

Quick user guide

OPTIMIK 4



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www.optimik.com

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Introduction

Optimik 4 represents the third generation of a program, the development of which began as early as in 1999. From the original single-purpose program for the calculation of cutting plans, it has turned into a universal solution, used by craftsmen, small firms and large enterprises. In addition to its basic task (the creation of cutting plans for panel and bar materials), the program allows recording and processing offers, jobs, various types of documents (documentary proofs), inventories, and it includes many other functions and options that can be used in everyday real life.

Compared to version 3, it contains many new features:

- a reworked optimization algorithm
- creation of offers with fast calculation of cutting plans
- a more sophisticated price calculation of offers and jobs
- possibility to change product parameters directly in the offer or job
- use of unrestricted formulas in product parameters
- an unlimited number of materials and operations in each part
- multilayer parts and shaped parts
- adjustable automatic accessories for parts
- creation of packages for parts of products in a job
- production operations with individual prices, expected production time, supplementary material and workplace
- production planning and preparation
- production monitoring by means of supplementary modules of the "Assistant" type
- quick reservation and issue of material for production
- sub-inventories with an individual code, price, weight and location in the warehouse
- records of decors (panel materials, edging strips ...) and their codes at individual manufacturers
- adjustable price lists for automatic calculation of sales prices for selected business partners / stock items
- documents connected to the job
- record-keeping of reimbursements of documents and other payments
- encrypted storage of business partner data in a database (GDPR)
- unification and clarification of database item names for print reports, import and export
- advanced import and export options, editable templates
- clearer user interface and much more ...

Program installation

The program does not require much computer performance (depending on the extent of data) and it can be installed and used on a regular relatively new computer with a Windows (7, 8, 10) operating system and a monitor with a resolution of at least 1,600 x 1,200 pixels.

You can install the program by running the installation file, which you can download from the www.optimik.com website. After selecting the language and clicking the "Next" button, the License Contract will appear. Please read it, and if you agree with it, confirm the option "I agree with the terms and conditions of the License Contract" and click on the "Next" button. If necessary, you can change the installation folder (the program is installed in C:\RK Software\Optimik 4 by default) and start the installation by clicking on the "Next" button. After copying the necessary files to the installation folder, click the "Finish" button to complete the installation process.

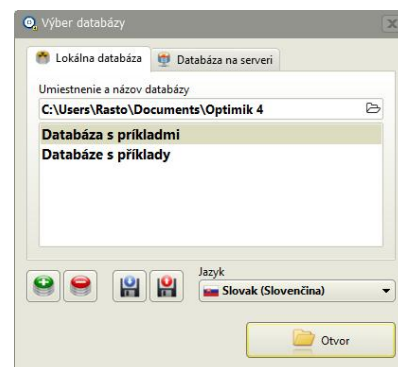
Starting the program

To start the program, click on the "OPTIMIK 4" icon on the desktop. An initial window will appear, in which you can select the desired database. If you do not have one yet, you can create a new blank one there.

- ❖ *The database is a file that contains all your data that you have entered or are going to enter into the program. With increasing time and data, the database will become more and more valuable for you, so do not forget to back it up regularly on external storages (other computers, disks, etc.)! In the event of a computer failure or theft, you will not lose the most valuable thing.*

