CutLog^{tm}

Module: Production planning

User guide

http://www.cutlog.com

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User guide

Content

1. Introduction

Production planning (PP) is additional module to CutLog™. For details about CutLog's functionality please refer to CutLog user guide.

2. Module – production planning

This module is available as standalone additional functionality of CutLog software. For working with PP is necessary to have CutLog already installed.

In case, that you already have bought CutLog, it is necessary to have new software license key. License for PP is not transferrable from one CutLog license to other.

3. About

This module is used for planning of sawing of sawlog to fulfill customer orders. Order can be also for example year plan of production, but in this case we use term ‘order’.

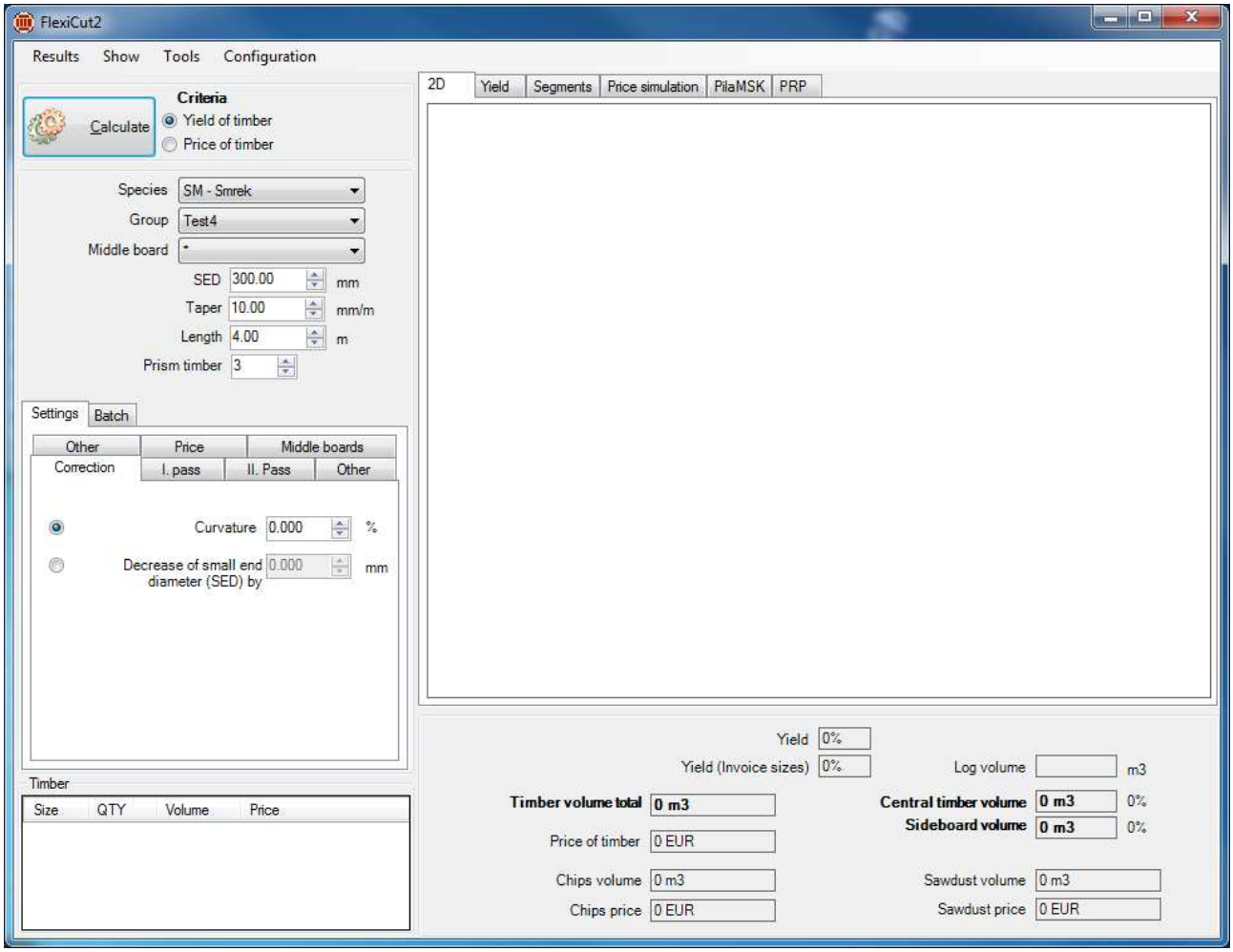
In first step is recommended to enter sizes of timber from order into system – function ‘*products size and price*’, because it will be necessary to create sawing patterns for all requested timbers and input diameters of sawlog.

Of course customers and supplier has to be entered (at least one), because order is joined to customer.

