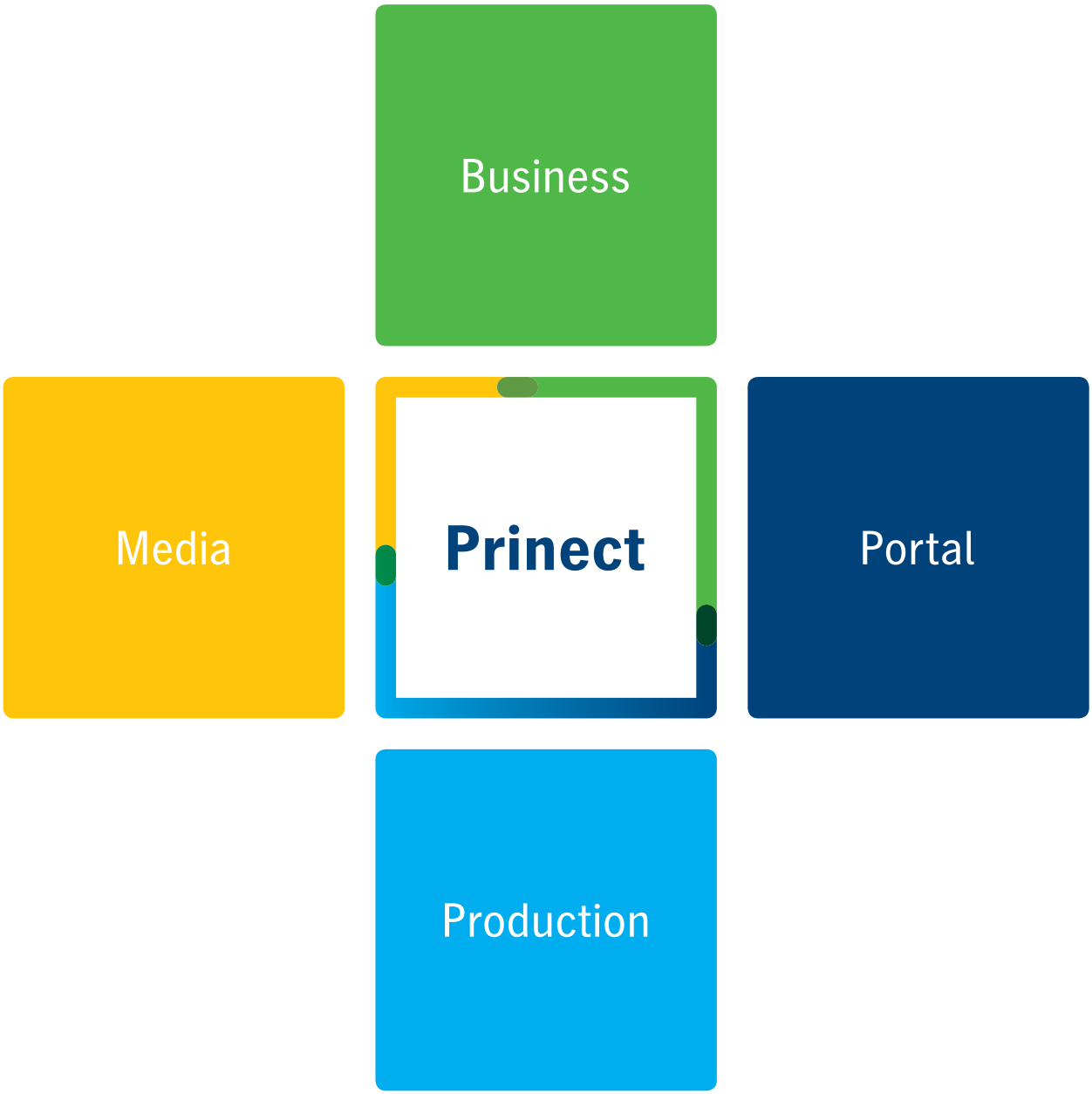
Equipment

Service Information
Prinect Business Manager
Book production 2020



HEIDELBERG

Table of Contents

Theory

Hardcover book production 5

General

System configuration
of the Prinect BusinessManager 9

Product group

Add a new Product group "Books" 11

Binding Intent

Add the "BindingIntent" HardCover 13

Finishing types

Add the "Finishing types" 15

Internal finishing

Add the necessary "Internal finishing" processes 17

Folding scheme

Folding schemes 21

JDF Cells (New in V 7.21)

JDF Cells for folding schemes with different pages 27

Colour code

Add the color code "unprinted" 33

Product type - Parts

Add the product parts 35

Product type

Configuration steps of the Product type 45

Single or multiple pages per section import pdf (New in Version 7.21)

Allows to import pdfs choosing between single/multiple pages per section 53

Estimation

How to make a hardcover book estimation? 57

Materialconsumption general finishing (New in V 7.21)

Configuration material consumption 63

Materials used in hard cover book production 64
Quick explanation before Version 7.21 67
Materialconsumption with Version 7.21 69

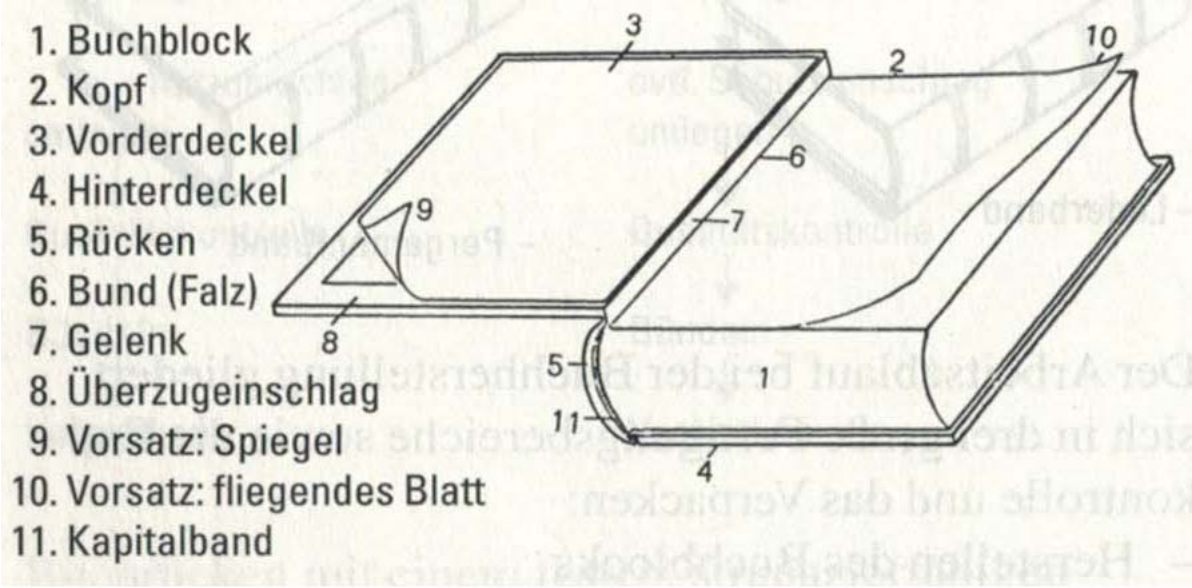
Hardcover book production

The hardcover book production is a new feature in PBM Version 7.20.

It is developed using only the Speed Estimator. Here you will find a short description (overview) of the single parts in the book production with hardcover.

To make it more understandable and to clarify the exact meaning of the technical terms.

The description of the most numbers you will see in the next page.

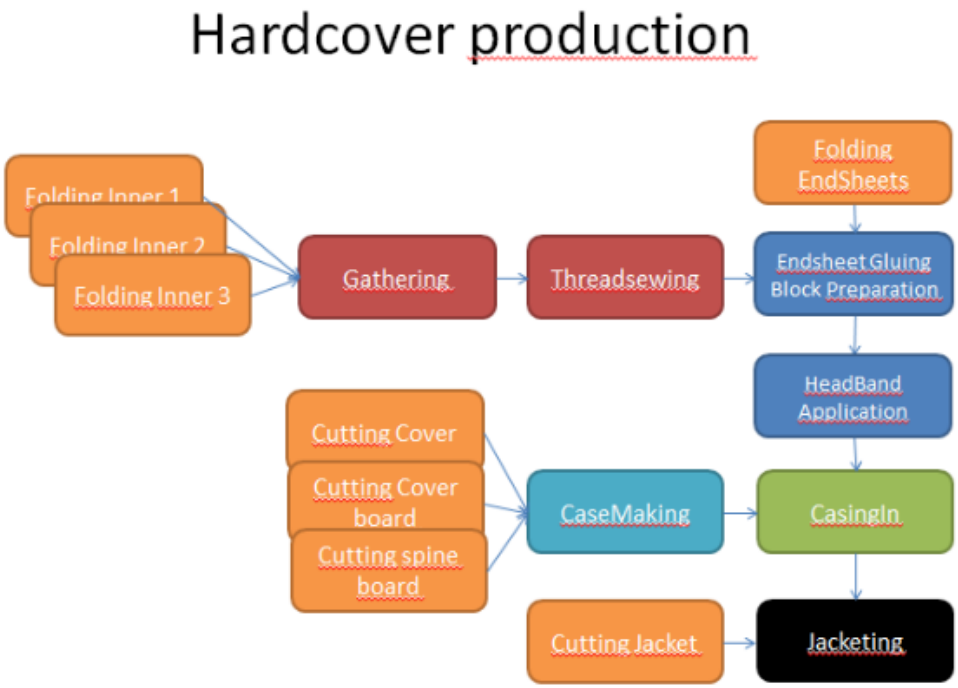


1. Bookblock
2. Head
3. Caseboard Front
4. Caseboard Back
5. Spine
6. Bound
7. Hinge
8. Jacket
9. Endsheet front
10. Endsheet back

Explanation of individual components of a book with the corresponding product part types.

Keyword	**Description**	**Product Part type**
Hard Cover (Case)	Book cover with cardboard inside	Cover for book
Inner signature	(1) Book block (Carrier of the printed information)	Inner signature
Endsheet front	(9)(10) Glued to the caseboard carton The endsheet can be printed or unprinted.	Endsheet
Endsheet back	(9)(10) Glued to the caseboard carton The endsheet can be printed or unprinted	Endsheet
Caseboard front	(3) Protection unit connected with the book block. Unprinted carton!	Case board
Caseboard back	(4) Protection unit connected with the book block. Unprinted carton!	Case board
Spine board	(5) Protection unit connected with the book block (Spine)	Spineboard
Jacket	Is put around the actual cover of books (additional protection cover). Printed sheet for the cover!	Jacket
Case Making	Hard cover manufacturing! Glue the caseboard front/back + spine with an additional coating material together	
Jacketing	(8) Coating material of the caseboard	
Hinge	(7) Fold between the spine and the book cover for gentle opening the book	
HeadBand	(11) To close the gap between book block and the book spine (head)	
Tail Band (footer band)	(11) To close the gap between book block and the book spine (foot)	
Head Band Application	Gluing the "Head Band" and the "Tail Band" at the head and foot.	
Ribbon Bookmark	Marking of read pages (bookmark)	
Threadsewing	Sew the folded sheets (signatures) together	
CasingIn	Book block is glued to book cover	
Gathering	Collect the sheets (signatures) in the correct order	

Here you will find a graphical overview about the single steps in the hardcover book production



System configuration of the Prinect BusinessManager

Since Version 7.20 a new product type **"Hardcover book"** and additonal product parts are available.

- Cover
- Text
- Endsheets
- Cover board front
- Cover board back
- Spine board
- Jacket

The dimensions of the single parts are interacting with each other.

The product type part will be extended, so that for a hardcover book all parts are identified.

This document will give you an overview of a possible way to set the parameters.

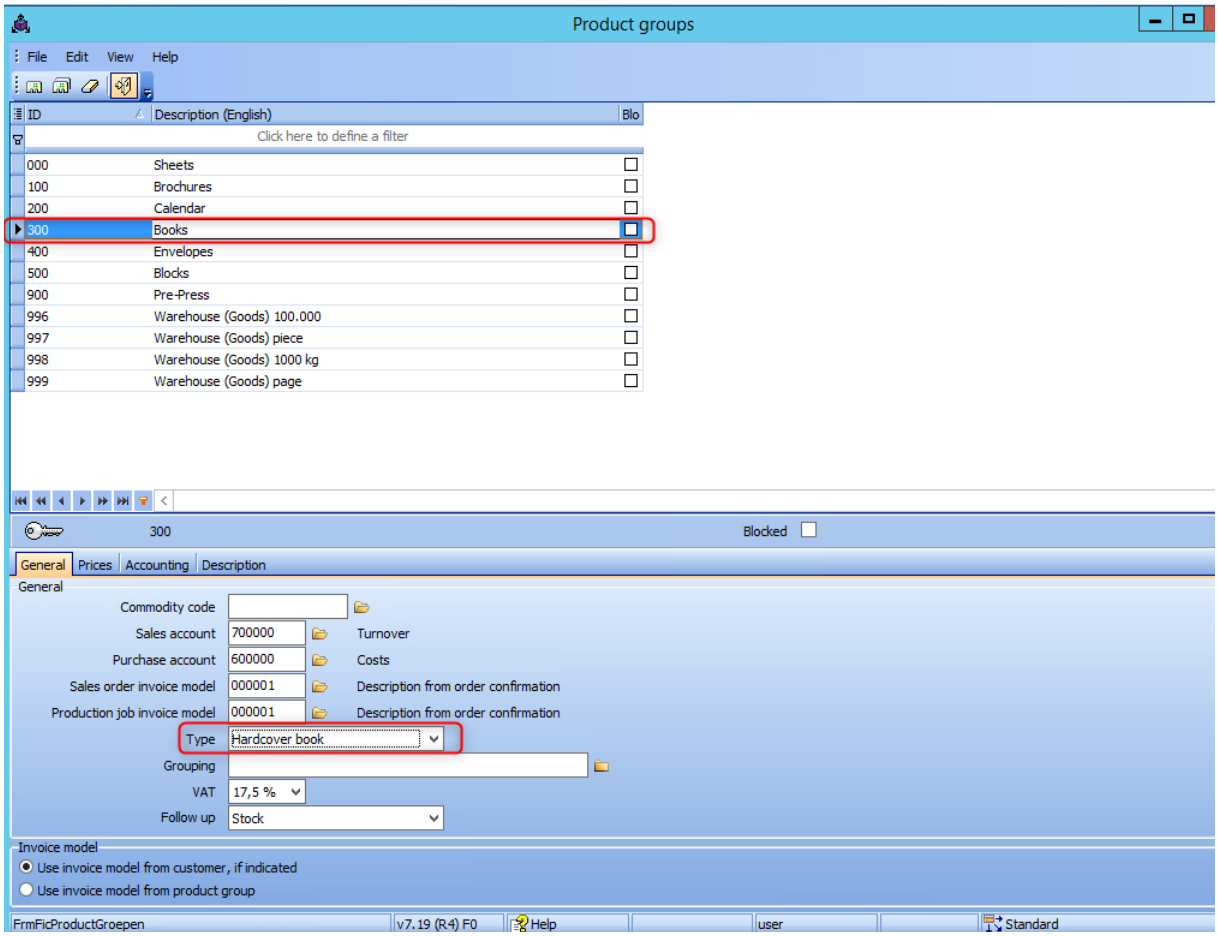
In the next steps, the setup of the single predefined parameters will be explained.

Add a new Product group "Books"

PMB explorer > Parameters > General parameters > Calculation and production > Product groups

Define a new product group.

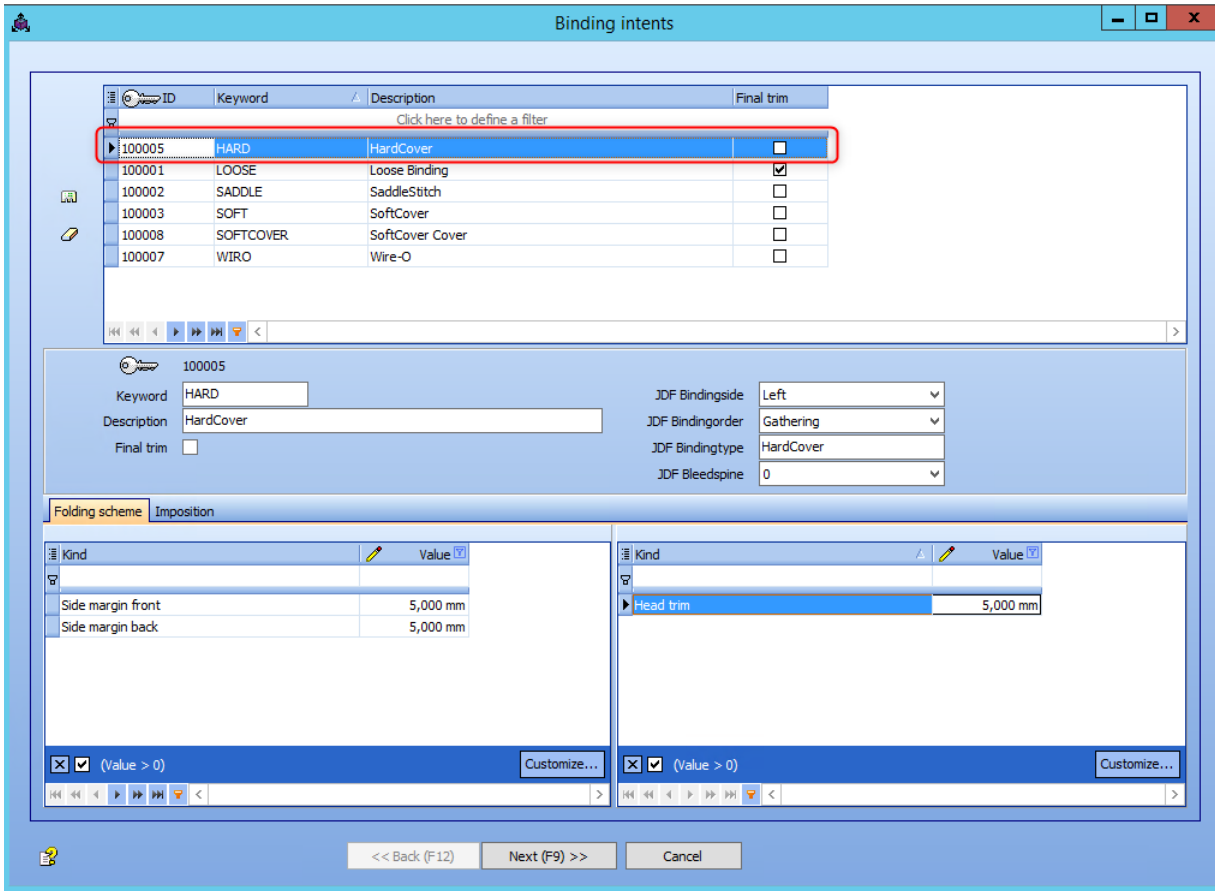
Select as "Type" hardcover book.



Add the "BindingIntent" HardCover

Add an additional Binding Intent.

