If the zone of the last board is empty, one of the reasons may be that no timber has the last board zone attribute checked. Check this property for at least one of the timbers. The second reason is that no timber has enough size to be placed in this zone. This means that the thickness (or width) is smaller than the min. thickness of the last board for that specific machine.



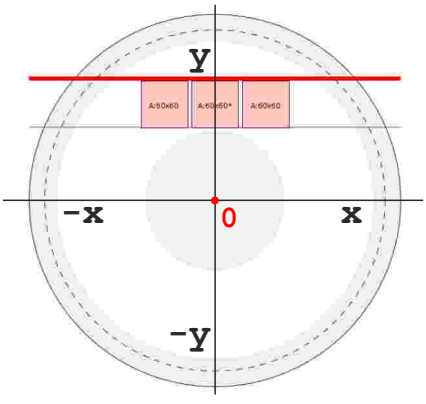
If the system does not generate patterns with sufficient optimization, try to increase the optimization time or adjust the dimensions of the timber items so that they can be combined with each other. For more information, see: Timber - dimensions



The yield exceeds 100%. The user changed the dimensions of the log (diameter or length) but the volume was not recalculated. Check the volume for the log item.



For the sake of clarity, the waney-edge zone in the figure is graphically marked only at the big end. However, in the patterns, the system takes the edge zone into account even at the small end, so the timber is offset from the circle indicating a small diameter of the log.



The center point of the X and Y axes for defining the sawing coordinates is defined at the center of the log.

Contact

System provider

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Web :
www.timberpolis.com

Для версии на **русском** языке нажмите тут

Pre **slovenskú** verziu kliknite tu

Important note

Disclaimer

There are inherent risks when using the OPTI-TIMB system (and its components). The provider and the author hereby warn you to fully understand the potential risks before using the system. The OPTI-TIMB system and the created sawing patterns are provided “as is” without any warranty, express or implied. Sawing patterns created in the OPTI-TIMB system must only be considered as proposals. Use them at your own risk, without any guarantees from the provider. Use of the OPTI-TIMB System is at your sole discretion, risk and with your consent, and you are solely responsible for any damage, injury, threat, injury, loss, financial loss or loss of data resulting from such activities. You are solely responsible for the security, protection, backup of data and equipment used in connection with any part of the OPTI-TIMB system. No advice or information, whether oral or written, obtained from us or this website constitutes a guarantee. The OPTI-TIMB provider may change the OPTI-TIMB system or the documentation made available on its website at any time without prior notice, or the documentation may be out of date. The OPTI-TIMB system provider does not undertake to update these materials. The OPTI-TIMB system provider does not accept responsibility for errors or omissions in the system or in the documentation available on its website. In no event shall the OPTI-TIMB provider be liable to you or any third party for any punitive, incidental, indirect or consequential damages, damages of any kind, or any damages incurred in connection with the use of this system or during sawing. We warn you strongly – no liability for damages! The provider of the OPTI-TIMB system and the author expressly disclaim any warranty for the OPTI-TIMB system. The OPTI-TIMB System and all related components, functions, services and documentation are provided “as is”, without any warranty, express or implied, including (but not limited to) implied warranties or merchantability, fitness for a particular purpose or non-infringement. The entire risk arising from the use or performance of the OPTI-TIMB system and connected components remains with you.