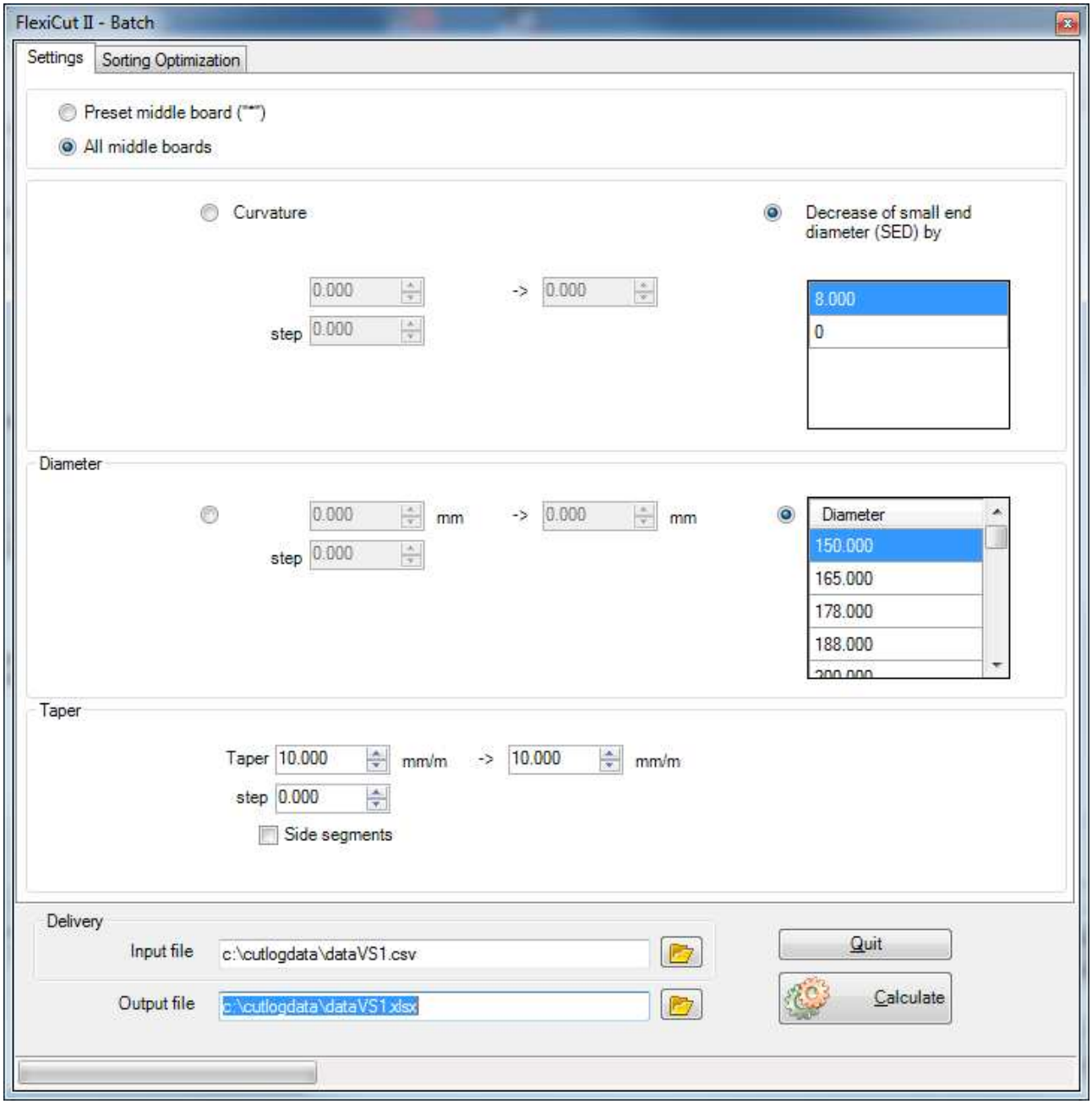
4. Precalculation

Before PP itself, is necessary to prepare appropriate data. Input data for PP are prepared in optimization function **FlexiCut2**.

In first step is necessary to set parameters in FlexiCut2 (the same way, you are working every day). For example:



Then choose menu “Tools/Batch”. It runs function for batch optimization:



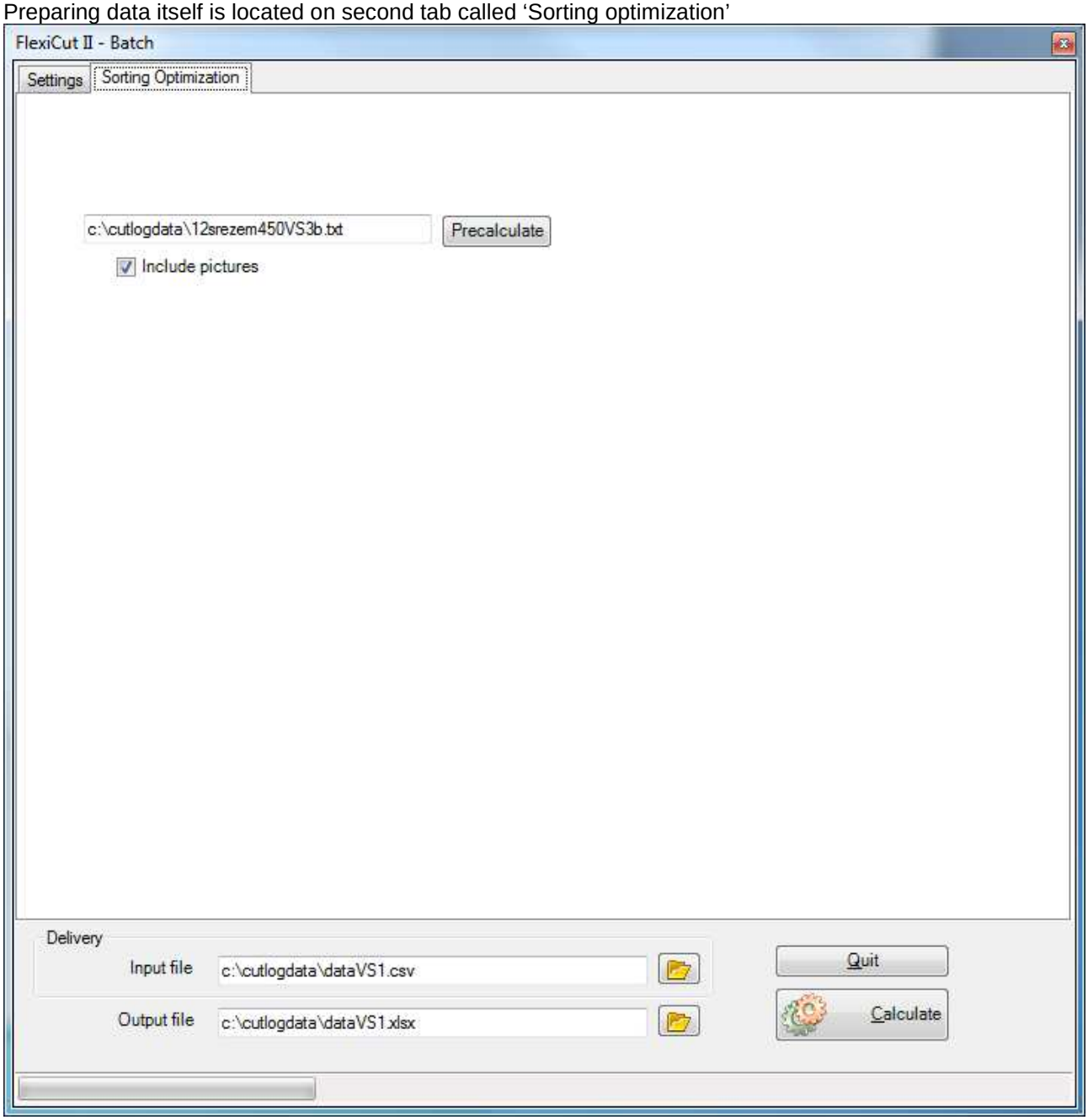
We have set some diameters for calculation. But we can also set interval of diameters. Also Curvature and taper value can have intervals but it is not used such often.