PBM explorer > Parameters > Calculation parameters > Sheets/web parameters > Binding intents



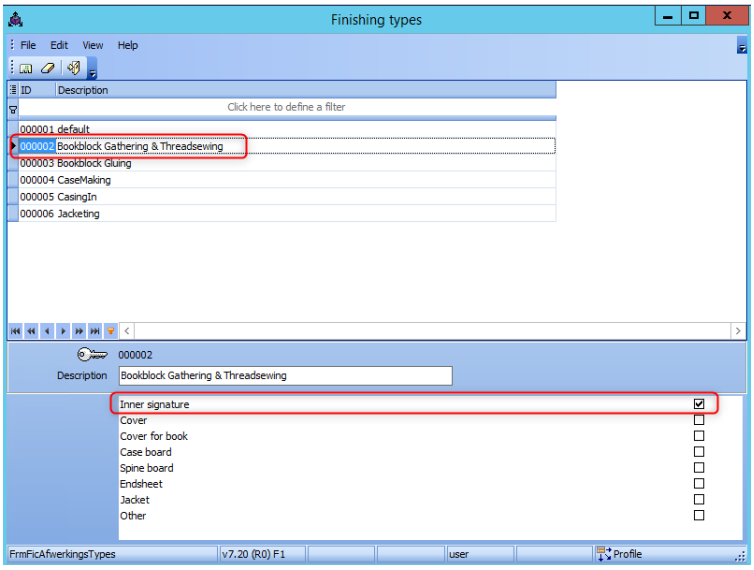
Add the "Finishing types"

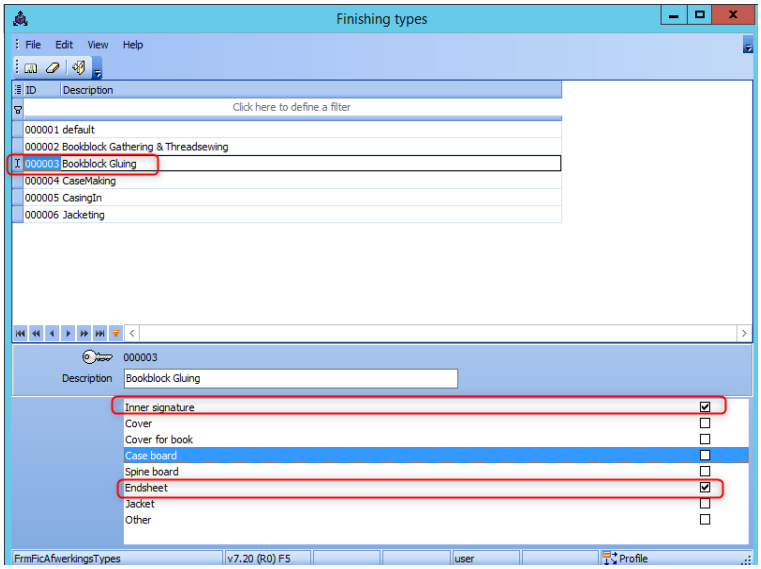
PBM Explorer > Parameters > Calculation parameters > Finishing parameters > Finishing types

Improve the calculation of the waste of the general finishing.

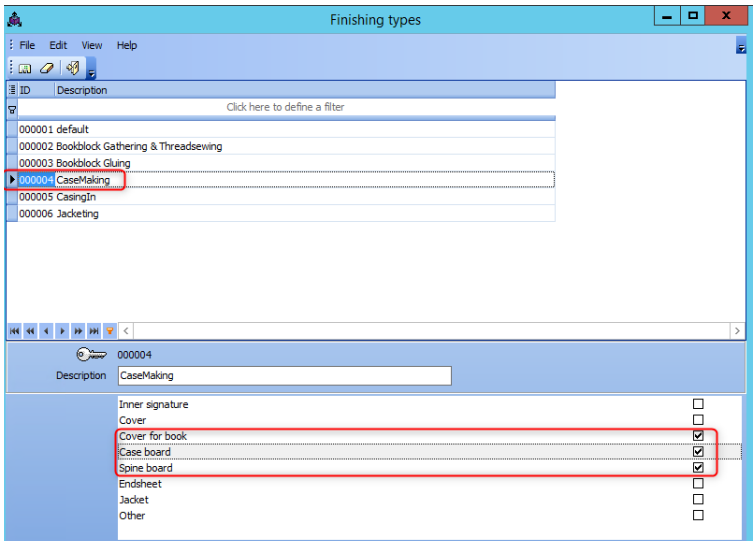
For the check marked product parts waste is calculated.

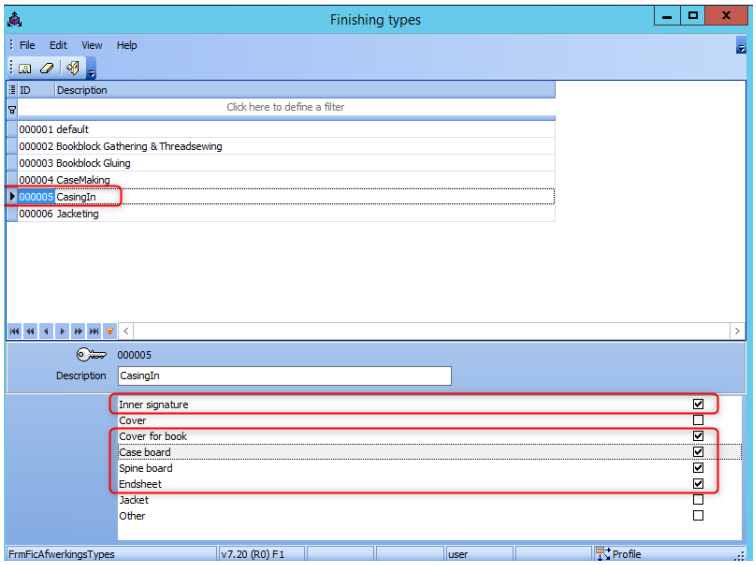
This is just as important for the Prinect Integration System later on, that the processes are summarized in the correct way.

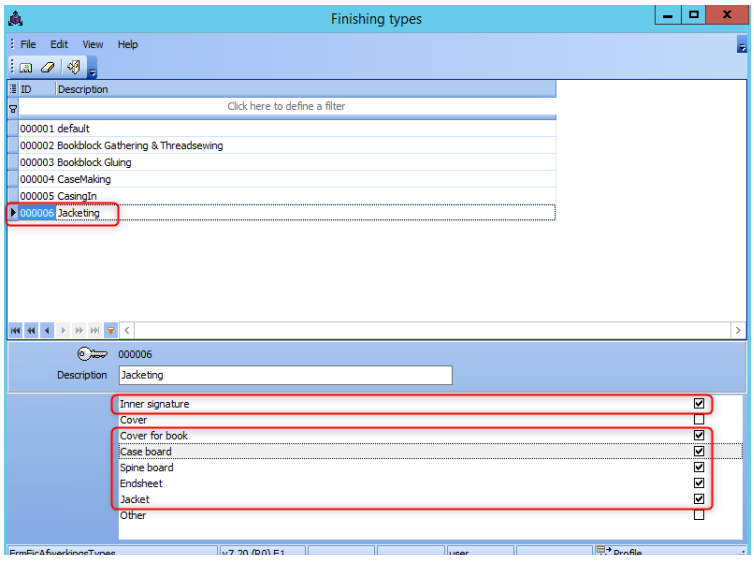




Finishing types





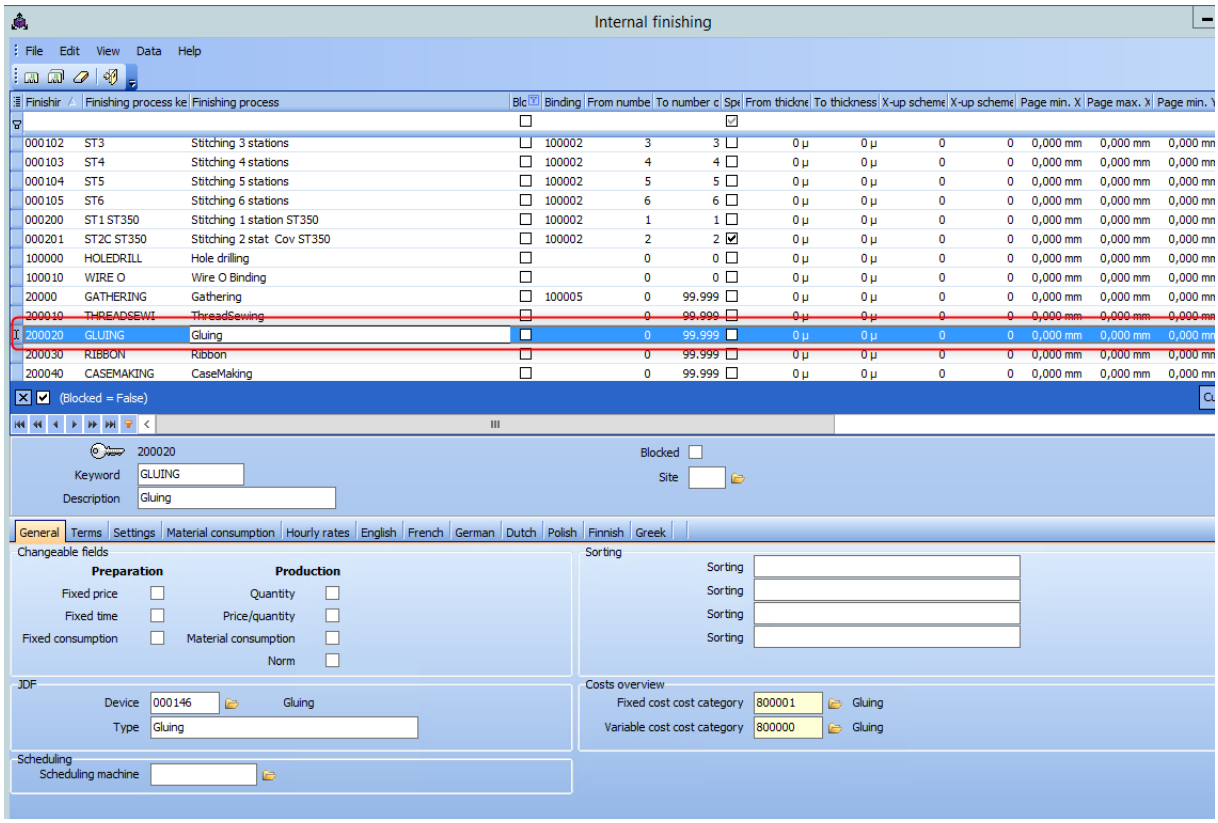


Add the necessary "Internal finishing" processes

In this example Threadsewing, Casemaking, Gluing, Casing In and Jacketing must be added.

PBM Explorer > Parameters > Calculation parameters > Finishing parameters > Internal finishing processes

1. Gluing

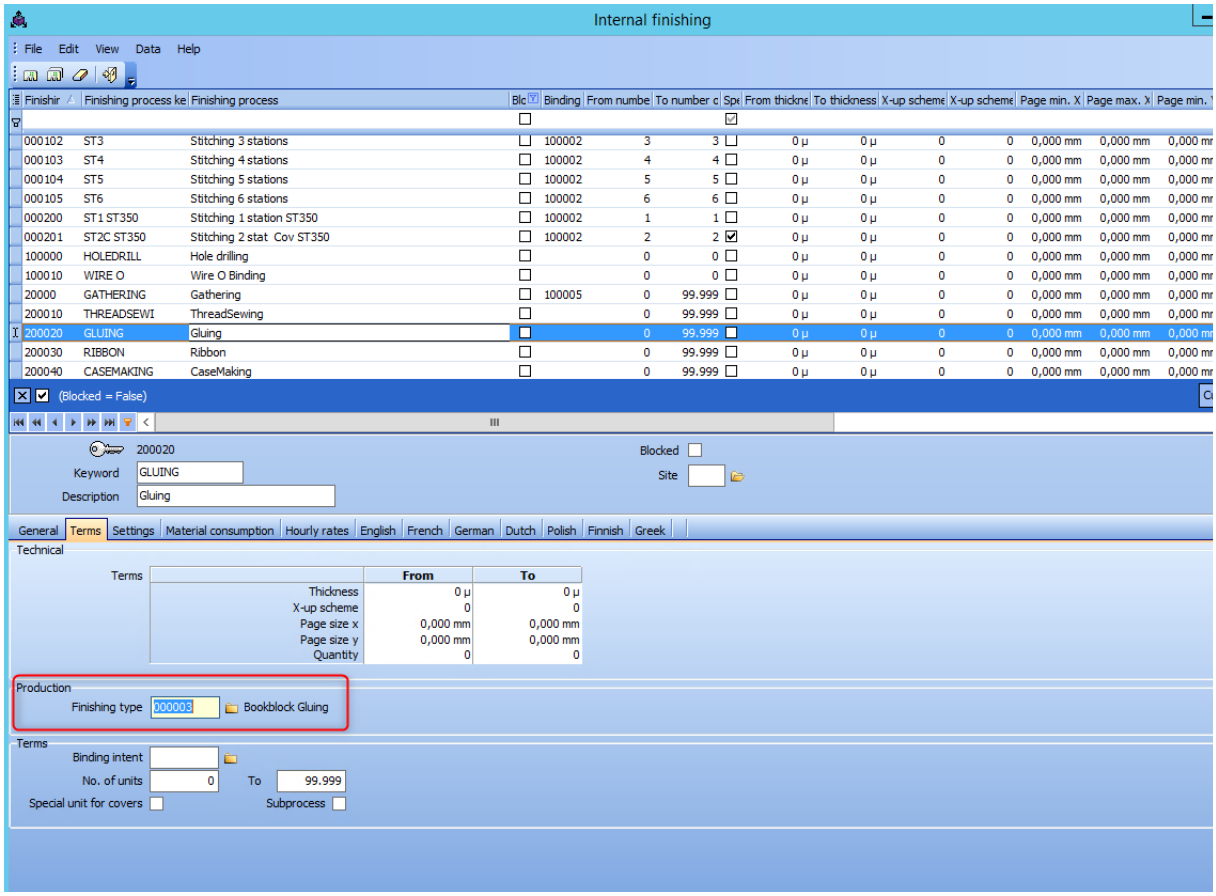


Don’t forget creating cost centers and the corresponding hourly rates.
The CDM Devices must be created in P2020.
Examples:
Gluing (5510),
Threadsewing (7600),
Casemaking (7700),
Casing In (7800)
Jacketing (7900)

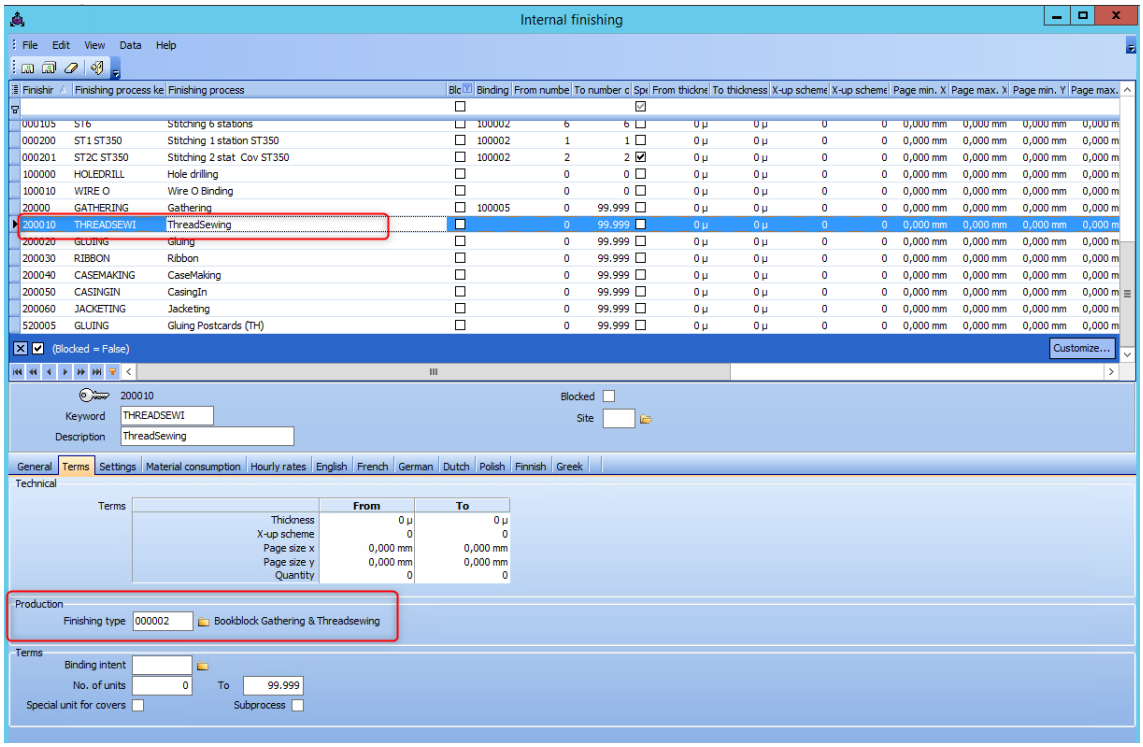
There is a new field in the internal finishing process for the reference to the new **finishing types** treating parts. This field is empty by default. This means, that there are no limitations on the parts.

When this field is filled, the calculation considers that this finishing will only treat the parts of the selected kinds.

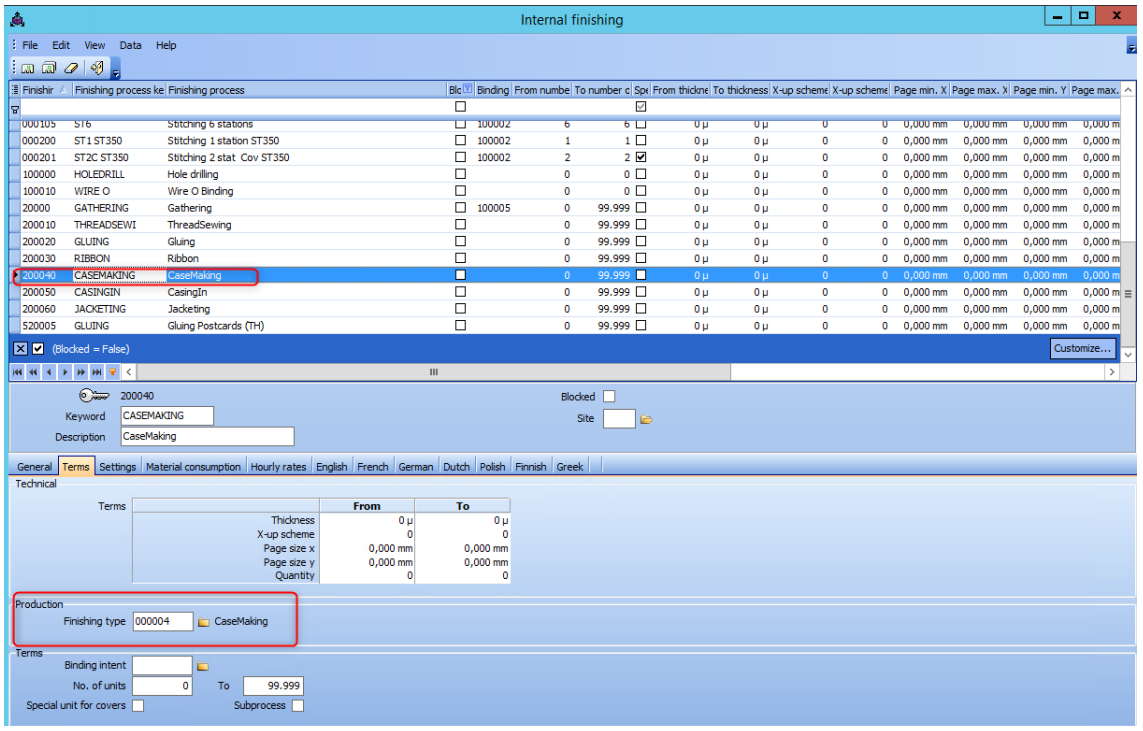
Be aware:
Binding Intent **must** be empty (Gluing, CaseMaking, Jacketing, Thread Sewing,...) otherwise it will not be possible to add this to the product type.
Important: With Gathering a Binding Intent is mandatory! This process will automatically added within the estimation.