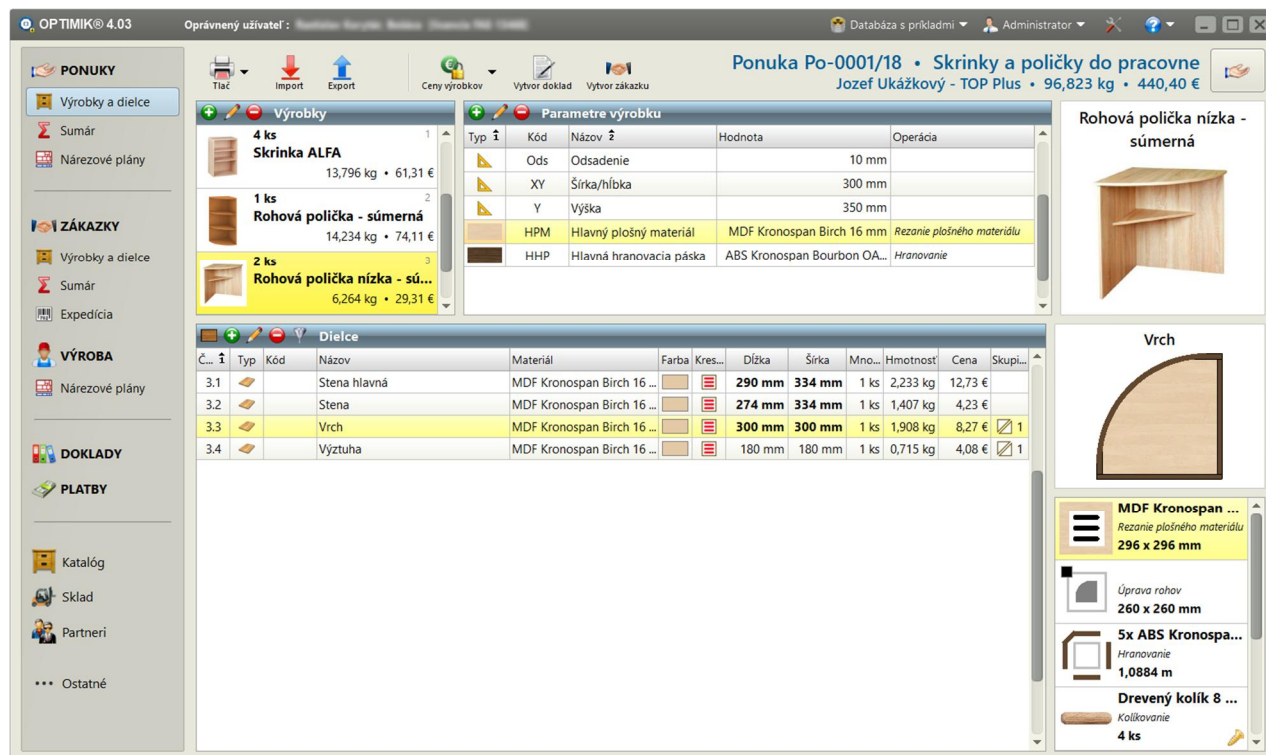
Usually, a single database is sufficient to work with the program (in this case, in Optimik settings, you can choose that it be opened automatically at start-up, without displaying this initial window). You would use multiple databases, for example, if you have multiple companies and you want to keep records of each one independently.

If you need more than one user to connect to the database at the same time, it is necessary to copy it to the server (see the "Database on server" manual).



Main window

In the left part of the window, there is a panel with navigation buttons. Clicking on the selected button changes the content in the right part of the main window. Catalogue, Warehouse and Partners are displayed in separate windows. You can select all other records in the local menu by clicking on the Other button. At the top bar of the window (on the right) there are buttons for administration of the database, users, program settings and help.



Program control

Basic functions for working with data

In the program, almost all data are displayed in tables. Thus, all basic functions for working with data are concentrated in them. The buttons of the most used functions are located in the title of each table, but it is also possible to start them by pressing the specified key. You will also find all functions in a separate menu, which is displayed after right-clicking on the table.

Function	Button, key		Description of the function
Add		+ Insert	Adding a new record, the data is entered in a separate window.
Duplicate		Ctrl + Ctrl+Insert	Creation of copy of the current record and subsequent editing in a separate window.
Fix		*, Enter double-click	Editing of the current record, the data is edited in a separate window.
Delete		- Delete	Deletion of the current record.
Select		Enter double-click	The button for selecting a record is displayed only if it is a window/table from which we select data for another record (e.g. if, when entering a part, we select its material from the warehouse). Then the table is in the so-called <i>selection mode</i> , i.e. the Enter key (or double-click) selects the current record and closes the window. In this mode, record editing can also be performed, but only with a button or menu.
Filter			When the filter is switched on, only the data that meets the entered filter conditions will remain displayed in the table.
Attachments			In a separate window, you can enter attachments (text, image, link to an external file) for the current record. An icon in the table indicates an entry that has at least one attachment. In addition, you will find information about the date, time, and the user who has created or edited this record.
Table settings			Here you can set the visibility and order of the columns in the table. If necessary, it is also possible to "lock" the table here, which makes it impossible to change the order of the columns or its order directly, using the mouse.
Restore original settings			Here you can set the default order and visibility of table columns