Here we can choose the way, how middle boards will be selected into results:

„Preset middle board“ – optimization will be run only on board selected in main FlexiCut2 screen. So it can be either „*“ for the best middle board or selected.

„All middle boards“ into batch process will be added all middle boards also. It means, that optimization will be made for each middle board separately for combination *diameter-curvature-taper*. **This choice is reccomended.**

Preparing data itself is located on second tab called ‘Sorting optimization’

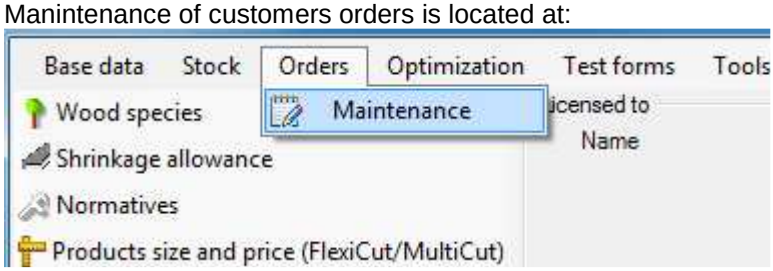


Include pictures – ich checked then into output file also will be included picture with sawing pattern for each log. It makes size of output file several times bigger and also calculation takes more time, because of generation of pictures.

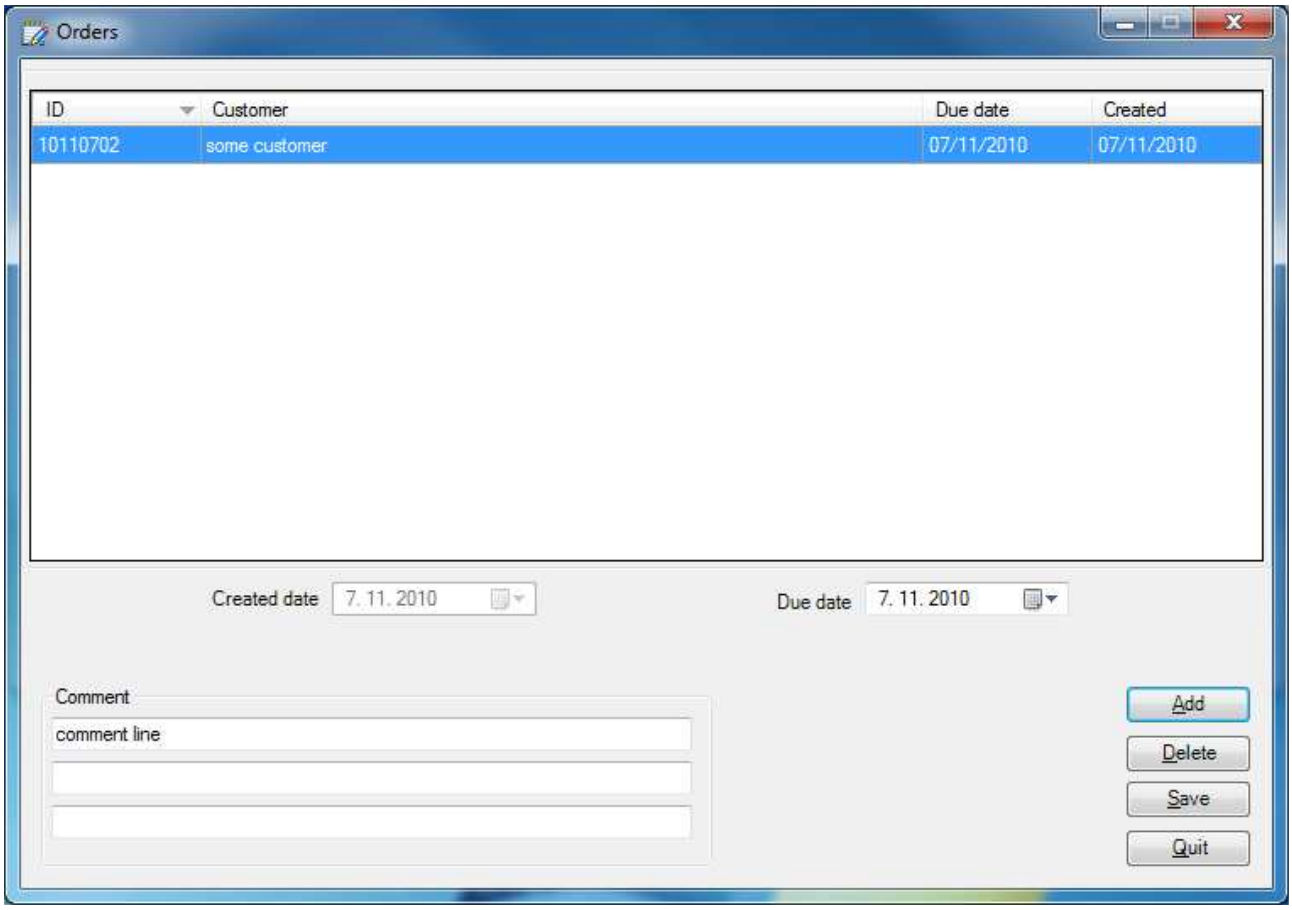
On the second tab we just set output filename and press „Precalculate” button. Resulted file is input file into production planning function.