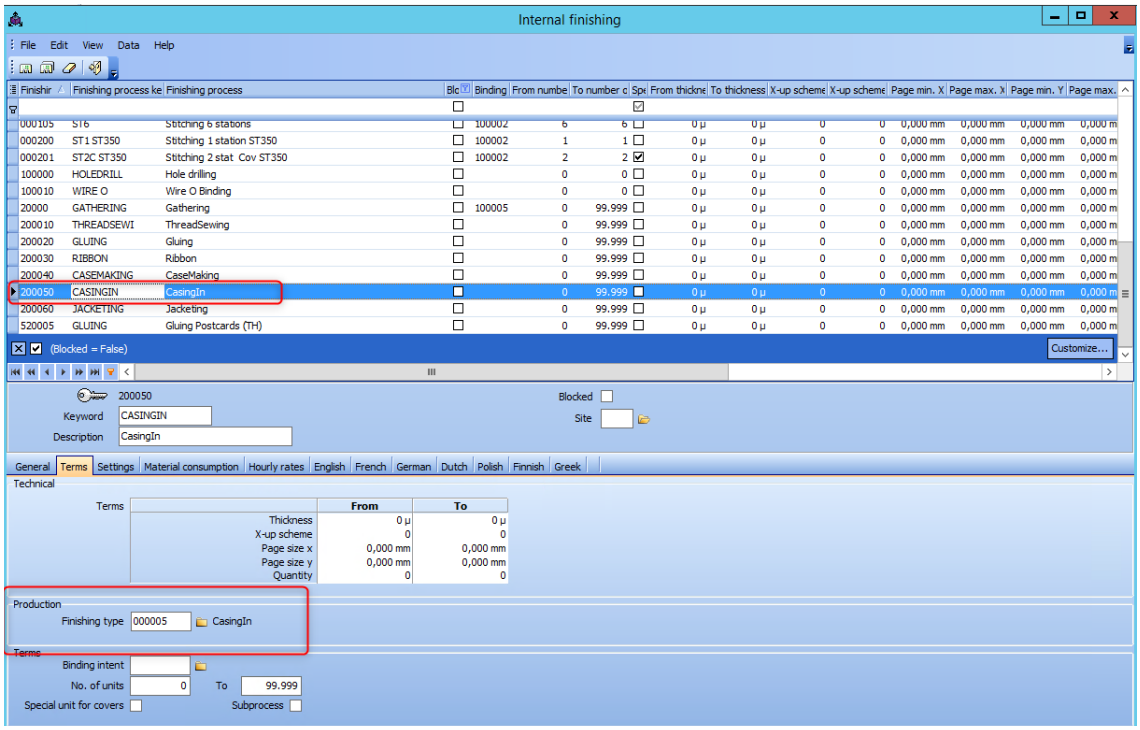
2. Threadsewing



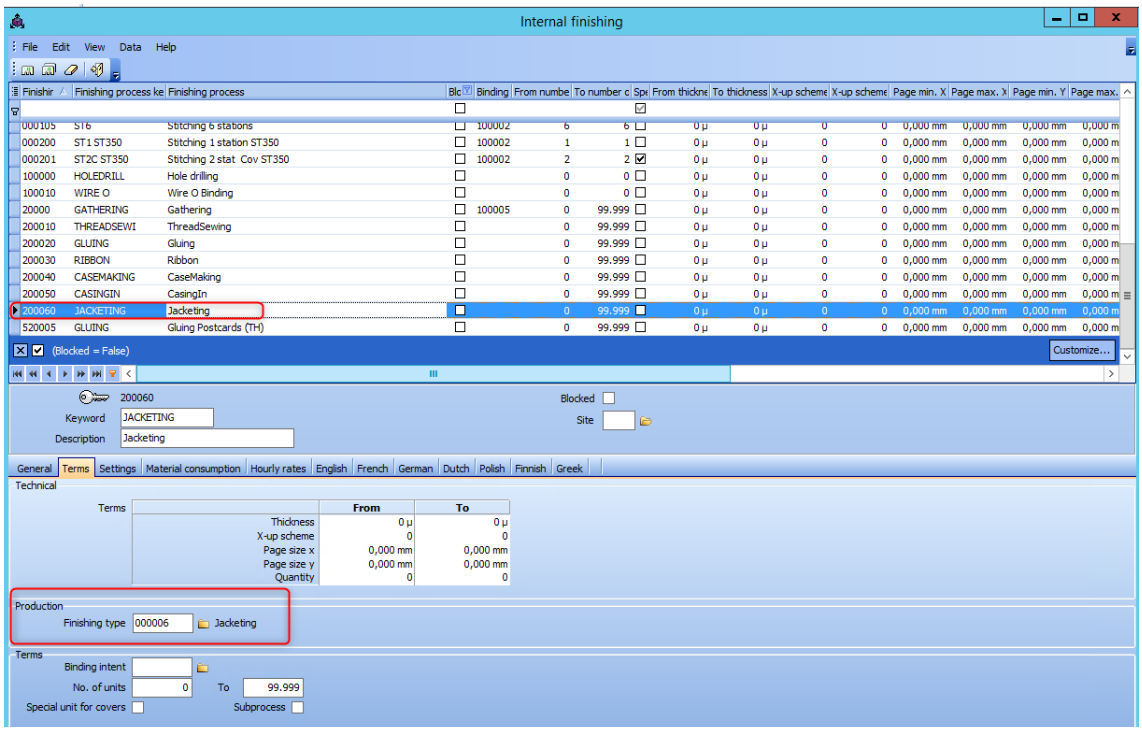
3. Case Making



4. Casing In



5. Jacketing



Folding schemes

Special folding schemes are necessary!
The "fold" and the "hinge" is for the cover a new item in the folding scheme.

The "Fold for hard cover" could be added in x- and y-direction.

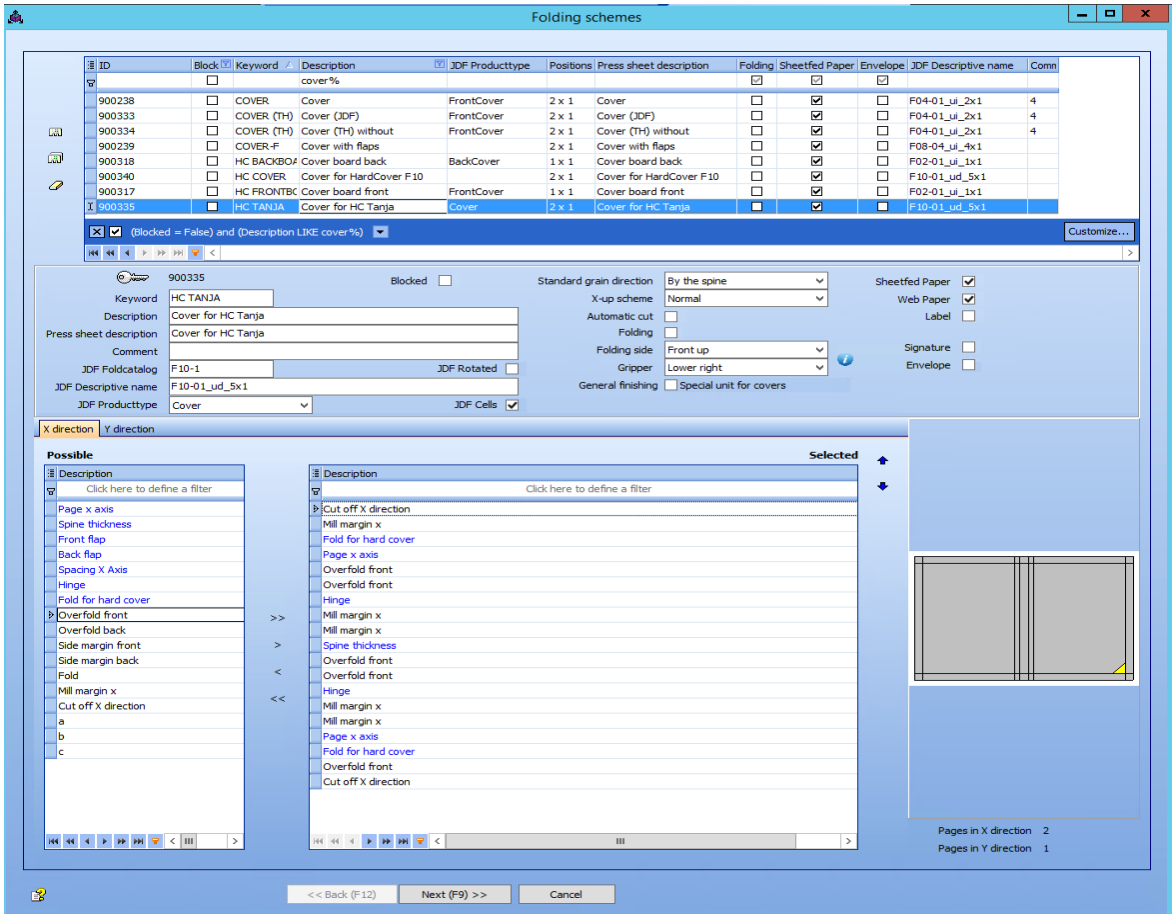
The "Hinge" only in x-direction.

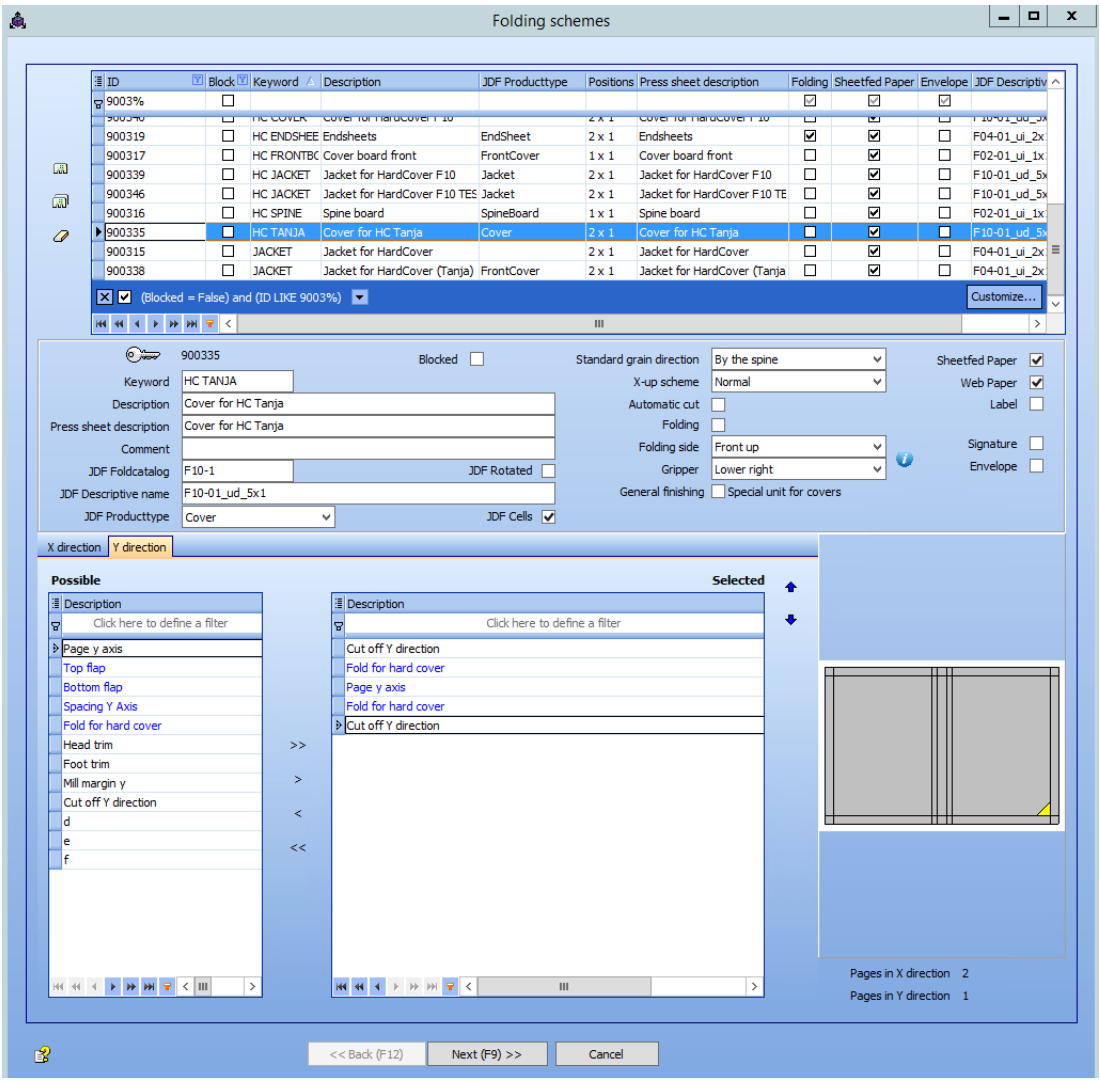
PBM > Parameters > Calculation parameters > Sheets web/parameters > Folding schemes

1. Cover:

Using a normal cover, add the spine, a hinge next to the spine on both sides,
in this example no flaps are added but a "fold" on each side, no "Special unit for the covers" and "Folding" is not checkmarked.

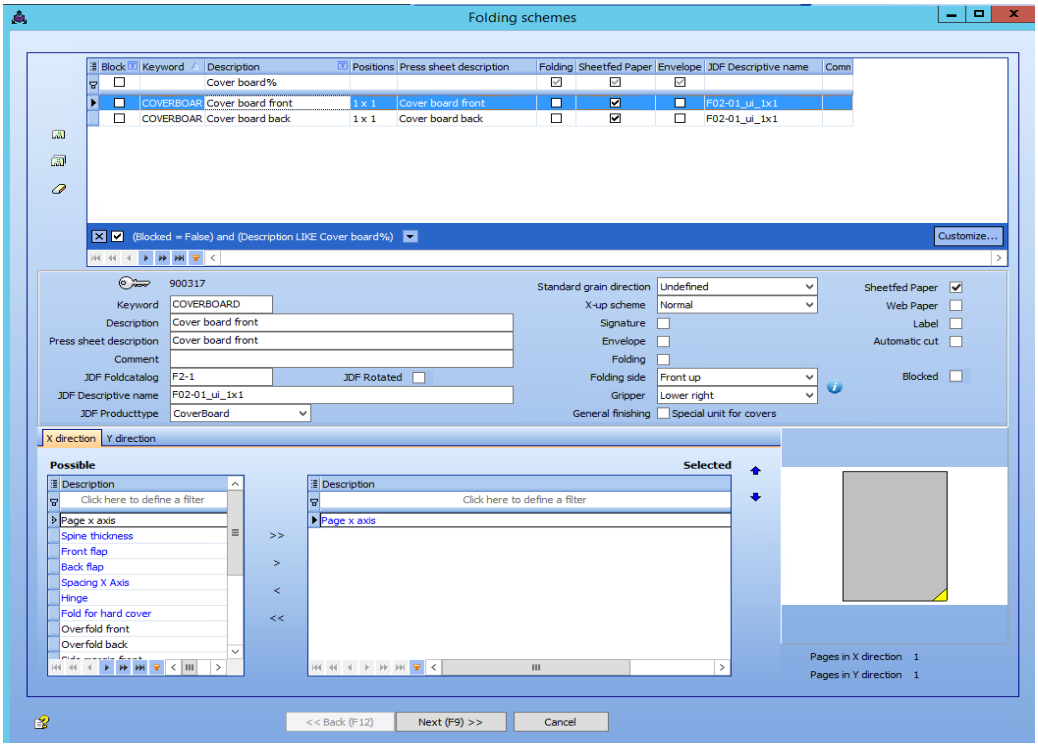
1. Possibility:

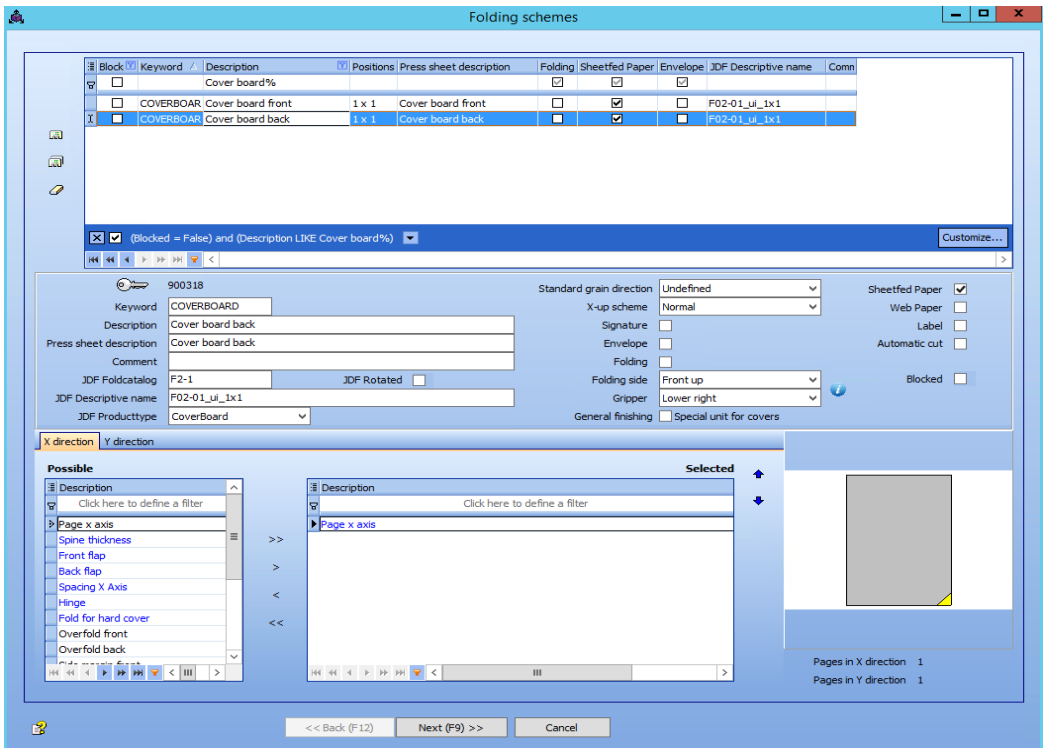




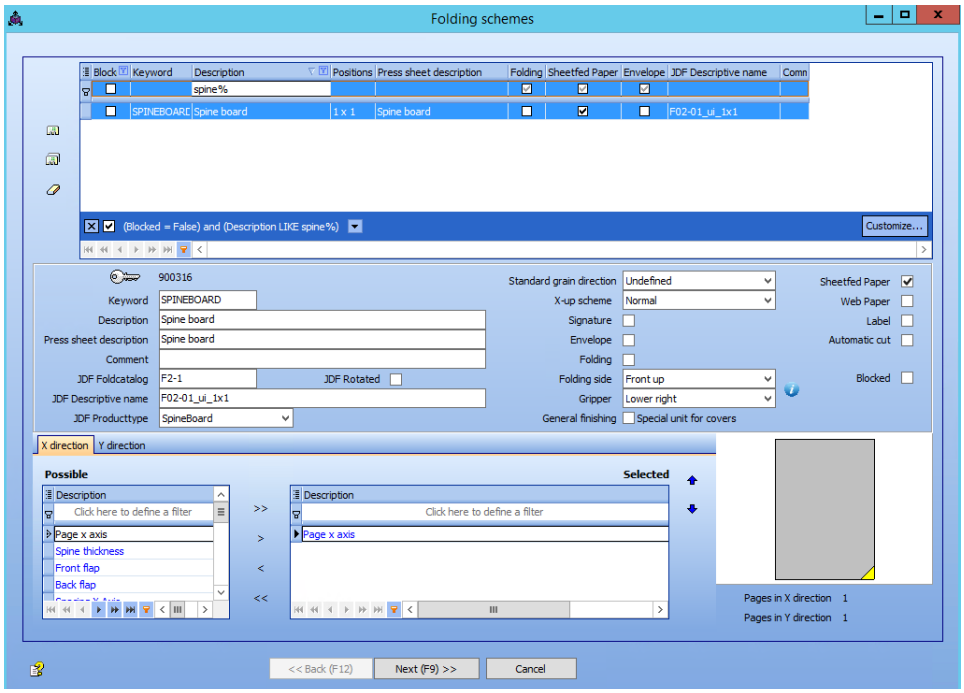
2. Possibility

If the cover is half linen, half paper, then the whole cover itself consists of three parts:
E.g. Front Cover in paper - the spine in linen - Back cover in paper.