Data sorting

In tables, it is usually possible to sort data according to any selected column (columns). Numerical data (such as weight, price, etc.) are sorted in the table according to their value; other data (including document and job numbers) are sorted alphabetically. You can select a column by clicking on its caption. The selected column is indicated by an arrow with a number in the right part of the caption. The default order is the ascending order. To change it to descending, click on the caption again - the order will change and the arrow will rotate. To sort the table by multiple columns at once, click on each column's caption while holding down the Ctrl key.

Kód	Názov ↑	MJ ↕	Cena ↕
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Search



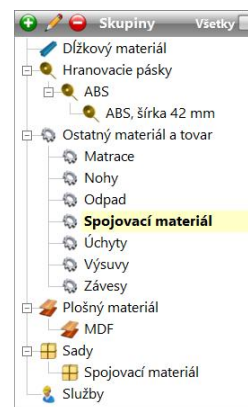
A text search function is available in selected modules (warehouse, business partners). Enter the required text in the edit field and click on the button to start the search for this text. You can enter only a part of the text, and the size of the letters doesn't matter either. After entering the text, the program searches from the beginning all the text data of each record in the table and marks the row in which the text was found. You can continue searching for other records by re-clicking the button or by pressing the F3 key (the function will start searching the table again from the beginning only after another text has been entered). If the program does not find such (or another such) record, an audible warning will sound.

In some tables (e.g. business partners, stock items, specifications ...), a quick search is also available by simply pressing the keys corresponding to the name of the searched item.

Tree structure

Records of stock groups (as well as product groups, business partners, etc.) are kept in the form of what is known as a tree structure. This means that the individual items are not at the same level, but each item can be superior to another one and that other one to another one, thus creating an image of a branched tree (folders on your computer's disk, for example, are organized in a similar way).

After starting the program, you can only see the top-level records in the tree structure. There is a [+] icon next to them if the record contains other records. By clicking on it, these records will be "expanded" and the icon will change to [-], you can use it to "collapse" the records again. Each new group is automatically assigned to the current group. If you want the group to be separate (so that it is not subordinate to any other), confirm the "Move to level 1" option when creating or editing it. However, you can move a group (including all its "subgroups") to another group at any time using the mouse while holding down the Ctrl key.



Basic description

It is up to you to what extent you want to use OPTIMIK. Whether you only need it for a simple calculation of the cutting plan, **but** you want a complete record-keeping and overview of production and inventory movements. Through the Offers and Jobs modules, you choose the path that is closest to you. Both of these modules allow you to keep records of basic data, add products to them together with a list of their parts, or automatically calculate a list of required material. However, they differ in the following characteristics:

Description	OFFER	JOB
Instantaneous calculation of the cutting plan	YES	NO - to calculate the cutting plan, it is necessary to first send the parts from the job to production (the production batch)
Parts from several offers/jobs in a joint cutting plan	NO	YES
Fast editing of parts which are already in the cutting plan	YES	NO – the parts have to be cancelled from the production batch first
Reservation and issue of material from the warehouse, dispatch	NO	YES

Therefore, you can decide whether you will work with offers, jobs, or both in the program.