5. Orders

Manintenance of customers orders is located at:



After choosing we have screen for order maintenance:



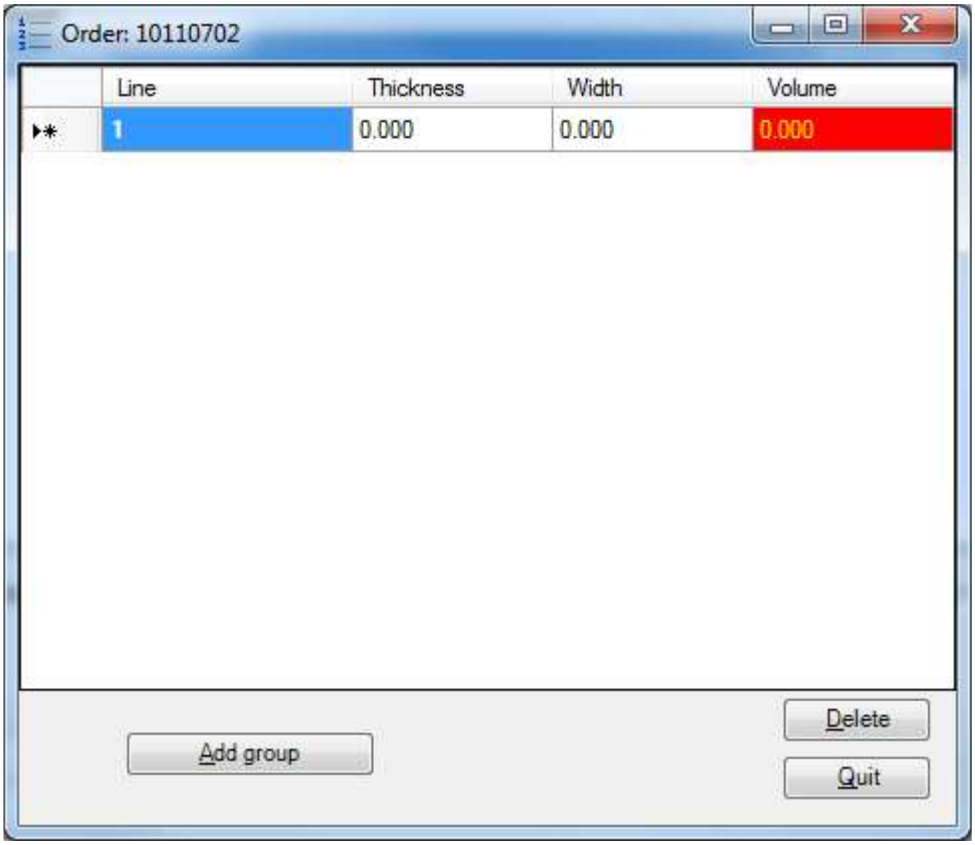
We see some order in screen above.
ID – unique ID of order, which has form:
YYMMDDxx

- YY – last two digits of year
- MM – month
- DD – day
- xx – sequence number of order

Customer – customer on which is order linked
Created – date of order creation
Due date – due date of order
Comment – any text
New order can be added via button “Add” and deleted via “Delete” button.