Folding schemes
Block
Keyword
Description
Positions
Press sheet description
Folding
Sheetfed Paper
Envelope
JDF Descriptive name
Comn
Cover board%
COVERBOAR Cover board front 1 x 1 Cover board front F02-01_ui_1x1
COVERBOAR Cover board back 1 x 1 Cover board back F02-01_ui_1x1
(Blocked = False) and (Description LIKE Cover board%)
Customize...
900317
Keyword COVERBOARD
Description Cover board front
Press sheet description Cover board front
Comment
JDF Foldcatalog F2-1
JDF Rotated
JDF Descriptive name F02-01_ui_1x1
JDF Producttype CoverBoard
Standard grain direction Undefined
X-up scheme Normal
Signature
Envelope
Folding
Folding side Front up
Gripper Lower right
General finishing
Special unit for covers
Sheetfed Paper
Web Paper
Label
Automatic cut
Blocked
X direction
Y direction
Possible
Selected
Click here to define a filter
Page x axis
Spine thickness
Front flap
Back flap
Spacing X Axis
Hinge
Fold for hard cover
Overfold front
Overfold back
Pages in X direction 1
Pages in Y direction 1
<< Back (F12)
Next (F9) >>
Cancel

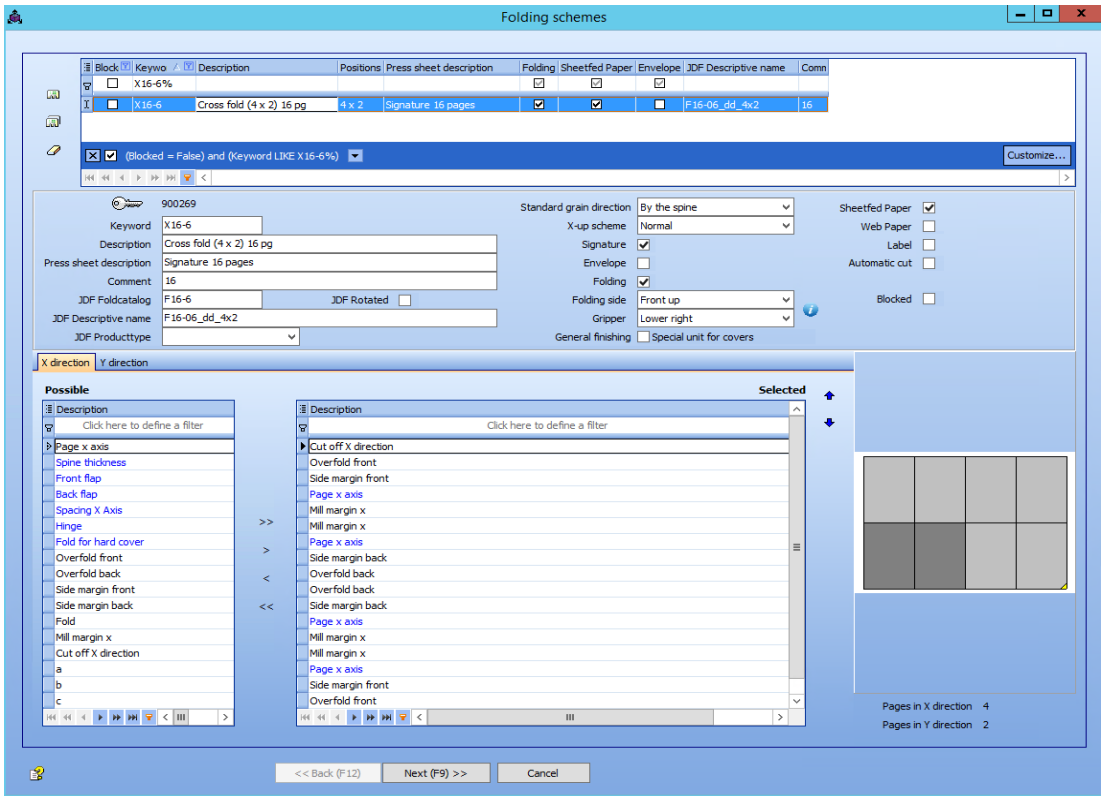

Folding schemes
Block
Keyword
Description
Positions
Press sheet description
Folding
Sheetfed Paper
Envelope
JDF Descriptive name
Comn
Cover board%
COVERBOAR Cover board front 1 x 1 Cover board front F02-01_ui_1x1
COVERBOAR Cover board back 1 x 1 Cover board back F02-01_ui_1x1
(Blocked = False) and (Description LIKE Cover board%)
Customize...
900318
Keyword COVERBOARD
Description Cover board back
Press sheet description Cover board back
Comment
JDF Foldcatalog F2-1
JDF Rotated
JDF Descriptive name F02-01_ui_1x1
JDF Producttype CoverBoard
Standard grain direction Undefined
X-up scheme Normal
Signature
Envelope
Folding
Folding side Front up
Gripper Lower right
General finishing
Special unit for covers
Sheetfed Paper
Web Paper
Label
Automatic cut
Blocked
X direction
Y direction
Possible
Selected
Click here to define a filter
Page x axis
Spine thickness
Front flap
Back flap
Spacing X Axis
Hinge
Fold for hard cover
Overfold front
Overfold back
Pages in X direction 1
Pages in Y direction 1
<< Back (F12)
Next (F9) >>
Cancel

Folding scheme

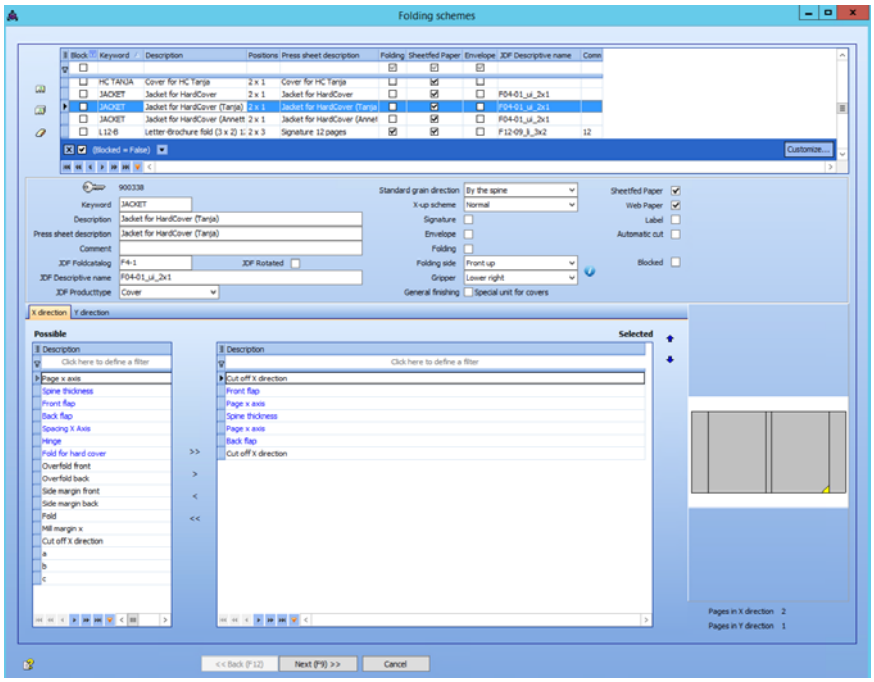


2. Inner Sheet

Inner Sheet is treated as in a basic estimation!

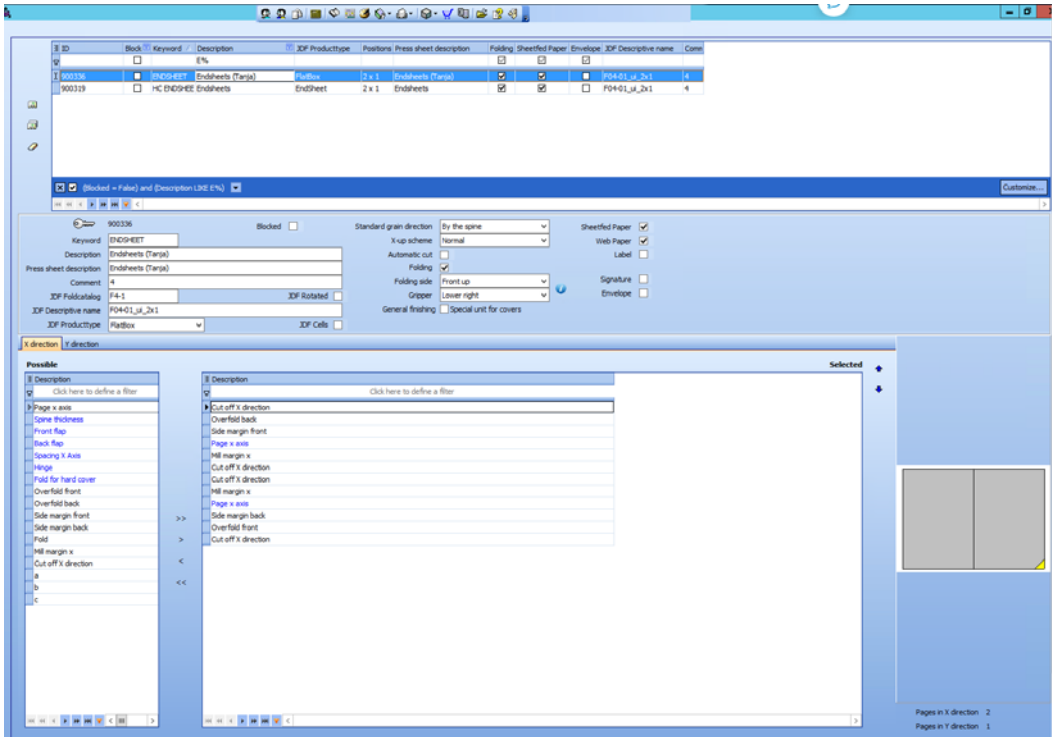


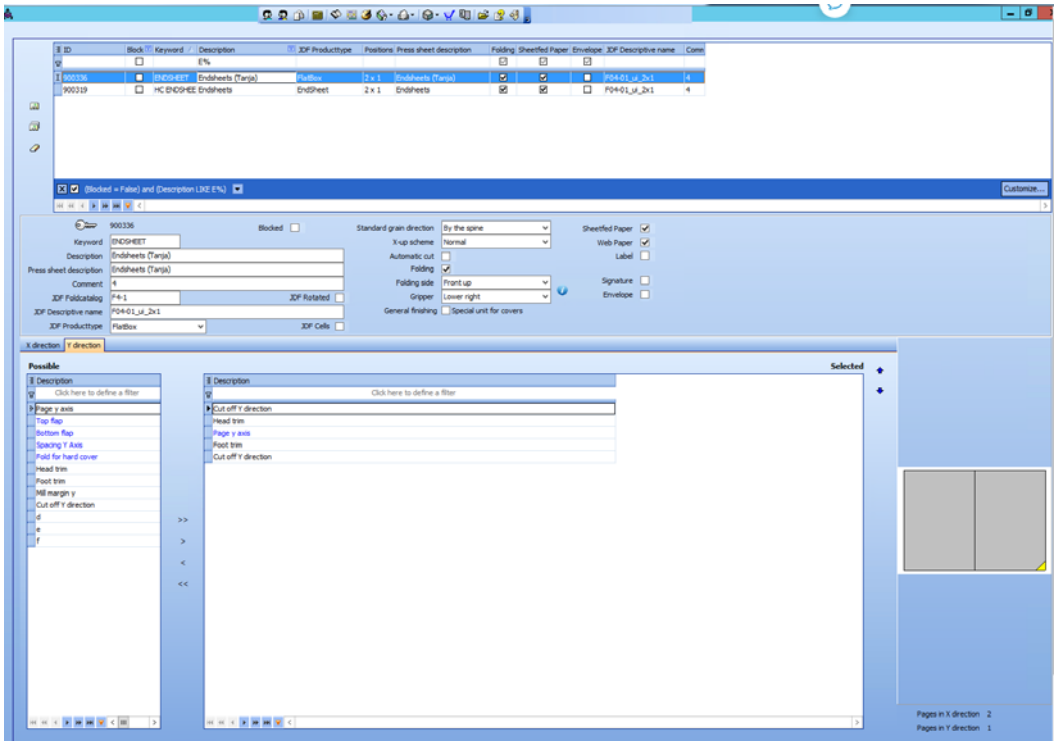
3. Jacket for Hardcover



In the page size of the jacket, the hinge is already included. Because of this behaviour, no hinge is needed here.

4. Endsheet





JDF Cells for folding schemes with different pages

7.21

Motivation:
JDF Cells are only in use with different page sizes in a folding scheme. For example a Hard Cover (Caseboard front/back, Hinge and Spine) or Brochures/Flyers with Flaps.

Flaps have to be configured in the folding scheme.

The Prinect Business Manager writes Stripping-Cells into the JDF,
which can be interpreted by the Prinect Signastation.

PBM explorer > Parameters > Calculation parameters > Folding schemes

This is an example for a Hardcover. The folding Scheme F10-1 (5x1) is taken.

There is a new field to checkmark "JDF Cells", that means, Strip Cells will be written into the JDF for a correct interpretation of the Prinect Signastation. For each different page size,
the Prinect Signastation is creating masterpages.

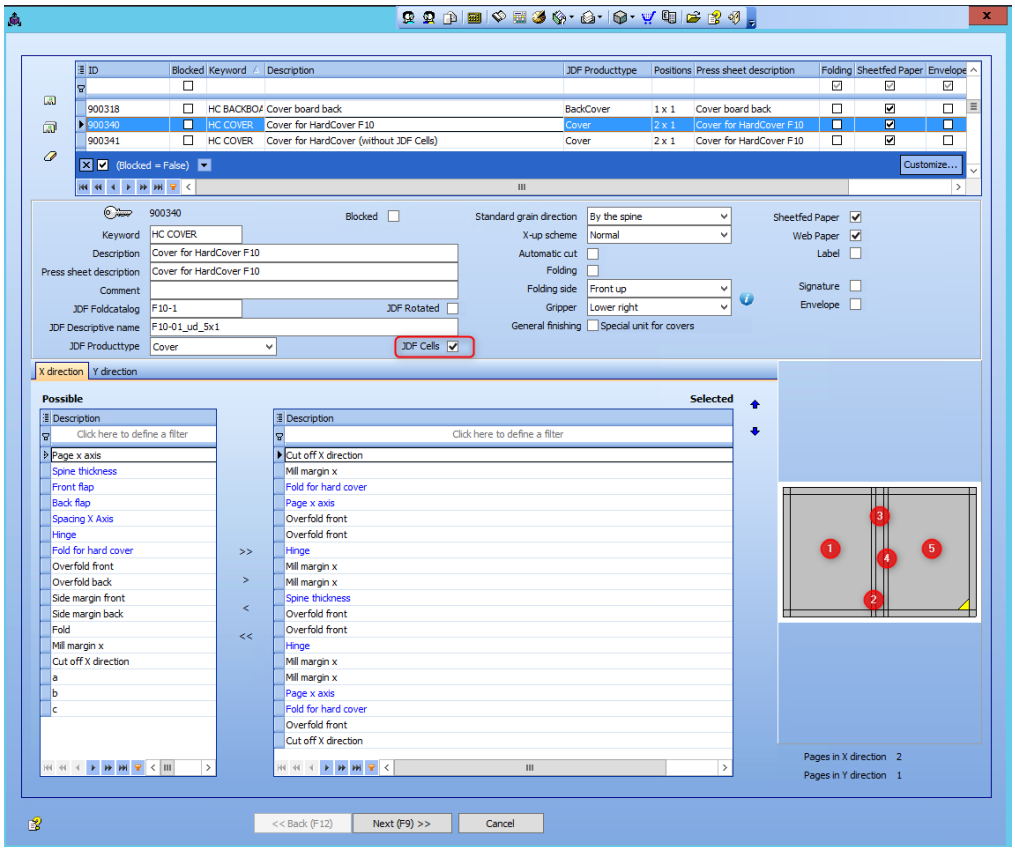
1 = Caseboard front

2= Hinge

3 = Spine

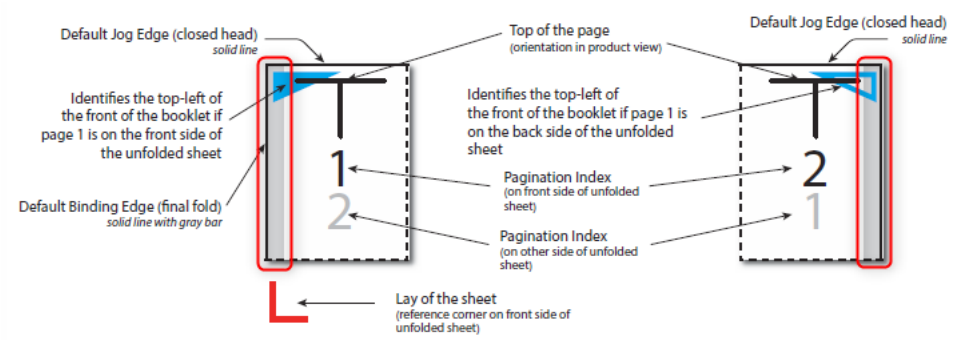
4 = Hinge

5 = Caseboard back



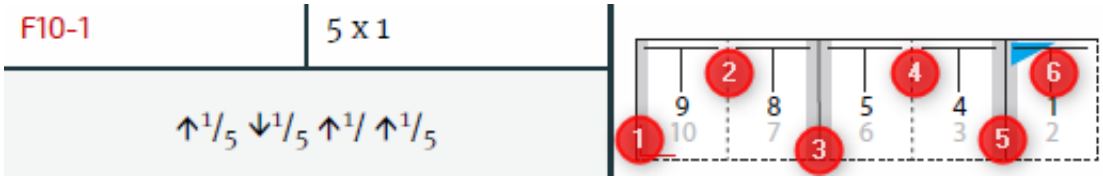
Be aware: In the Prinect BusinessManager this cover is estimated as 4 pages.