The procedure for submitting tenders and jobs

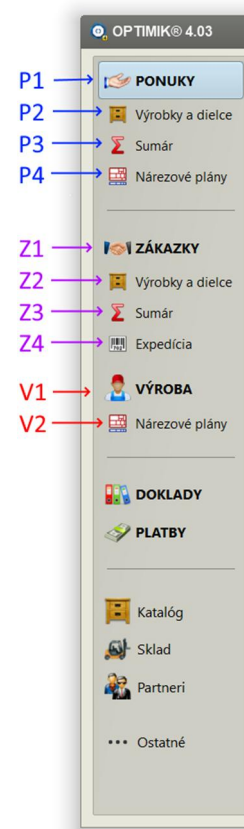
- P1. In the OFFERS module, create a new offer for a potential customer.
- P2. Switch to the Products and parts module and enter all the products that the customer requires. Each product can consist of an unlimited number of panel, bar and other parts; each part can contain an unlimited number of operations and materials.
- P3. In the Summary module, then find an automatically generated short list of all operations and materials. Of course, the quantity, weight, cost, price and profit is also calculated automatically. At the same time, this data is automatically recalculated for each part, product as well as for the entire offer.
- P4. In the Cutting plans module, you can easily and efficiently calculate cutting plans for all panel and bar materials in your offer. The exact over-consumption and price of cutting is then optionally automatically included in the price of these materials (and thus also the price of parts, products and the entire offer).

After accepting the offer from the customer, you can automatically create the job from it.

- Z1. In the JOBS module, you will find a job created from our offer. It is possible to modify the job or create a new one in a way similar to that in which an offer is created.
- Z2. The Products and parts module is similar as in the case of offers. In addition, there is only the possibility to send products or individual parts for production.
- Z3. The Summary module is also similar as in the case of offers, but in addition there is information about what is being produced and what has already been produced.
- Z4. In the Dispatch module, you can create packages for parts of each product. This will be used mainly by firms supplying their products in a disassembled state. In addition, it is possible to monitor how many products have already been stated on the documents related to this contract, and thus find out, for example, which products have not yet been invoiced, checked or dispatched. This is especially useful for large jobs, which are implemented gradually. The status of this "documentation" is also automatically displayed in the parts and jobs table.

Unlike for offers, it is not possible to calculate cutting plans directly for a job. Parts from several jobs are combined into what is called production batches, and joint cutting plans are calculated for them only. This means that there can be parts from several jobs in one production batch, while each job can also send its parts to several production batches exactly according to your needs. However, the rule is that all operations and materials of one part must be in the same production batch.

- V1. An overview of all production batches can be found in the PRODUCTION module. Each production batch contains a summary of operations, materials and parts from jobs.
- V2. In the Cutting plans module, you can easily and efficiently calculate cutting plans for all panel and bar materials of a production batch.



Other parts of the program

Using other buttons, you may display other parts of the program:

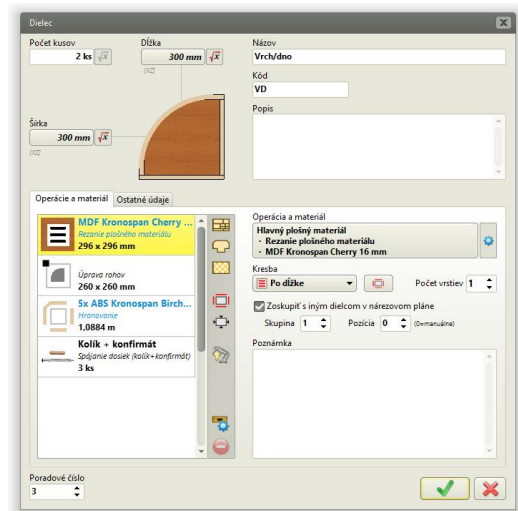
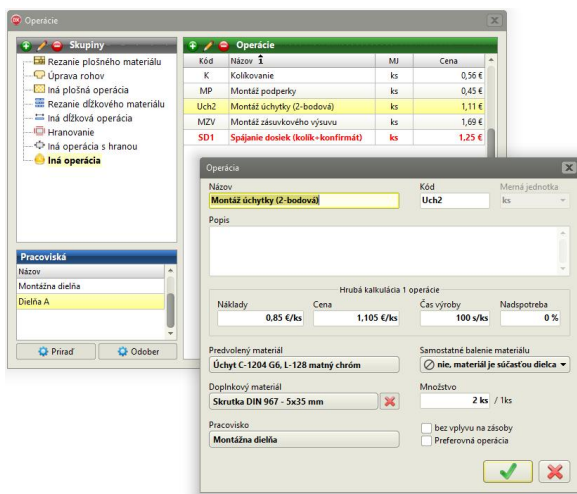
1. DOCUMENTS - creation and listing of invoices, orders, issue cards and other types of documents (i.e. documentary proofs). It is possible to enter an unlimited number of items into each document (also from the warehouse), while the calculation of the total price of the document and a possible change in the stock level is performed automatically. For selected types of documents, it is also possible to monitor reimbursements thereof.
2. PAYMENTS - in this module, it is possible to keep records of all your cash inflows and cash outflows (also in different currencies and on different accounts). Payments can also be linked to documents (reimbursements), with Optimik automatically calculating the remaining amount due for each document. Cash inflows and cash outflows can also be categorized, and Optimik automatically calculates their total amounts and displays a graphical overview for individual months.
3. Catalogue - here you can create a one-time list of all your products, including all their parameters, parts, operations and materials. The advantage is that you can quickly insert these products into your offers and jobs at any time without needing to enter the data manually.
4. Warehouse - a list of your entire product range, including formats and offcuts of panel and bar materials. Inventories and their value are monitored and calculated automatically (for example, if you add an item to an invoice, its inventory level will be automatically reduced). For each stock item, it is possible to create an unlimited number of what is called sub-inventories (the same stock item, differing only in size, location in warehouse, expiration, etc.)
5. Partners - a list of your business partners, including a historical overview of their contact and company details
6. Other - in this section you will find a list of other auxiliary records: Operations, Workplaces, Product parameters, Automatic accessories, Cutting plan calculation parameters, Basic data about your firm, Currencies, VAT rates, Bank accounts and cash, Price lists, Pictures, Decors, Document texts, Dictionary for documents, Countries and municipalities, Specifications ...