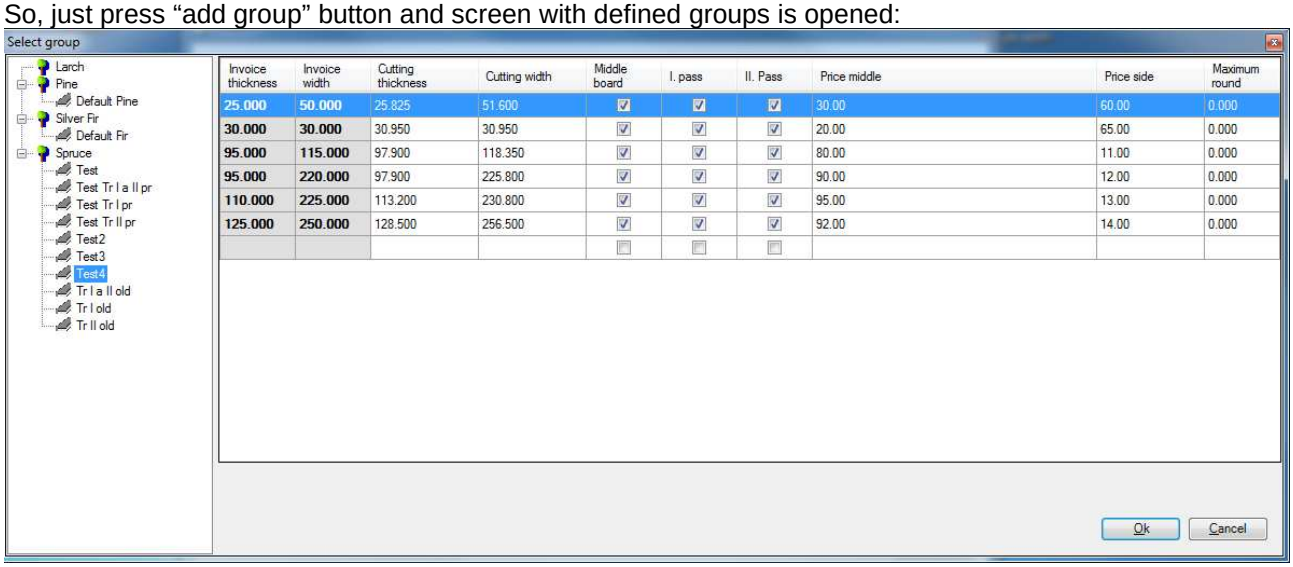
After changing some value of order (like comment for example) has to be pressed button “save” to store changes.

Order detail
By doubleclick on order is shown window with details of particular order.



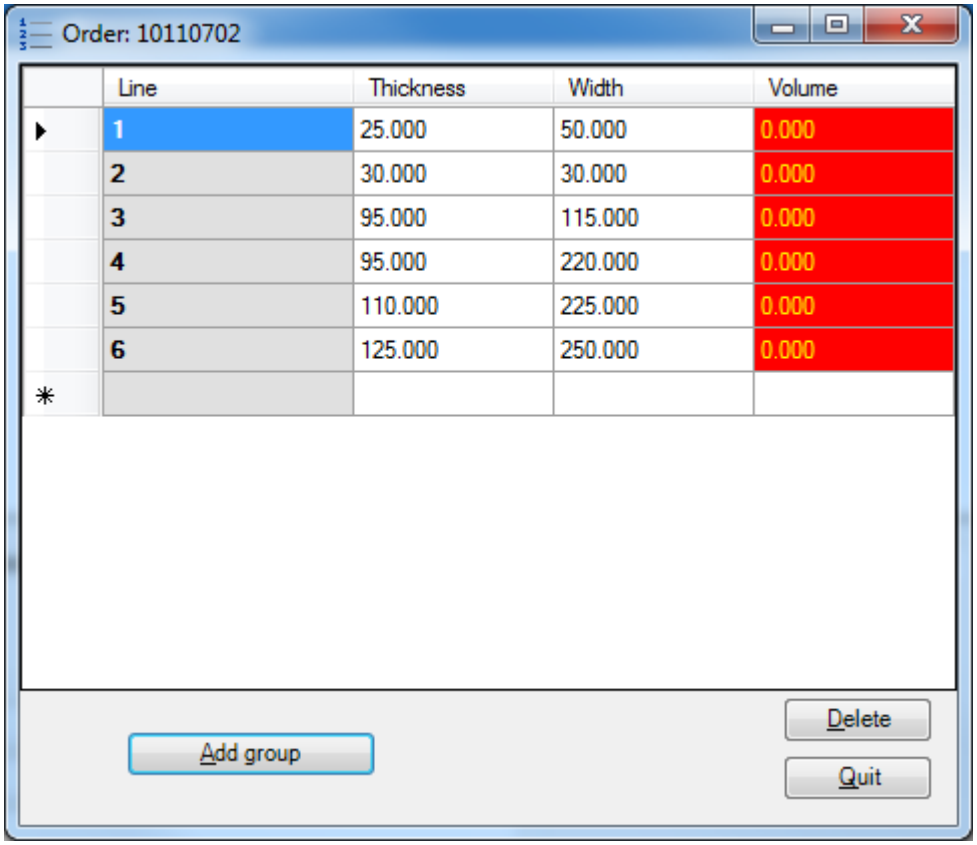
Here are entered sizes of timber and requested volume in volume units (m^3)
Sizes of timber are invoiced!
Of course zero size is not allowed. Zero volume is possible.

In case, that we already have sizes entered into “product size” screen we can import them.
So, just press “add group” button and screen with defined groups is opened:

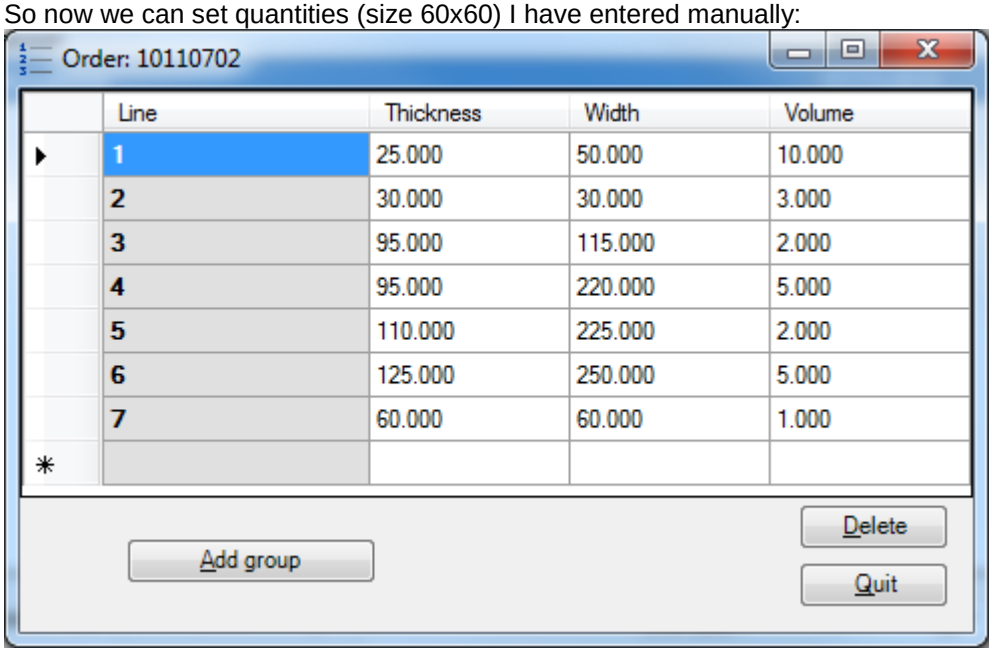


Just select group and press OK button.

This way we import all sizes from group into order:



So now we can set quantities (size 60x60) I have entered manually:



Line of order can be removed either via “Delete” button or ctrl+delete key. After deleting of line all other lines are recalculated. So always are line numbered from 1 with step of 1.

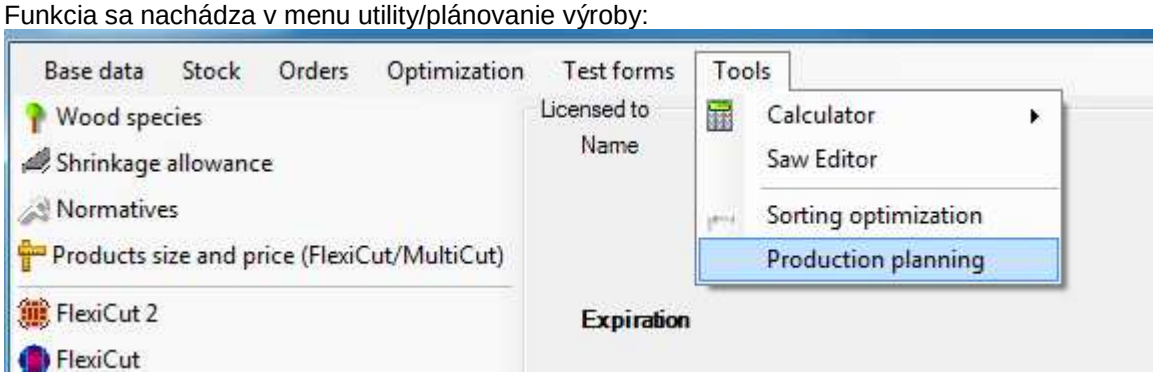
6. Main calculation of production

This function is used for calculation of plan to cover customer orders base on precalculated sawing patterns.

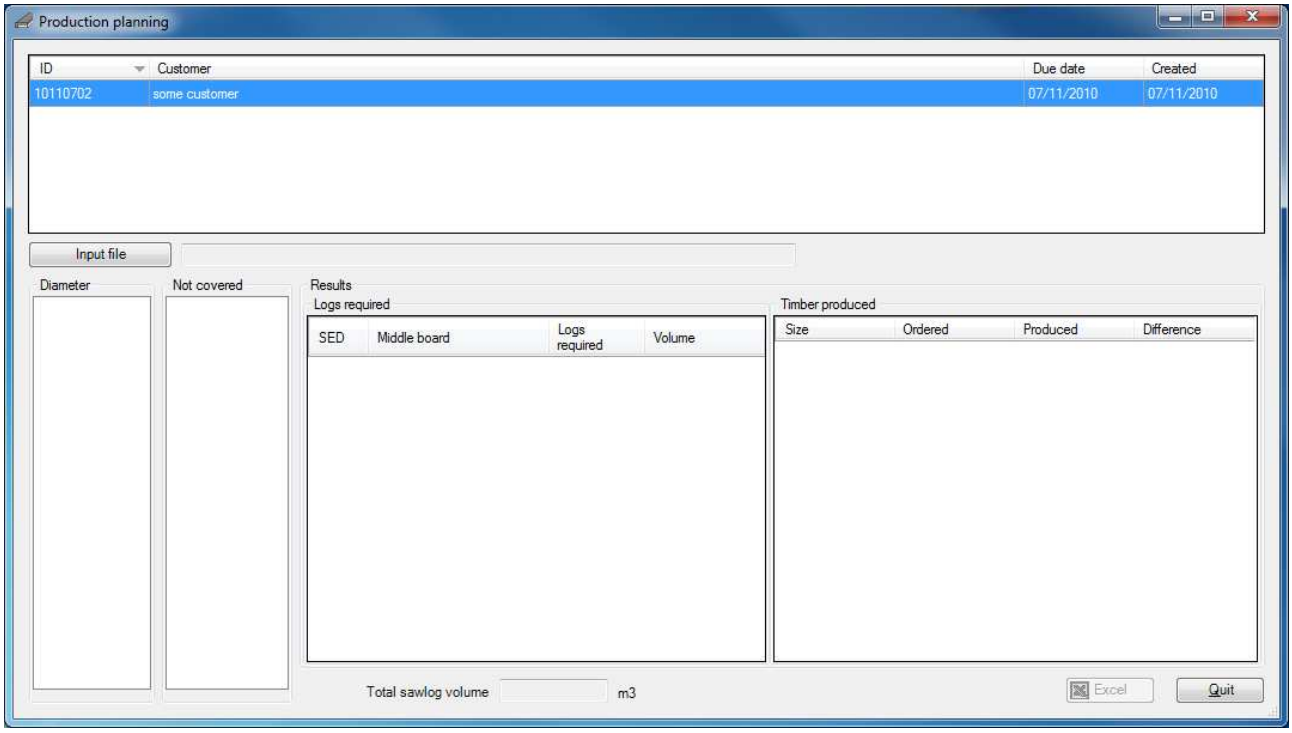
So this function base on precalculated sawing patterns count minimum number of pieces of sawlogs which are required to fulfill the order.