Important for the configuration of the folding scheme is - **to know where you will find the bound?**



An overview of all folding schemes you will find in the JDF spec page 825 ff.

Here again the example F10-1 for the HardCover book production.
The folding scheme must be configured according the the JDF Spec.



1 = Bound

2 = Outer/Outer

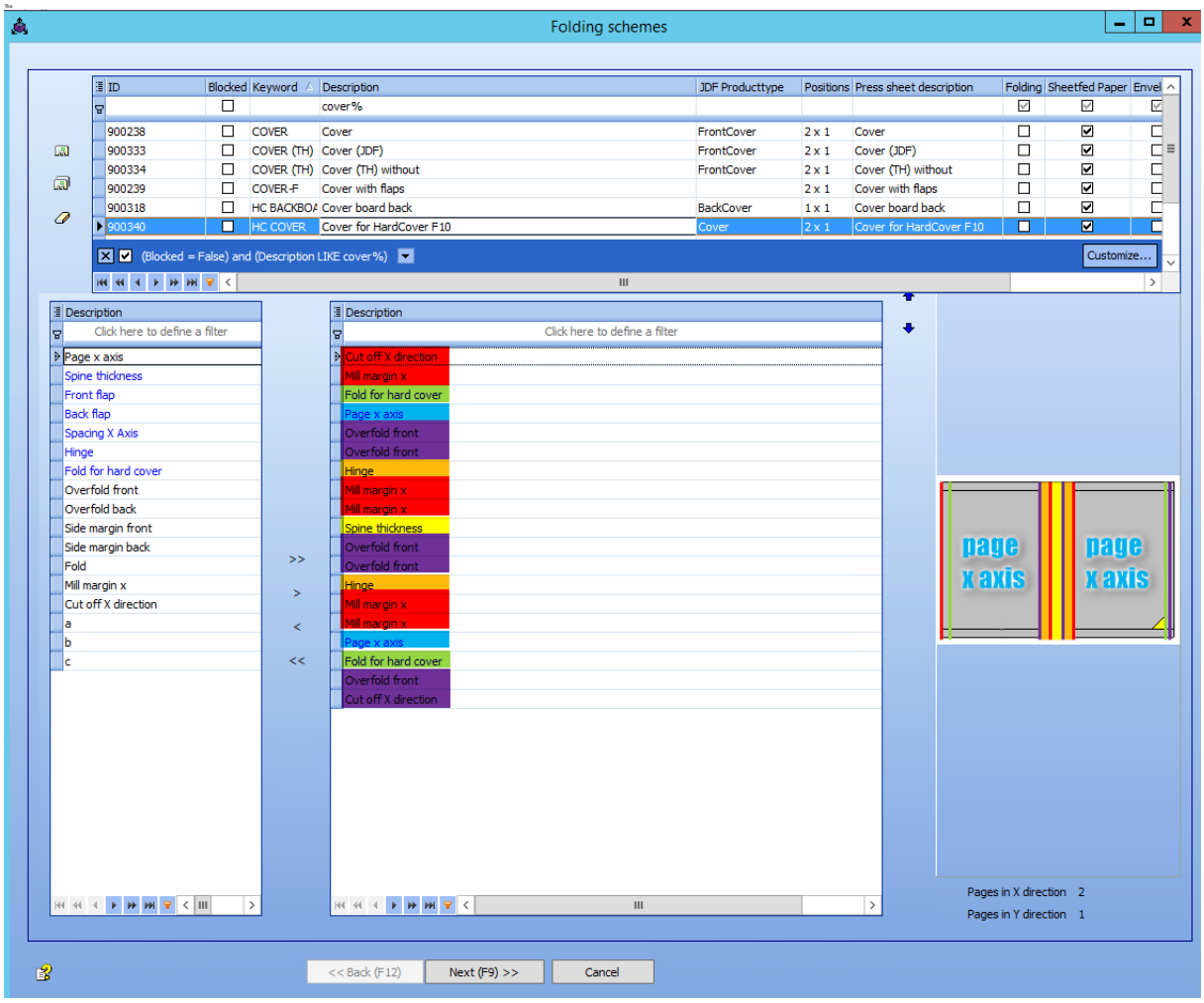
3 = Bound/Bound

4 = Outer/Outer

5= Bound/Bound

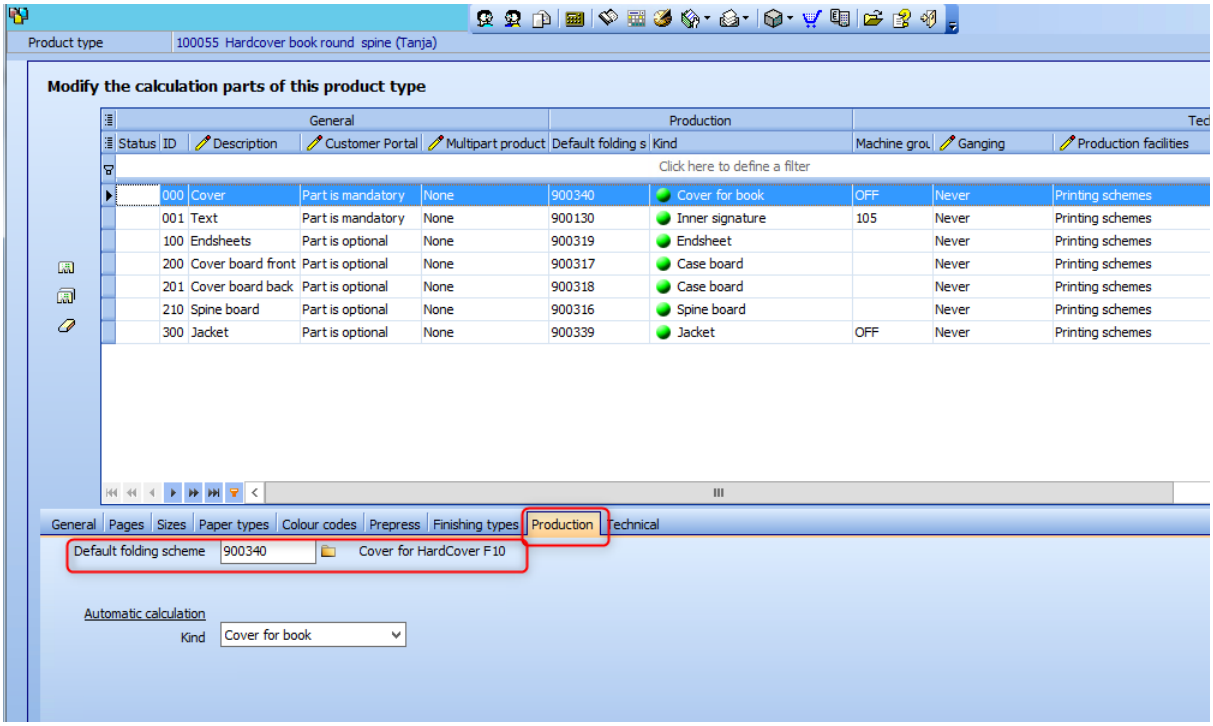
6 = Outer

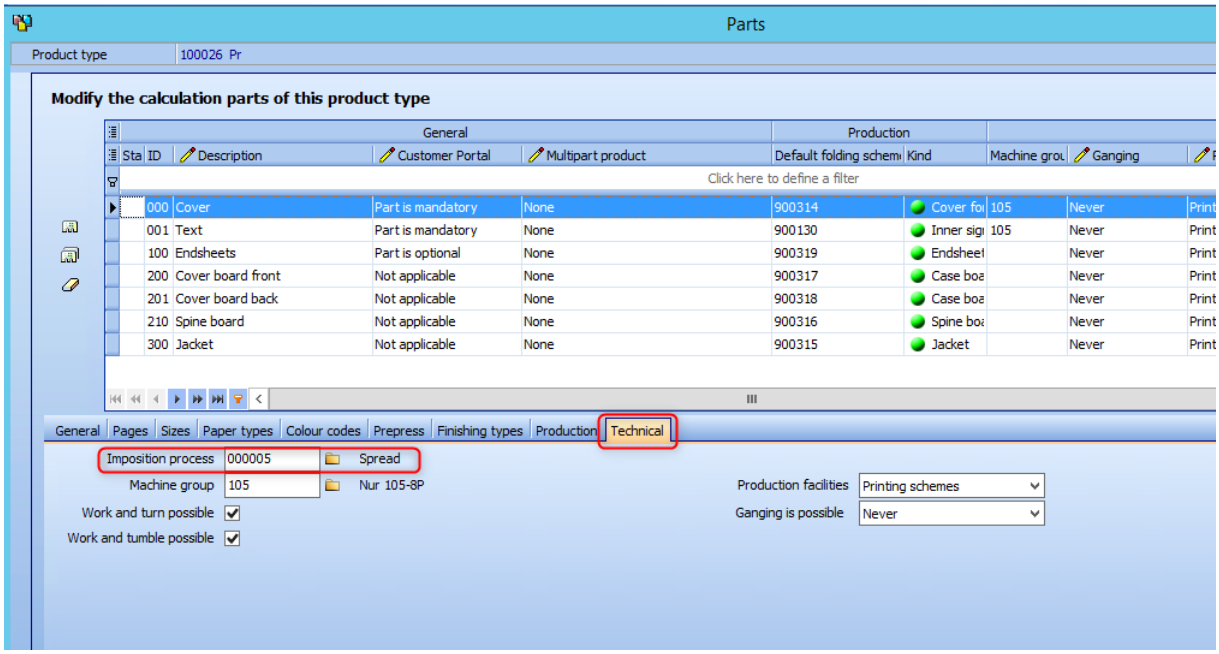
(1) The folding scheme F10-1 starts with the bound. Because of this, "Mill margin x" must be set in the x direction.



Important configuration is to add the "folding scheme" in the depended product part.
Also the configuration of the "spread" must be added.
Where and how to configure the "spread" is described in the previous capital "Single or multiple pages per section (import pdf).

PBM explorer > Production > Product types > Properties > Production/Technical

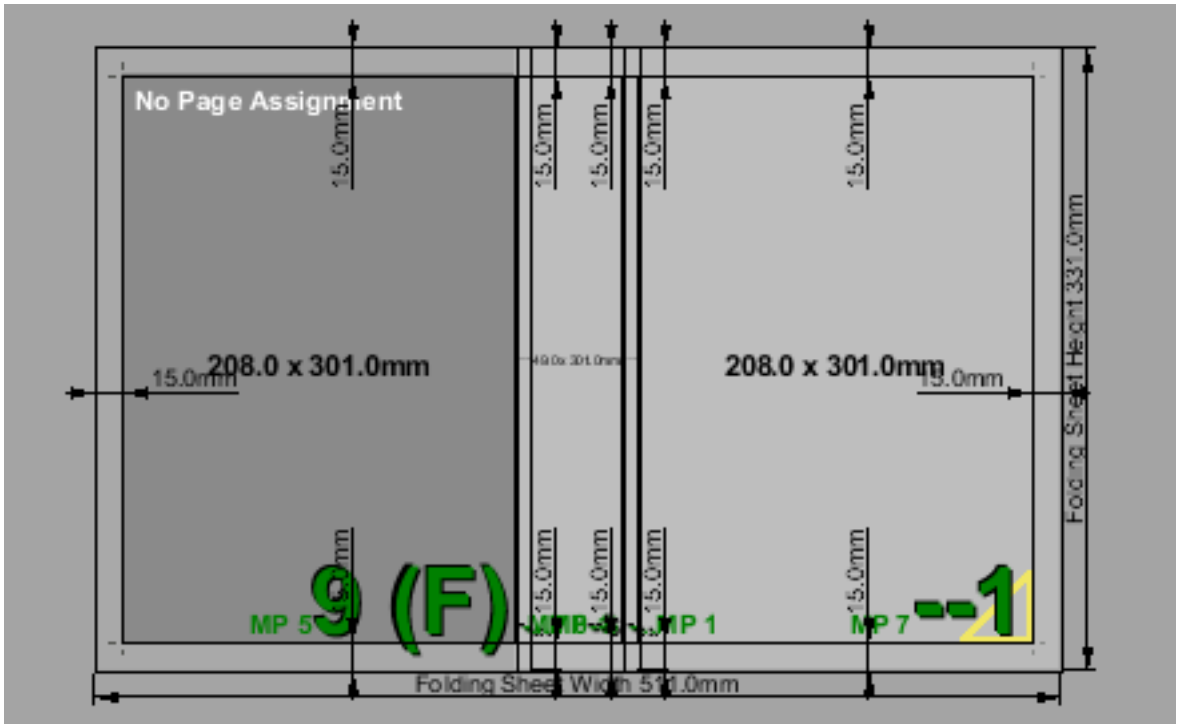




This shows a possible result for a folding sheet in the Prinect Cockpit!

Different materpages are visible. The "--1" is an indication for the "spread".

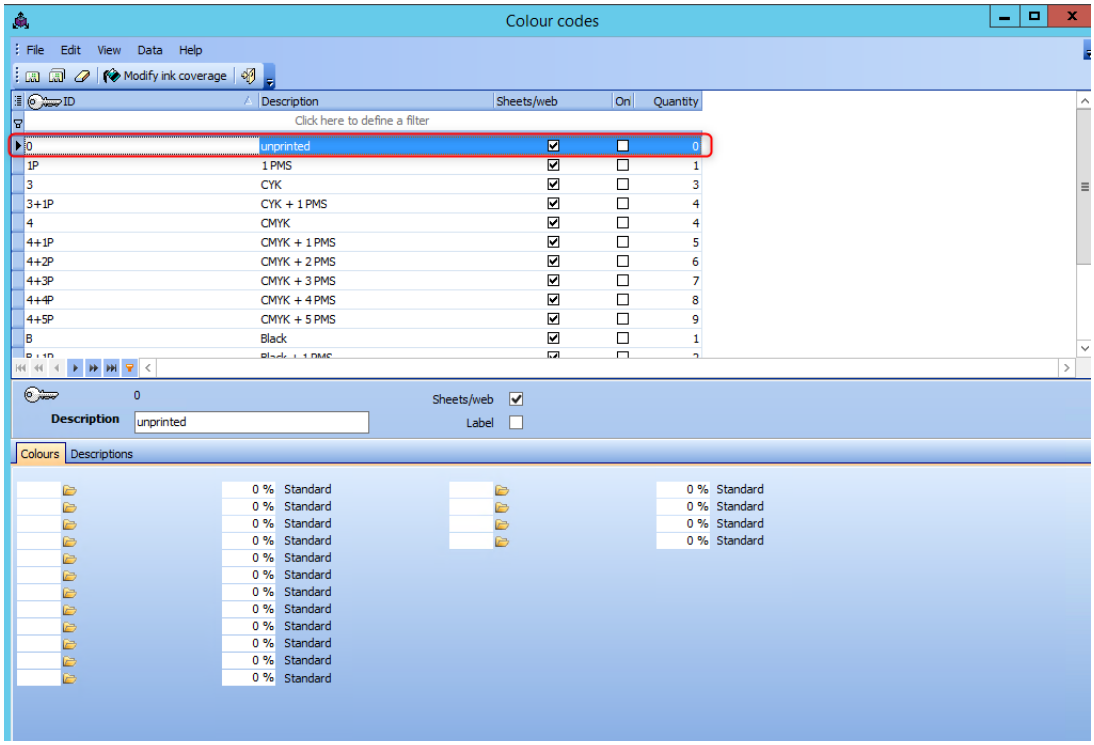
"F" is used for the image (pdf).



Add the color code "unprinted"

If product parts are unprinted, you have to add a color code without colors - unprinted, 0,...!

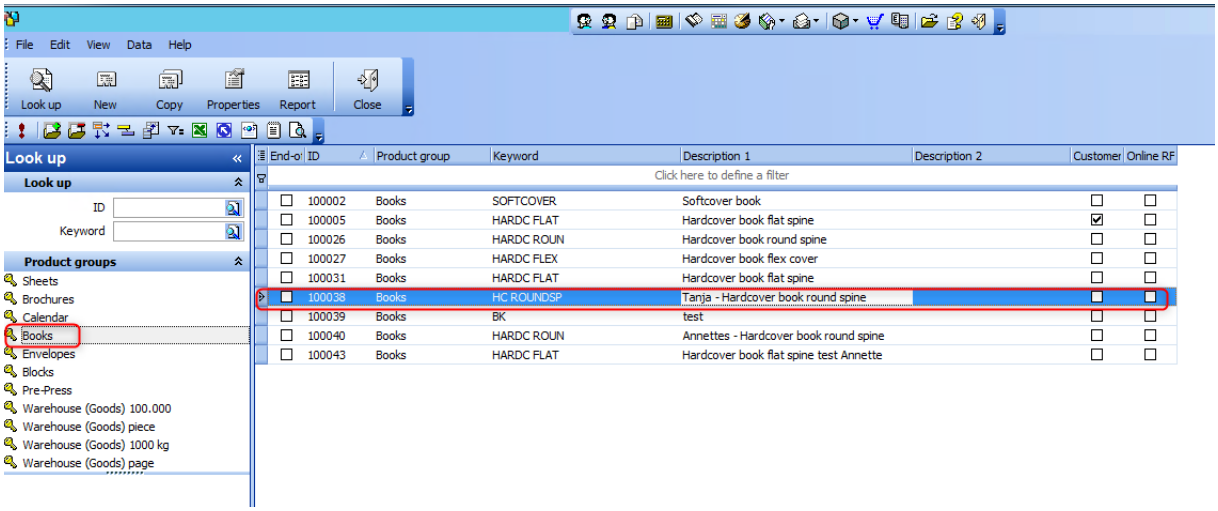
PBM explorer > Parameters > Calculation parameters > Printing parameters > Colour codes



Add the product parts

PBM explorer > Production > Product types

Select the product group "Books" and the appropriate product.
Click to "Properties" > Parts

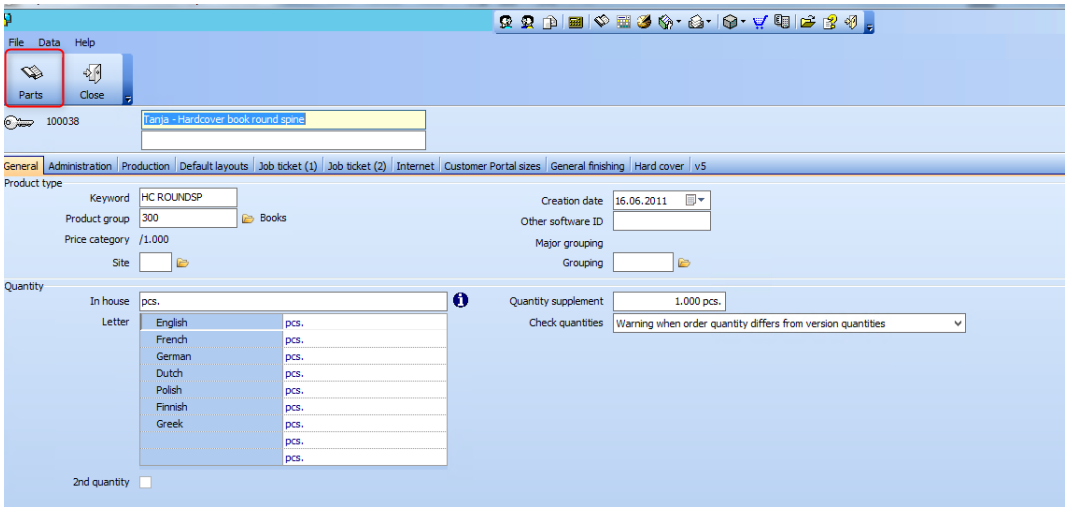


Depending on the book you will produce, different parts must be created.