Parts, operations and material

Optimik approaches in a new way also to the materials (components) that are contained in a part. In fact, the information on each material is inextricably linked to the information on the operation to be carried out on that material. So e.g. the *ABS Beech* material is associated with the *Edging* operation, the *Handle* material is associated with the *Handle mounting* operation, etc.

Each part may contain an unlimited number of these operations and materials, which allows defining e.g. multilayer glued parts, parts with truncated corners, or parts with supplements (fittings, hardware, etc.).

Optimik then automatically reads and groups all this data. You can view the grouped records at any time in the Summary, and the operations grouped in this way are also sent to production. The advantage of this solution is a much more accurate price calculation.



You can find the list of operations in the Operations window (button Other - Operations).

Optimik allows you to define any number of operations and you can choose from 8 types:

1. Cutting of panel material - for panel cutting plans (m²)
2. Adaptation of corners – parts shaping by cutting their corners (m)
3. Another panel operation - e.g. painting, gluing (m²)
4. Cutting of bar material - for bar cutting plans (m)
5. Another bar operation - e.g. galvanizing of a steel pipe (m)
6. Edging - gluing of the edging strip (m)
7. Other edge operation - e.g. bevelling of a glass edge (m)
8. Another operation - e.g. mounting of a handle (any unit of measurement)

You can create several groups for all these types, thereby clearly organizing all the operations that you use in the production process in your company. Each operation can contain information on unit costs, the price, approximate production time, percentage overconsumption. For each operation, you can also predefine the most frequently used material that will be associated with it, as well as the workplace where this operation will usually be performed.