Important is, that criteria is minimum number of sawlogs! Optimization doesn't take in account limitation as stock (for example limited number of sawlog with diameter 200). It works with unlimited stock.

Funkcia sa nachádza v menu utility/plánovanie výroby:



After run will be shown this screen:



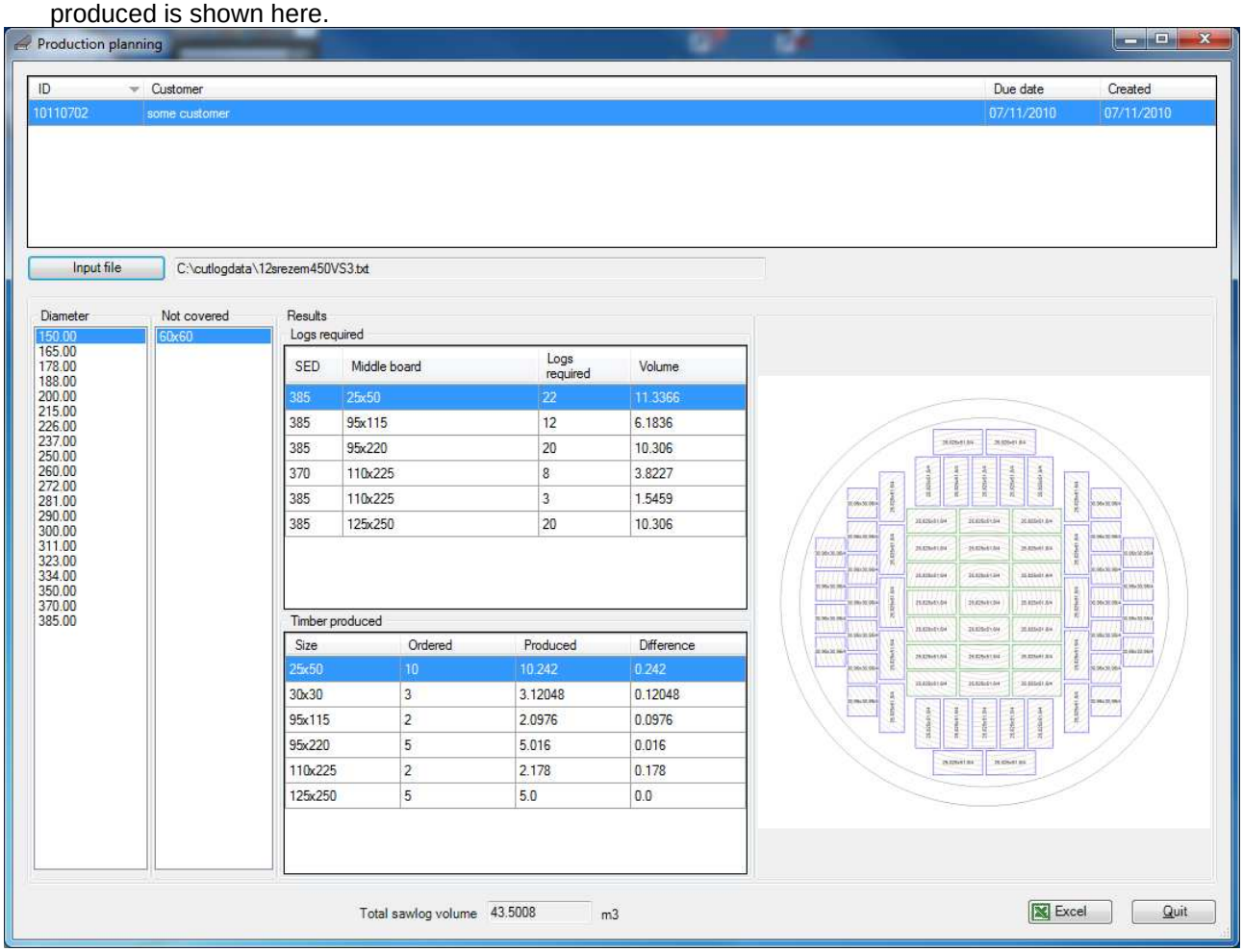
On top list there are orders.

Button "input file" is used for import of precalculated file created in FlexiCut2 in batch export.

6.1. Example

After loading file we can have output like on the screen below. There are sections:

1. **„Diameter“** – Listo of diameters which has been found in input file.
2. **„Not covered“** – List of timber sizes, which has been entered into order, but not found in input file. It means that they cannot be produced base on input file.
3. **Logs required** – List of sawlogs, which are required to fulfill selected order. Each has information, like middle board (correspond to FlexiCut2 settings of midleboard), required number of logs and volume of those logs.
4. **Timber produced** – List of timber produced by sawing of logs listed in previous point. There are information like ordered and produced quantity. Also timber which has not been in order but will be produced is shown here.