All the parts need to have at least a default folding scheme.

The possible types are:

- Inner signature
- Book Cover
- Case Board
- Spine Board
- Endsheet
- Jacket



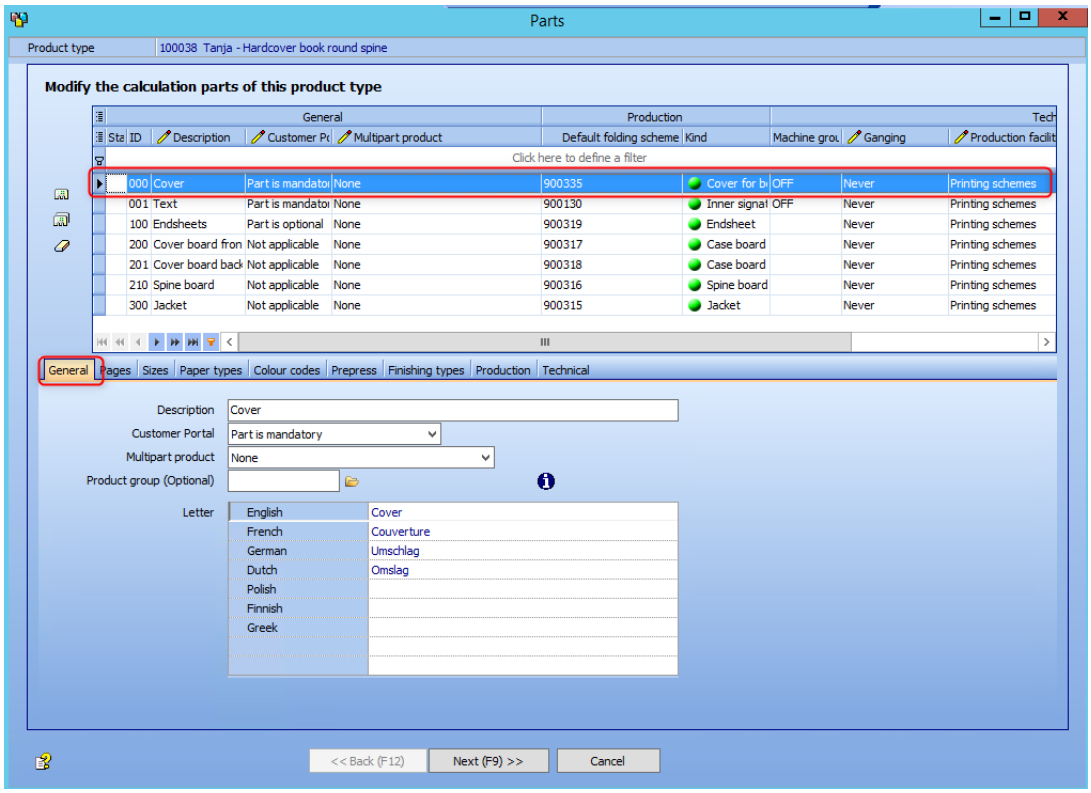
1. Cover

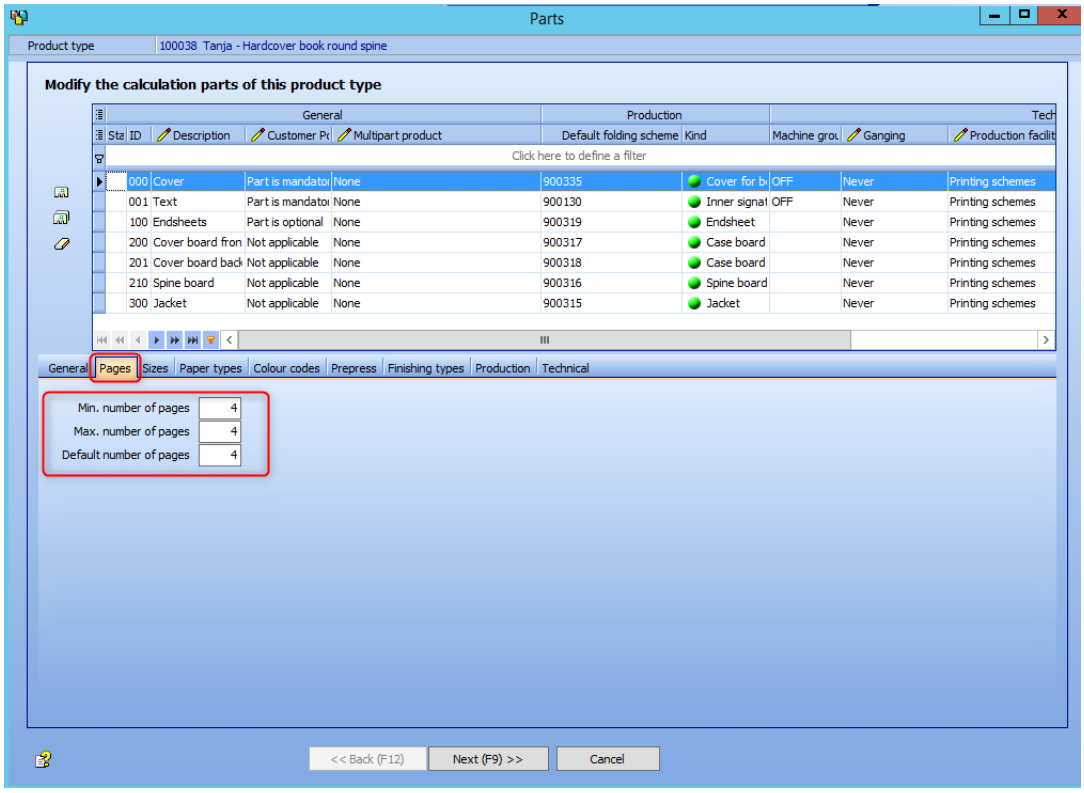
A default folding scheme for the cover is added (register tab "production").

Important is here to select "Cover for book" (register tab "production").

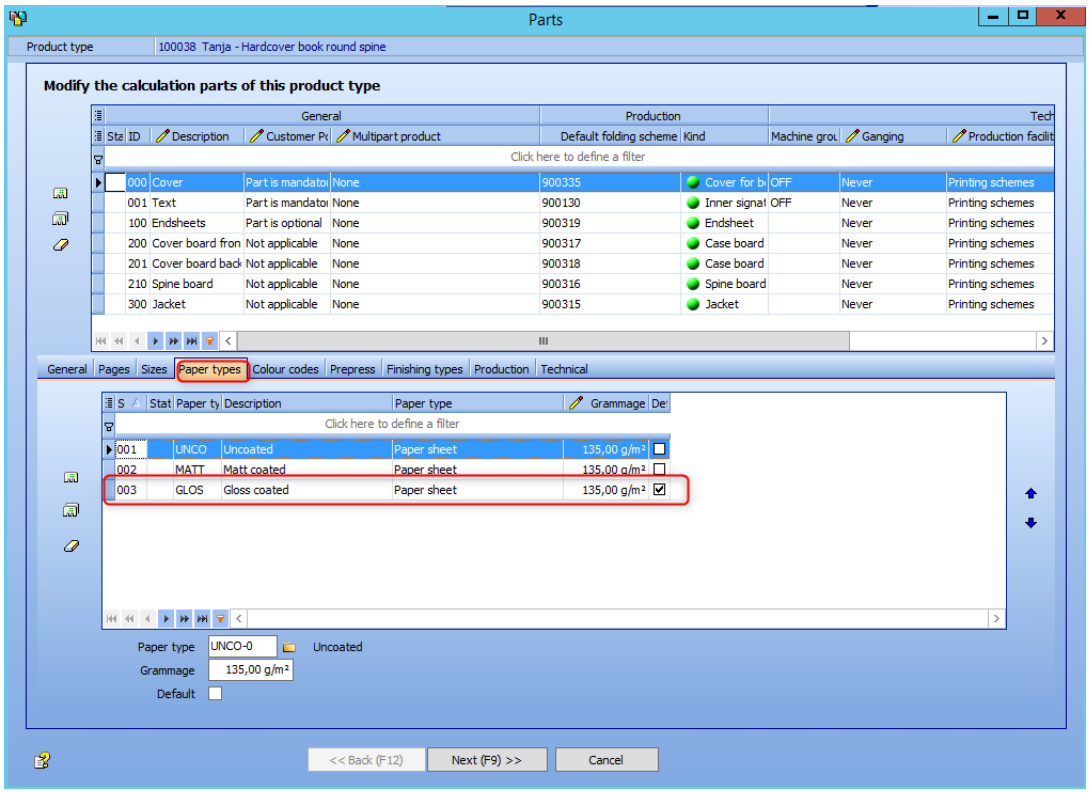
Specify a color code for the front. The back is usually not printed, because it will be glued to the case boards.

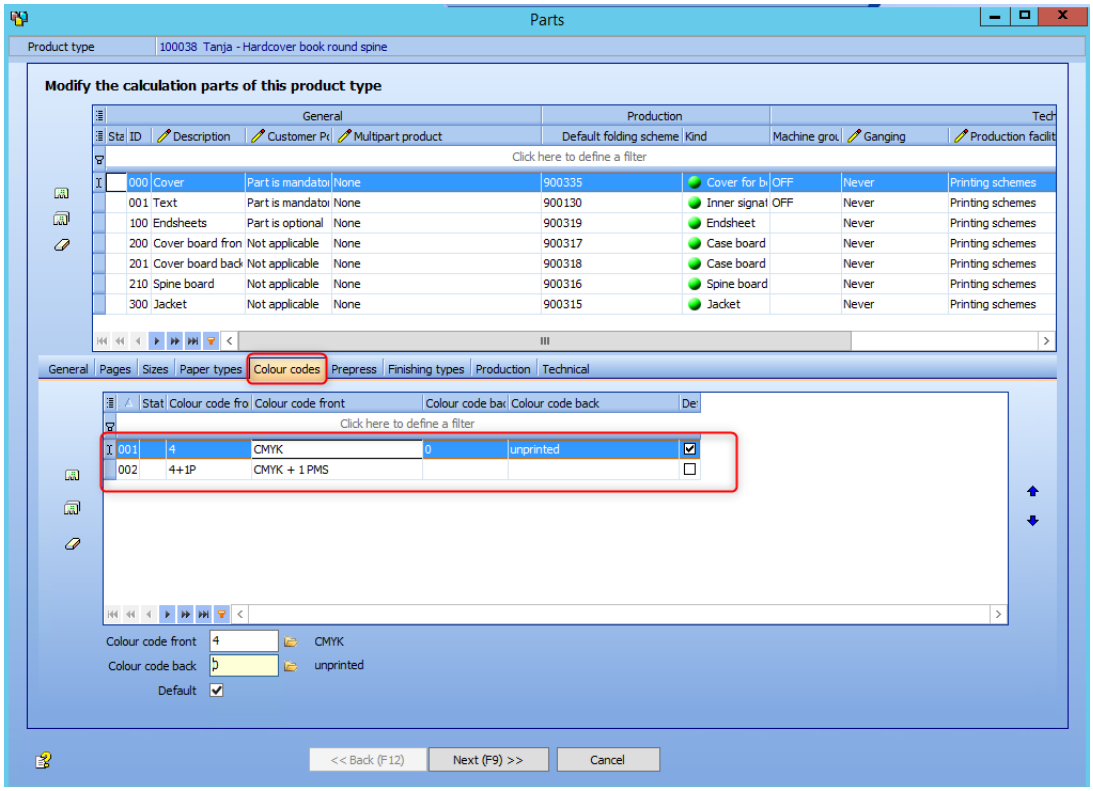
Be aware: In case for flex cover books, probably there aren't any caseboards at all and no endsheets are used neither. Here the back of the cover is printable.

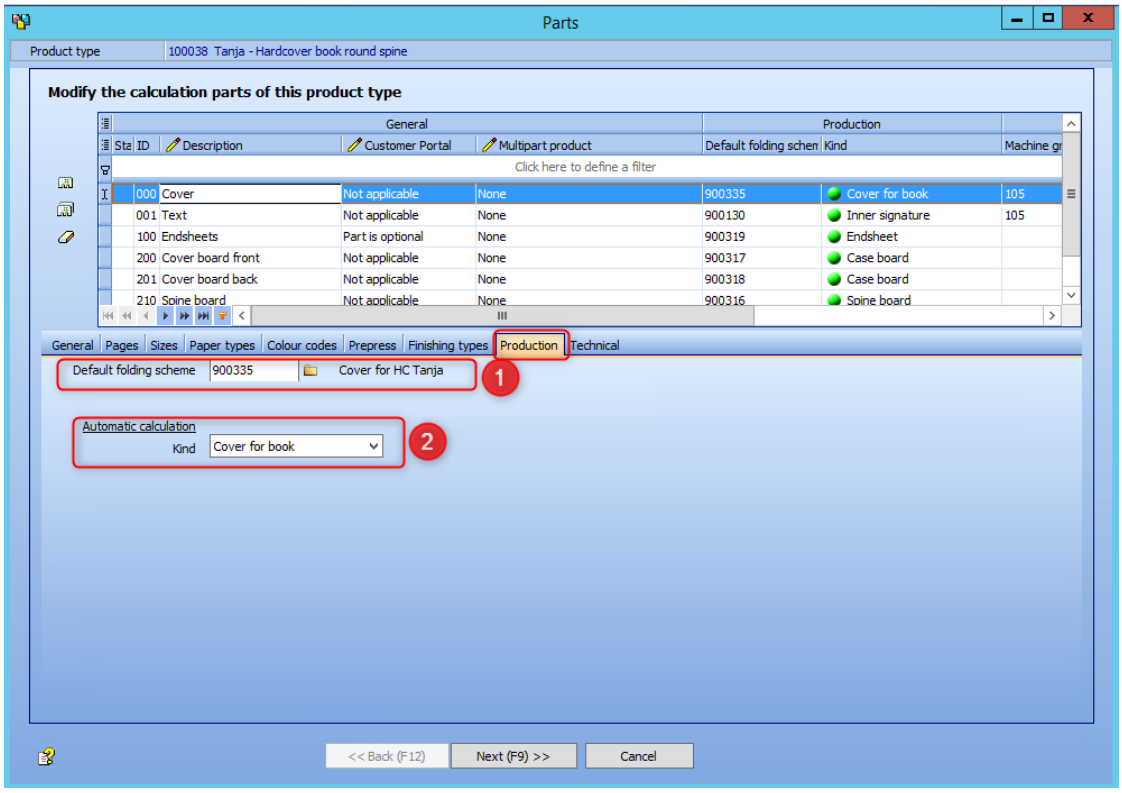


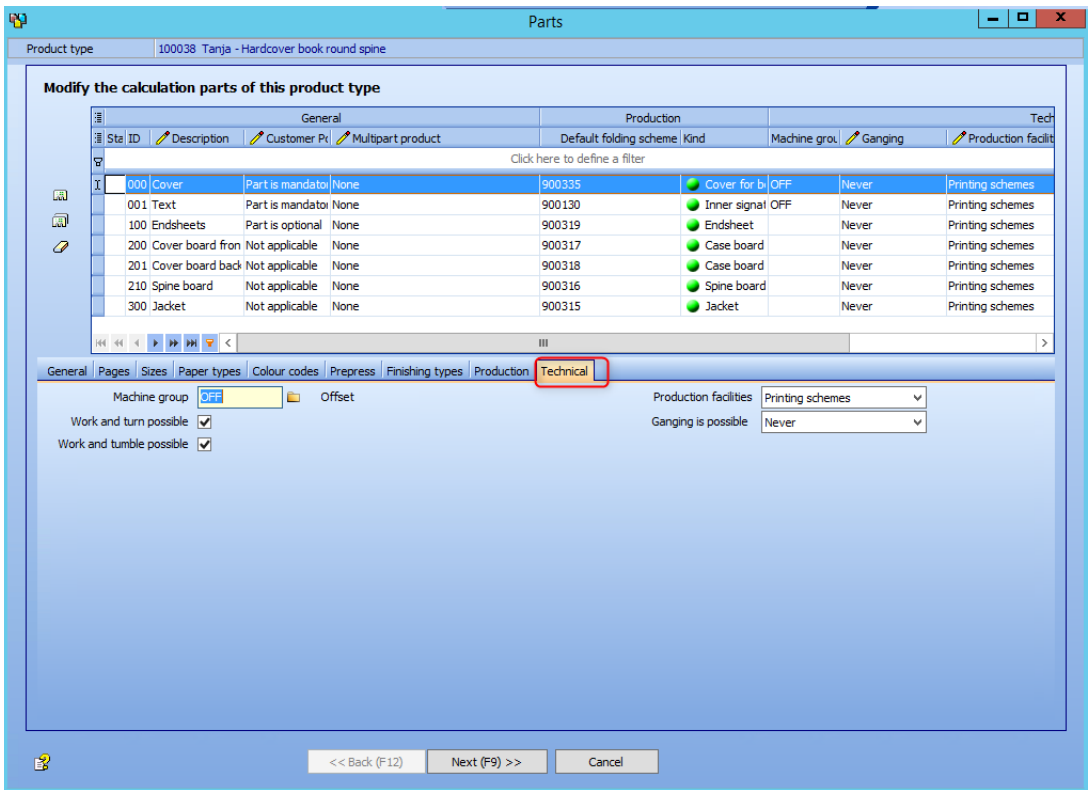

Parts
Product type
100038 Tanja - Hardcover book round spine
Modify the calculation parts of this product type
General
Production
Sta
ID
Description
Customer Pr
Multipart product
Default folding scheme
Kind
Machine grou
Ganging
Production facilit
Click here to define a filter
000 Cover Part is mandator None 900335 Cover for b OFF Never Printing schemes
001 Text Part is mandator None 900130 Inner signat OFF Never Printing schemes
100 Endsheets Part is optional None 900319 Endsheet Never Printing schemes
200 Cover board fron Not applicable None 900317 Case board Never Printing schemes
201 Cover board back Not applicable None 900318 Case board Never Printing schemes
210 Spine board Not applicable None 900316 Spine board Never Printing schemes
300 Jacket Not applicable None 900315 Jacket Never Printing schemes
General
Pages
Sizes
Paper types
Colour codes
Prepress
Finishing types
Production
Technical
Min. number of pages 4
Max. number of pages 4
Default number of pages 4
<< Back (F12)
Next (F9) >>
Cancel