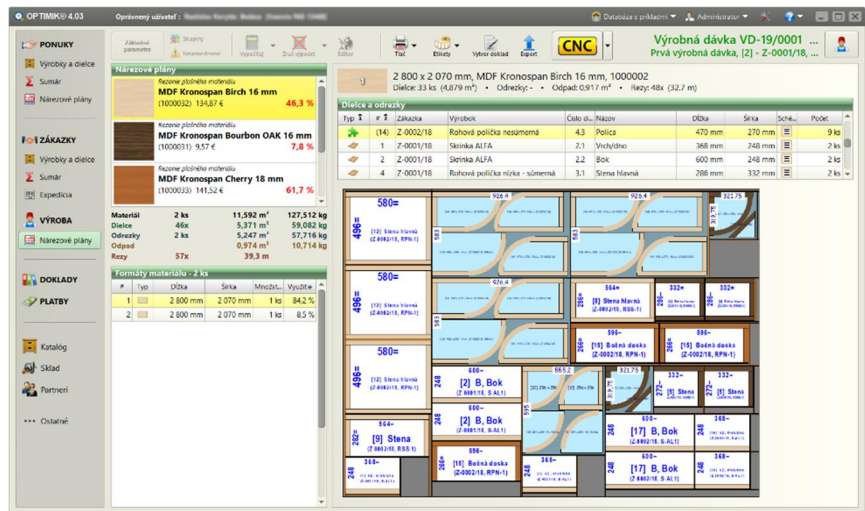
If necessary, you can also assign additional material (and its quantity) to the operation, which will always be automatically associated with it, without the need for a manual entry. E.g. the operation *Handle mounting* will always include the supplementary material *Screw 5x35 - 2pcs*. If you need to add more supplementary materials to the operation, create a kit from these materials in the warehouse (e.g. the kit *Screw + Washer*) and assign the kit here.

Cutting plans

In this module, you will find a list of all panel and bar materials of the current offer or production batch. You can calculate a cutting plan for each of them individually or in groups.

You can influence the result of the calculation to a large extent by setting the corresponding parameters and you can save the whole group of these parameters and use them very quickly in the future.

To start the calculation with the selection of parameters, click on the first button on the bar (top left). A window with a list of parameter groups will appear where you can select one of the existing ones or create a new one.



Parametre
Material
Odrezky a odpad

Identifikačný popis

Základné parametre

Rez:

Šírka rezu: **4,8 mm**

Max. dĺžka: **3000 mm**

Max. hrúbka: **48 mm**

Odrezateľné minimum: **3 mm**

Preferencie:

Rýchlejšie rezanie

Kompaktnejšie odrezky

Uprednostniť menšie formáty

Ignorovať kazý

Max. počet súčasne rezaných formátov:

Fixný 1 ks

Vypočítaný z hrúbky materiálu a rezu

Náklady na: 1 rez: **0,50 €** 1 m rezania: **0,80 €** 1 dielec: **0,00 €**

Cena za: **0,63 €** **1,00 €** **0,00 €**

Príprava 1 rezu: **10 s**

Rýchlosť rezania: **10 m/min**

Rozdeliť plán dlhší ako: **5000 mm**

Východiskový bod: **vľavo hore**

Maximálny čas prepočtu: **0 s**

Pila: **[neurčená pila]**

Orezy:

Po otočení: **0 mm**

Dielec zväčšiť o: **0 mm**

Medzera medzi pásmi: **0 mm**

Spôsob rozrezania: **Lubovolný**

In addition to the cutting parameters, you can select the material formats to be used in the calculation on the **"Material"** tab. There are three options to choose from:

1. Material from the customer - select this option if the customer only requests that his own material be cut. The list of such formats can be edited at any time and such formats will not be included in the price of the cutting plan.
2. Material from the warehouse - if the customer also buys material from you, select this option. The list of such formats cannot be edited, but it is loaded automatically from the warehouse according to the real inventory status.
3. Standard formats - enter the formats here that will be used in the calculation if no other formats are available (as stated above).

The program then automatically uses the formats in this order during the calculation. If several different formats are available, the program itself selects the most suitable one.

On the **"Offcuts and waste"** tab, enter the dimensions of the smallest offcuts that are still usable for you. The program will then try to place the parts in the plan so that as much of the waste as possible is grouped into usable offcuts. Do not

enter too small dimensions here - then several relatively small offcuts may be formed, but not too large either - then it may not be possible to combine the waste into such large offcuts and the waste will then remain unusable.

Calculation

Optimik 4 contains a new type of optimization algorithm that attempts to achieve a satisfactory result as quickly as possible. Later, it tries to fine-tune and improve this result, with you being also able to set the maximum duration of such a conversion in the parameters.

During the calculation, a small window with the progress of the calculation is displayed. After calculating the first result, the percentage value of the achieved material usage is displayed here. If necessary, you do not have to wait for the complete conversion to be completed, but you may click on the "Confirm" button to accept the achieved value even earlier.