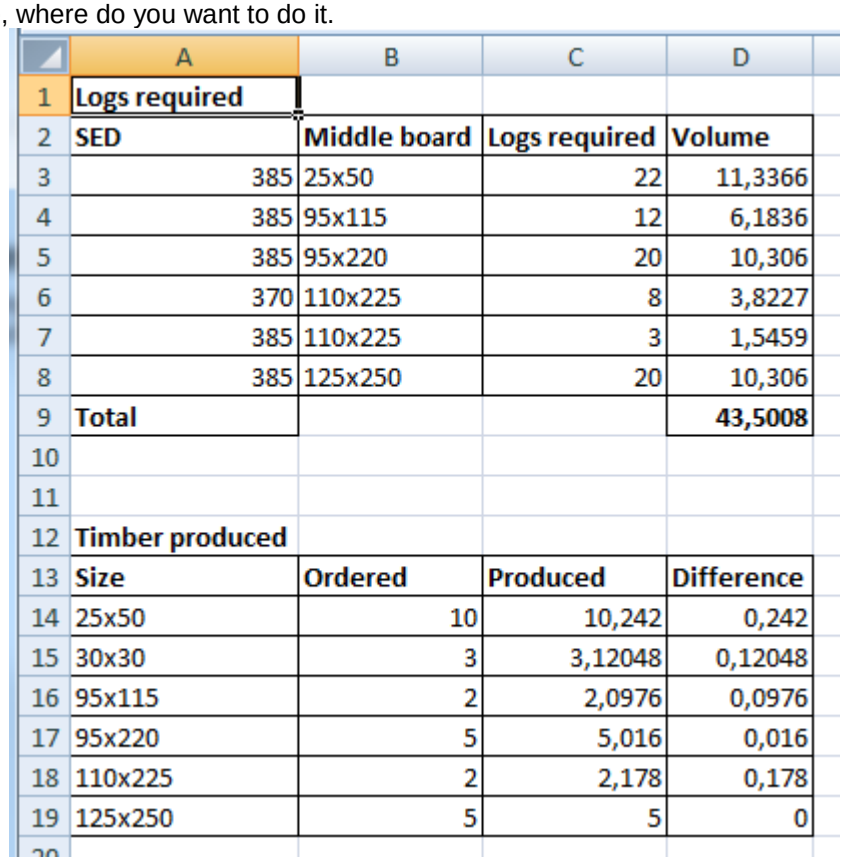
It is important, that result depends on input file. It means on setting of FlexiCut2 function and how batch precalculation has been processed.

That’s why we suggest to store FlexiCut2 settings into file, to be available later. It can be made directly in FlexiCut2 function:

It can be small change, like saw blade width and results can differ completely.

6.2. Excel export

With pressing of Excel button you can save results into MS Excel file. But in this case must be MS Excel installed on machine, where do you want to do it.



	A	B	C	D
1	**Logs required**			
2	**SED**	**Middle board**	**Logs required**	**Volume**
3	385	25x50	22	11,3366
4	385	95x115	12	6,1836
5	385	95x220	20	10,306
6	370	110x225	8	3,8227
7	385	110x225	3	1,5459
8	385	125x250	20	10,306
9	**Total**			**43,5008**
10				
11				
12	**Timber produced**			
13	**Size**	**Ordered**	**Produced**	**Difference**
14	25x50	10	10,242	0,242
15	30x30	3	3,12048	0,12048
16	95x115	2	2,0976	0,0976
17	95x220	5	5,016	0,016
18	110x225	2	2,178	0,178
19	125x250	5	5	0

7. System requirements

System requirements are the same as requirements for CutLog software.

For running and using of software is necessary to fulfill some base requirements.
Systems base on Windows 95 and 98 are not supported, because they are obsolete.

Hardware – minimum requirements:

(base on Windows 2000 professional and .NET Framework 2.0 Redistributable)

Processor:	Pentium compatible processor 133 MHz or newer
RAM:	minimum 64MB
Hard Disk:	2GB
VGA:	1024x768 a greater resolution. At least 256 colors

Hardware – recommended:

(base on Windows XP professional system and .NET Framework 2.0 Redistributable)

Processor:	Pentium compatible processor 1 GHz or newer
RAM:	minimum 128MB
Hard Disk:	2GB
VGA:	1024x768 and greater resolution. At least 32 bit colors

Operating system:

Windows 2000 and newer
Windows 7 is recommended (32 or 64 bit versions)
CutLog software is compatible with Windows 7 and it can be used on both – 32 and 64 bit versions of system.

Others: For exporting into MS Excel, it is necessary to hav MS Office installed , or at least MS Excel

Links:

.NET framework 2.0 requirements:
http://msdn.microsoft.com/netframework/technologyinfo/sysreqs/default.aspx

Windows 2000 System requirements:
http://www.microsoft.com/windows2000/professional/evaluation/sysreqs/default.asp

Windows XP Professional system requirements:
http://www.microsoft.com/windowsxp/pro/evaluation/sysreqs.mspx

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Microsoft .NET Framework Version 2.0 Redistributable Package (x86)
http://www.microsoft.com/downloads/details.aspx?FamilyID=0856eacb-4362-4b0d-8edd-aab15c5e04f5&DisplayLang=en

Microsoft .NET Framework Version 2.0 Redistributable Package (x64)
http://www.microsoft.com/downloads/details.aspx?FamilyID=b44a0000-acf8-4fa1-affb-40e78d788b00&DisplayLang=en

Microsoft .NET Framework Version 2.0 Redistributable Package (IA64)
http://www.microsoft.com/downloads/details.aspx?FamilyID=53c2548b-bec7-4ab4-8cbe-33e07cfc83a7&DisplayLang=en