Product type - Parts



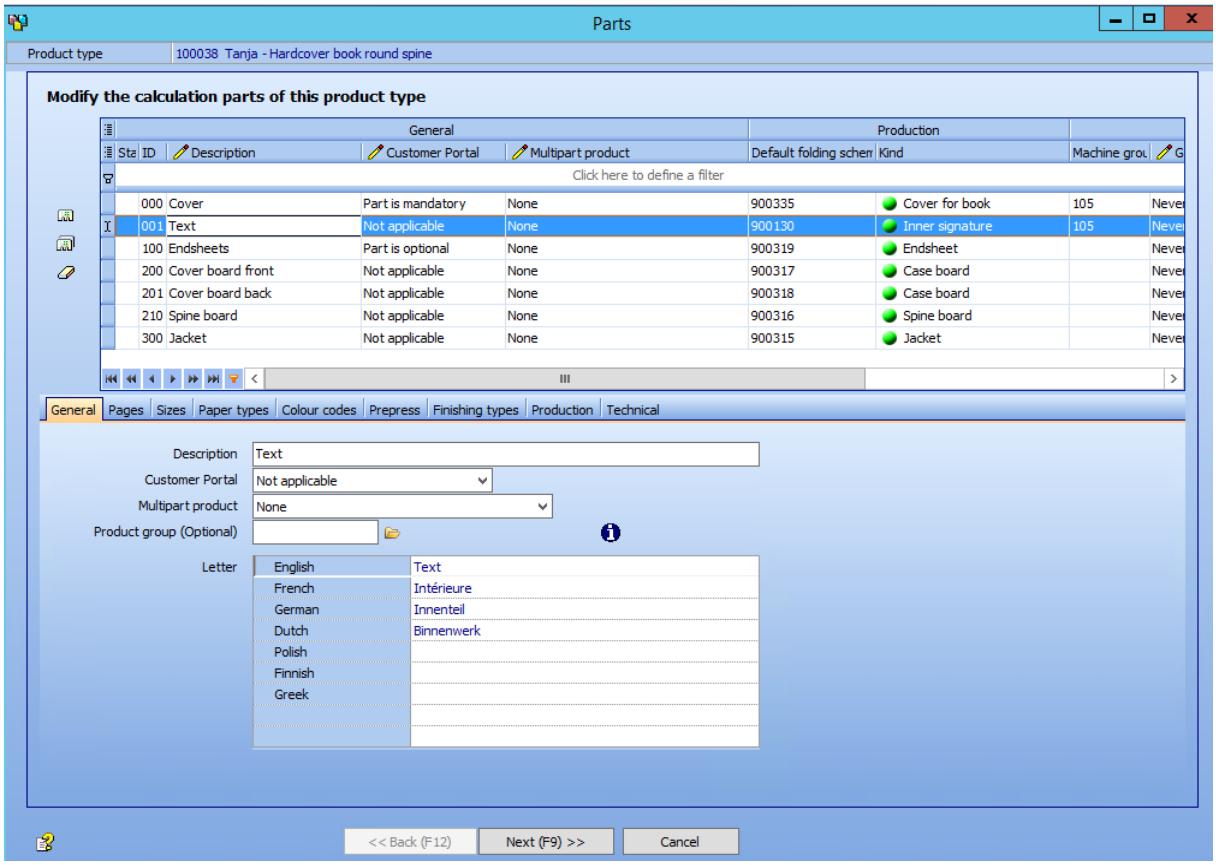



Parts
Product type
100038 Tanja - Hardcover book round spine
Modify the calculation parts of this product type
General
Production
Sta ID Description Customer Portal Multipart product Default folding schem Kind Machine gr
Click here to define a filter
000 Cover Not applicable None 900335 Cover for book 105
001 Text Not applicable None 900130 Inner signature 105
100 Endsheets Part is optional None 900319 Endsheet
200 Cover board front Not applicable None 900317 Case board
201 Cover board back Not applicable None 900318 Case board
210 Spine board Not applicable None 900316 Spine board
General Pages Sizes Paper types Colour codes Prepress Finishing types Production Technical
Default folding scheme 900335 Cover for HC Tanja
1
Automatic calculation
Kind Cover for book
2
<< Back (F12)
Next (F9) >>
Cancel


Parts
Product type
100038 Tanja - Hardcover book round spine
Modify the calculation parts of this product type
General
Production
Tech
Sta ID Description Customer Pc Multipart product Default folding scheme Kind Machine grou Ganging Production facilit
Click here to define a filter
000 Cover Part is mandator None 900335 Cover for b OFF Never Printing schemes
001 Text Part is mandator None 900130 Inner signat OFF Never Printing schemes
100 Endsheets Part is optional None 900319 Endsheet Never Printing schemes
200 Cover board fron Not applicable None 900317 Case board Never Printing schemes
201 Cover board back Not applicable None 900318 Case board Never Printing schemes
210 Spine board Not applicable None 900316 Spine board Never Printing schemes
300 Jacket Not applicable None 900315 Jacket Never Printing schemes
General Pages Sizes Paper types Colour codes Prepress Finishing types Production Technical
Machine group OFF Offset
Work and turn possible
Work and tumble possible
Production facilities Printing schemes
Ganging is possible Never
<< Back (F12)
Next (F9) >>
Cancel

1. Inners signature (Text)

The configuration is like working with brochures!



General:	Same settings as in Cover
Pages:	Min number of pages: 4/8/16.... Max number of pages: e.g. 900 Default number of pages: e.g. 192 (number of signatures are created automatically)
Sizes:	Default Size for the Speed Estimator must be given
Paper types:	Default Paper type for the Speed Estimator must be given.
Colour codes:	Colour code front: e.g. 4 - CMYK > set as a default Colour code back: e.g. 4 - CMYK > set as a default
Prepress:	Necessary processes can be added (e.g. preflight check,...) > not mandatory
Finishing types:	Necessary processes can be added (e.g. perforating,...) > not mandatory
Production:	A default folding scheme for the text must be given (e.g. X16-7, F8-7, F4-1,...) Automatic calculation > Kind: Inner Signature.
Technical:	A "Machine group" can be defined

3. Case board

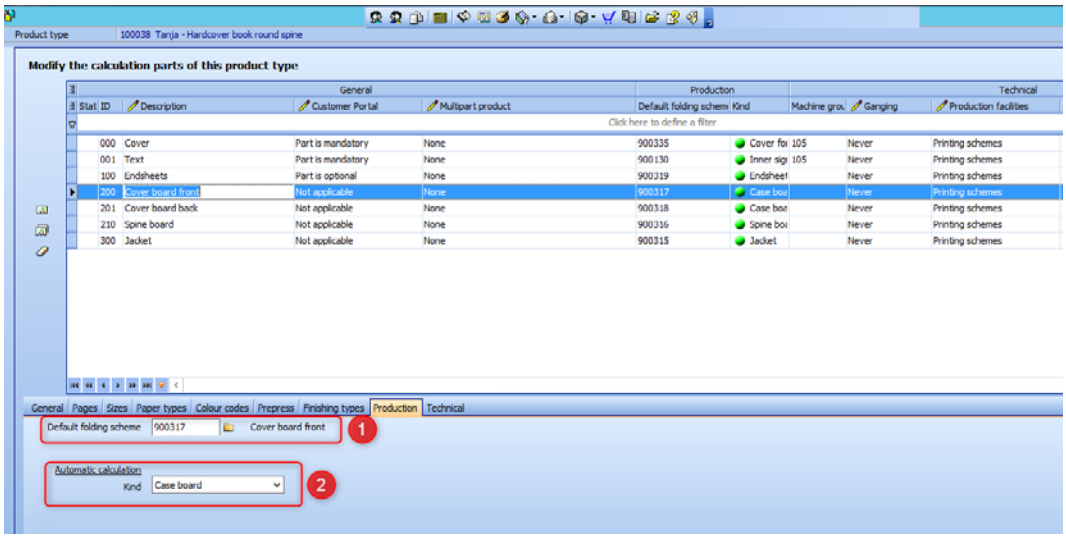
In this example the Case board is splitted in 3 parts - Case board front - Case board back - Spine! For each part, a different folding scheme must be added.

It is also possible the make the 3 parts (Caseboard front/back, Spine) together, only one folding scheme is needed. This depends on the way of working.

Specify one default papertype for carton and grammage.

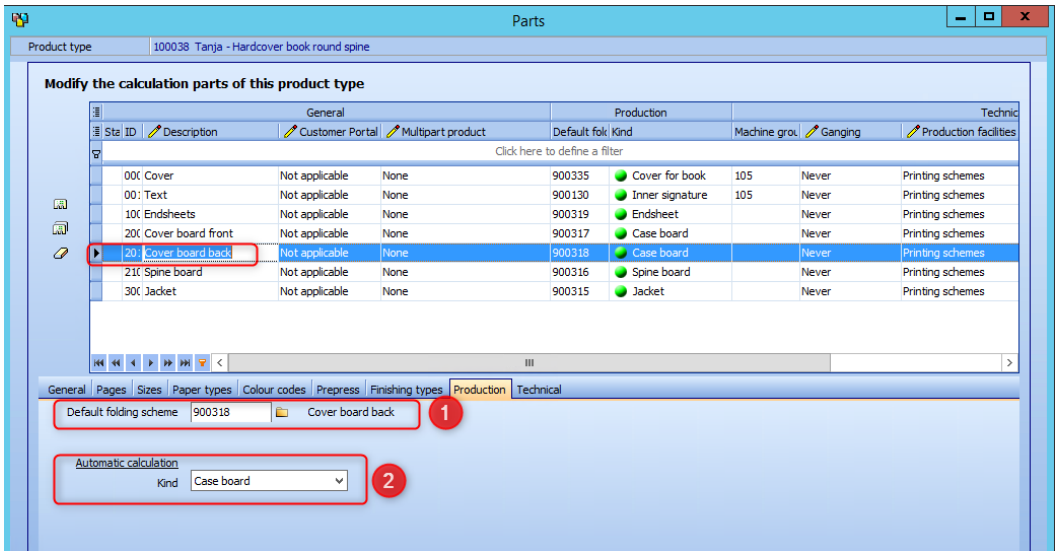
(1) A default folding scheme for the Case board front is added

(2) Important is here to select "Case board".



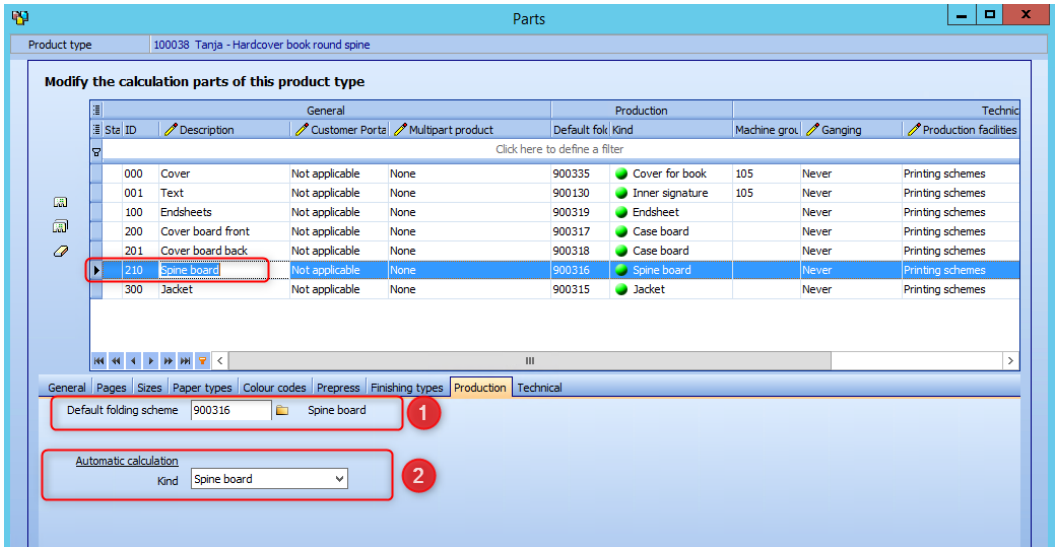
General:	Same settings as in Cover
Pages:	Min number of pages: 2 Max number of pages: 2 Default number of pages: 2
Sizes:	Default Size for the Speed Estimator is not mandatory. It is automatically calculated because of the predefined settings.
Paper types:	Default Paper type (carton) for the Speed Estimator must be given.
Colour codes:	Colour code front: unprinted Colour code back: unprinted or leave it empty
Prepress:	-
Finishing types:	Necessary processes can be added (e.g. perforating,...) > not mandatory
Production:	A default folding scheme for the text must be given (e.g. F2-1, F4-1) Automatic calculation > Kind: Case board.
Technical:	No "Machine group" is defined.

Product type - Parts



The caseboard back has exactly the same configurations as the caseboard front.

(1) A default folding scheme for the Case board back is added
(2) Important is here to select "Case board".



The Spine Board has exactly the same configurations as the caseboard front/back.
(1) A default folding scheme for the Case board back is added
(2) Important is here to select "Spine board".

4. Endsheet

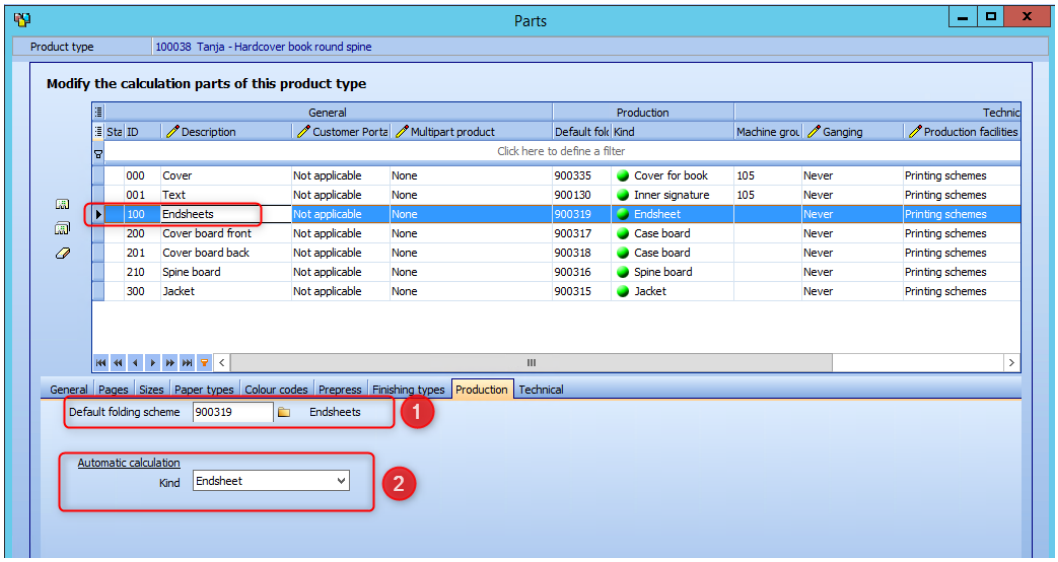
(1) A default folding scheme for the Endsheet is added

(2) Important is here to select "Endsheet".

Specify a color code for the front. The back can be empty.

One side of the page is glued to the caseboard, the other page is glued along the spine to the book block.

Be aware: The number of Endsheets must have 8 pages.



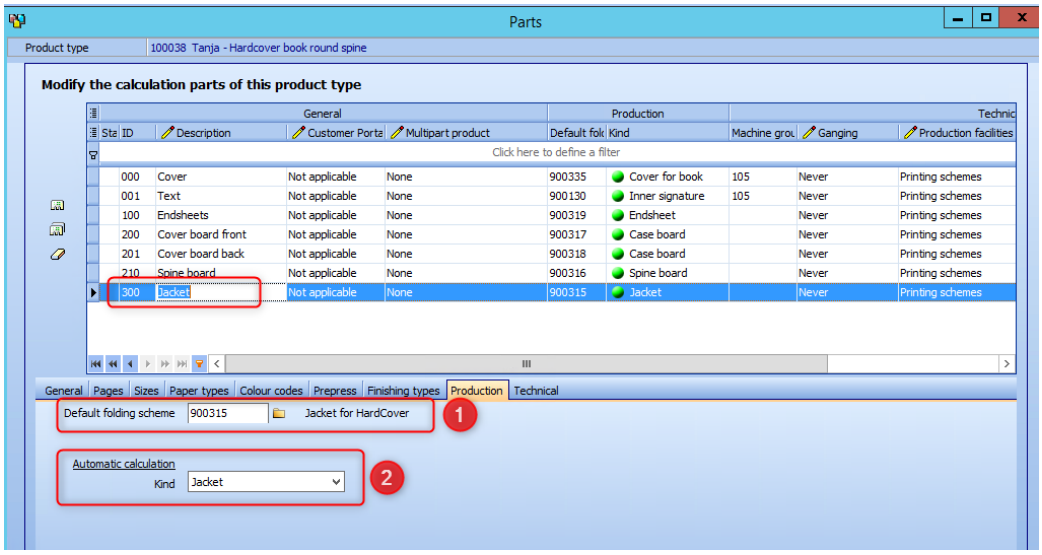
General:	Same settings as in Cover
Pages:	Min number of pages: 4 Max number of pages: 4 Default number of pages: 4
Sizes:	Default Size for the Speed Estimator is not mandatory. It is automatically calculated because of the predefined settings.
Paper types:	Default Paper type for the Speed Estimator must be given.
Colour codes:	Colour code front: unprinted or e.g. 4 - CMYK Colour code back: unprinted or leave it empty
Prepress:	Necessary processes can be added (e.g. preflight check,...) > not mandatory
Finishing types:	Necessary processes can be added (e.g. perforating,...) > not mandatory
Production:	A default folding scheme for the Endsheet must be given (4 pages) Automatic calculation > Kind: Endsheet.
Technical:	If necessary, a machine group can be defined.

4. Jacket

(1) A default folding scheme for the Jacket is added

(2) Important is here to select "Jacket".

A paper type with grammage and color codes should be specified.
Usually the jacket is printed only on the front.



General:	Same settings as in Cover
Pages:	Min number of pages: 4 Max number of pages: 4 Default number of pages: 4
Sizes:	Default Size for the Speed Estimator is not mandatory. It is automatically calculated because of the predefined settings.
Paper types:	Default Paper type for the Speed Estimator must be given.
Colour codes:	Colour code front: 4 - CMYK Colour code back: unprinted or leave it empty
Prepress:	Necessary processes can be added (e.g. preflight check,...) > not mandatory
Finishing types:	Necessary processes can be added (e.g. perforating,...) > not mandatory
Production:	A default folding scheme for the Jacket must be given Automatic calculation > Kind: Jacket.
Technical:	If necessary, a machine group can be defined.

Configuration steps of the Product type

PBM explorer > Production > Product types

Select the product group "Books" which includes the new product type "Hardcover books".

Select an existing product or copy/create a new one.

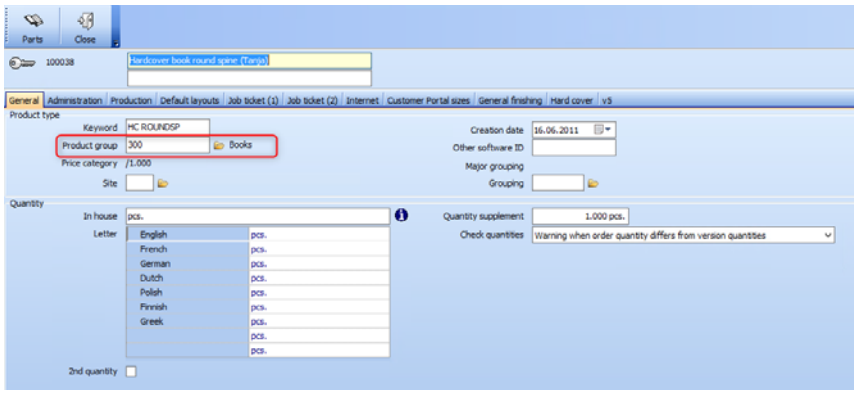
Be aware: For each combination of book production you need an additional product type.

For example "Hard cover with a flat spine", "Hardcover with a round spine",...!

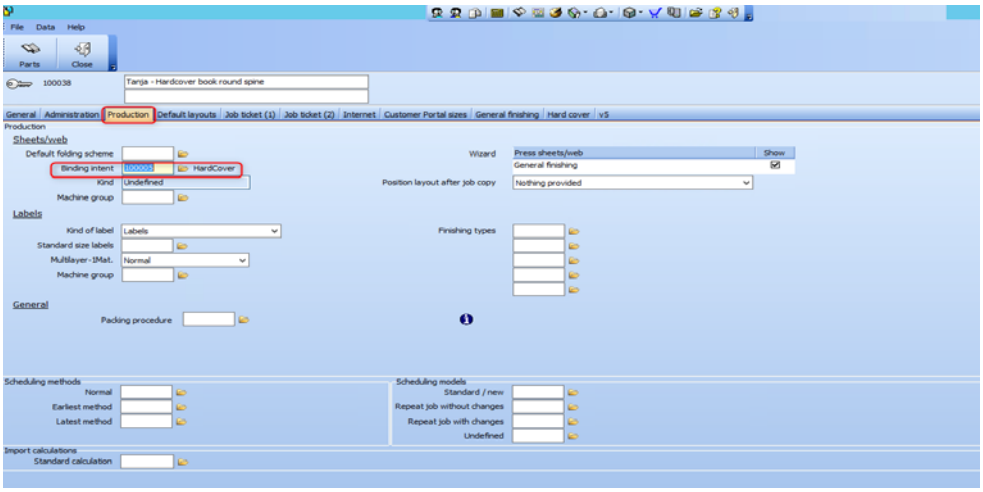
Click "Properties" > General.

An extra tab is added to the properties of the product type.
This is only visible if the kind of the product group is "hardcover book".

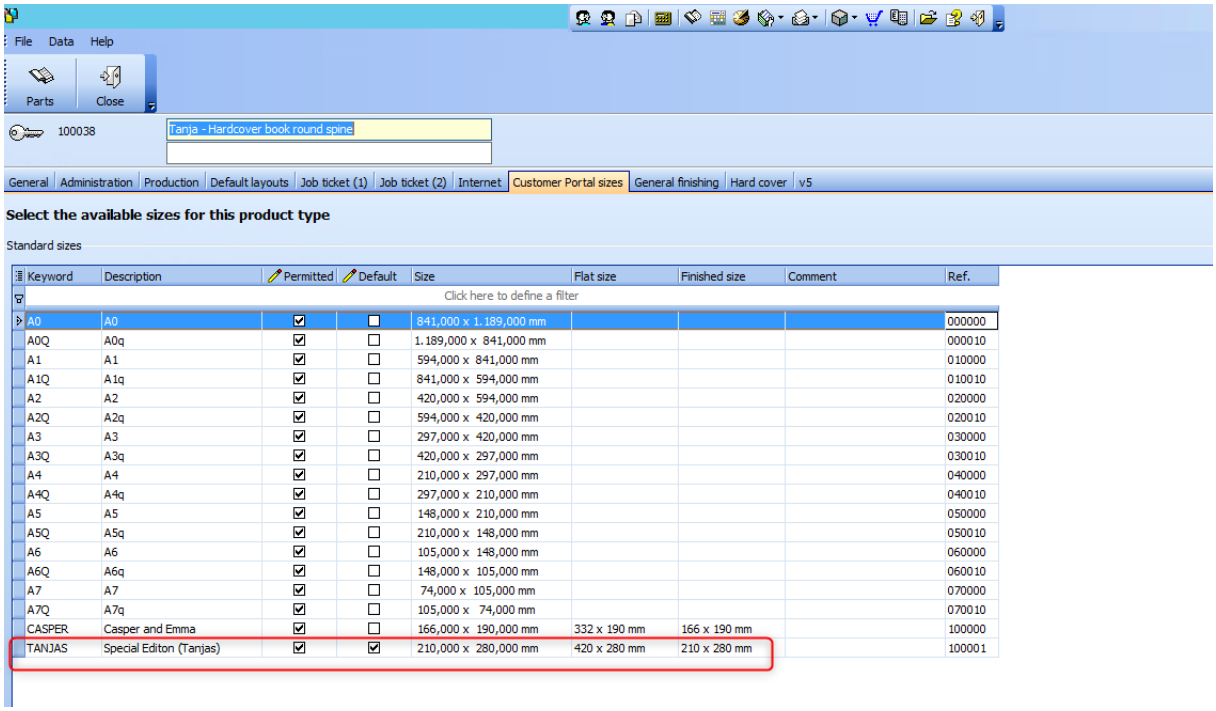
In the part "Product group" you have to select "Books".



Change to the registercard "Production" and select the BindingIntent "HardCover".



Change to the registercard "'Customer Portal"



One size must be add as a default.
Hard Cover can currently only be produced via the Speed Estimator.
This does not use the dimensions of the "product parts", but the dimensions of the "product type properties" from the Customer Portal sizes.

Change to the registercard "General finishing".

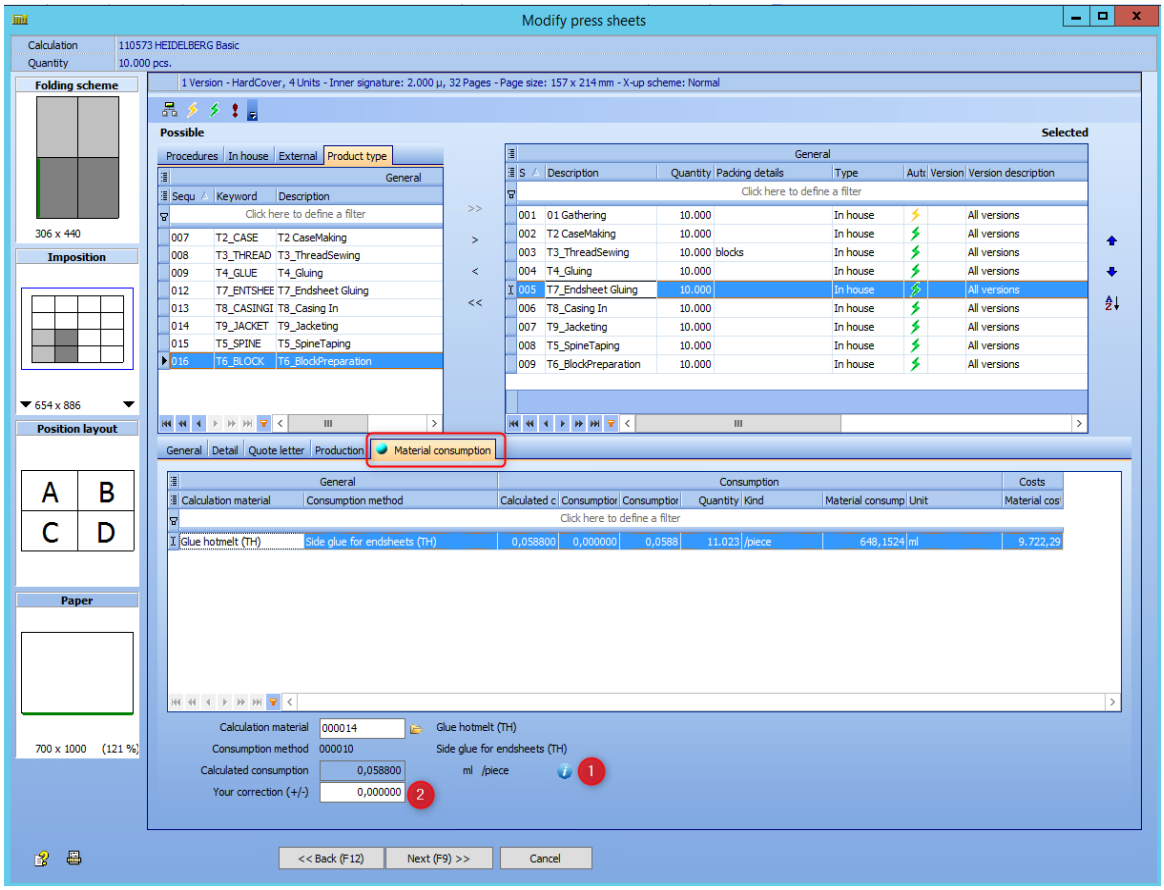
Additonal general finishing processes without a "BindingIntent" can be added/activated here.

This general finishing processes can be added manually in the estimation.

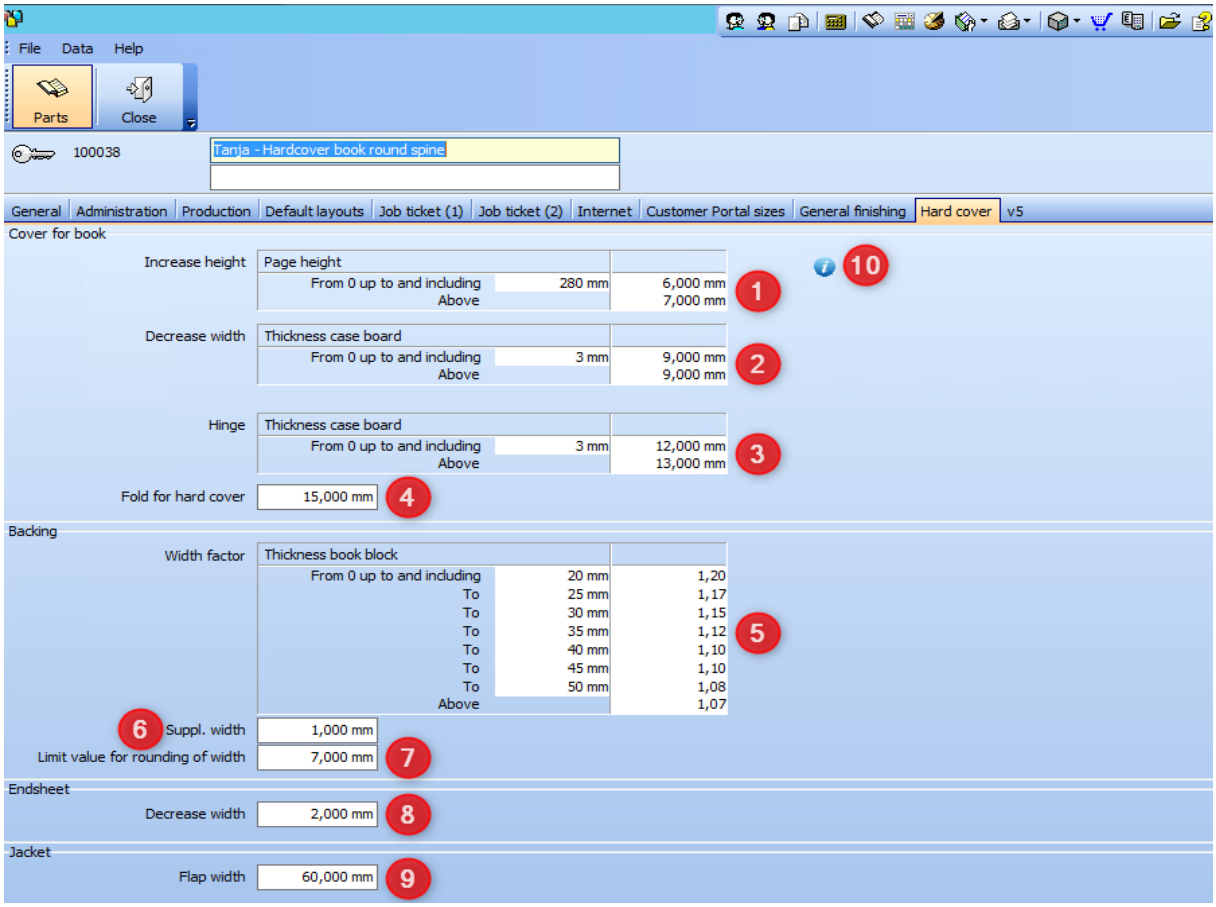
The processes must be set as a "default", that they automatically available to manually select in the SpeedEstimator.

Be aware: Here you can add all finishing processes, which have **no** "Binding Intent"!

Don’t select "gathering" in here. This will be added automatically by the Prinect Business Manager in the estimation.



Change to the registercard "Hard cover".



(1) How many mm the **book cover** is higher than the **book block**. Usually the value is 6 mm.
3 mm for the case board at the top and 3 mm for the case board at the bottom.
Example:
Size of the book block: 210 mm x 280 mm / Size of the book cover height: 286 mm.
In this case, the PBM takes from 0 up to and including 280 mm (height) additional 6 mm.
If the book block is 281 mm or higher, than 7 mm are taken.

(2) Thickness of the case board in relation to the thickness of the inner part.
Usually the value is 6 mm.
The case board is positioned directly after the hinge. In this example we have a width of the case board from 204 mm. An additonal screenshot in the next page (figure 1/figure 2 - page 53/54) will describe the way how it is calculated.

(3) Width of the hinge. This value is depending on the thickness of the case board.

In this example from 0 to 3 mm thickness of the caseboard, the hinge size is 12 mm. Above 3 mm it is 13 mm.

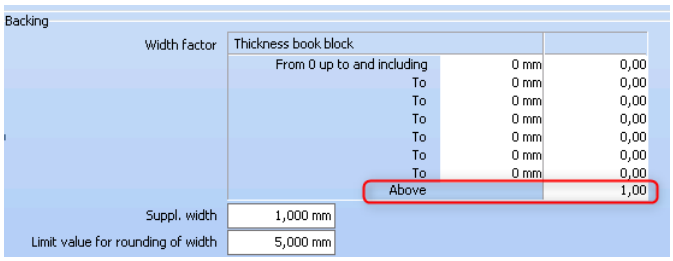
(4) How much the cloth covering (coating material of the caseboard) is larger than the book cover.

(5) Backing = calculation formula for the depth of the spine back rounding.
The thicker the book, the deeper the rounding.

Calculating the thickness of the book block
- Thickness of the paper is calculated from the papertype and grammage.
- Thickness of the book block = Paper thickness (number of pages/2)

Thickness of the book block	Factor
< 20 mm	1,20
< 25 mm	1,17
< 30 mm	1,15
< 35 mm	1,12
< 40 mm	1,10
< 45 mm	1,09
< 50 mm	1,08
< 60 mm	1,07

For a flat spine the default is 1!



Width factor = Size factor.
This factor indicates how much the round distance is longer than the straight line.

(6) Supplement width = How many mm will be added to the spine.
Suggested values are 0 mm or 1 mm.

(7) Limit value for rounding of width = Up to this value is rounded up to half a millimeter, then to full mm. Be aware, it is always rounded up.

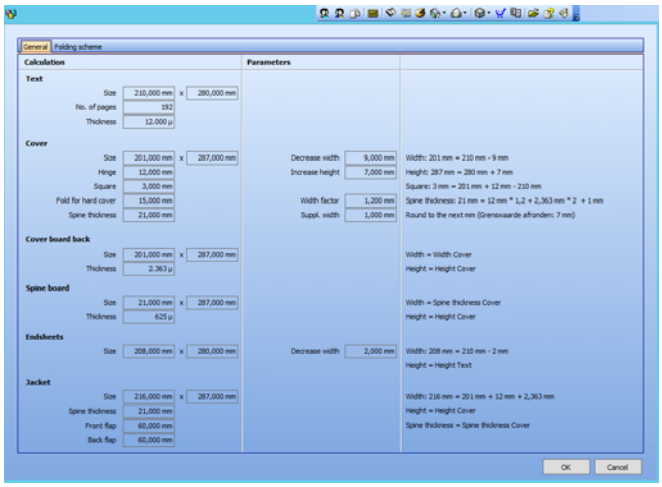
E.g. Limit value for rounding of width is 7 mm. When the width is < 7 mm, the it is rounded to the next half mm, otherwise to the next mm.

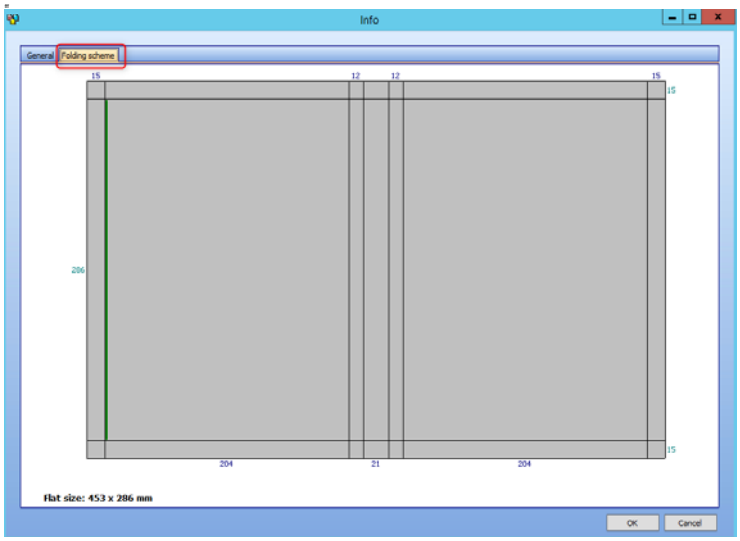
(8) Endsheet front/back. Shorten the width of the endsheet by the given value in mm.

(9) This value will give you the width of the flap at the jacket.

(10) The Info Button give you a detailed overview about the dimensions of the hardcover.

Square = Is the length that the book cover stands out from the inside (see the example in figure 2 = 6 mm - page 44)





The registercard *"Folding scheme"* gives Informations about
- the values of the width of the cardboard front/left (204 mm)
- the height of the cardboard (286 mm)
- the spine (21 mm)
- the hinge (12 mm)
- the fold for the hardcover > the coating material (15 mm) on the top/bottom/left and right side,
- the flat size of the hardcover (453 x 286 mm)
- the green line gives you the grain direction of the paper/carton.

The grain direction should always be selected parallel to the back.

Additonal explanations to page 40-42

Figure 1 is intended to show how a hardcover envelope is structured in principle.

- Caseboard front/back

The height of the case board is a bit larger and the width is a bit smaller.
The size of the case board front/back is always the same.

- Spine
- Hinge
- Fold for hardcover

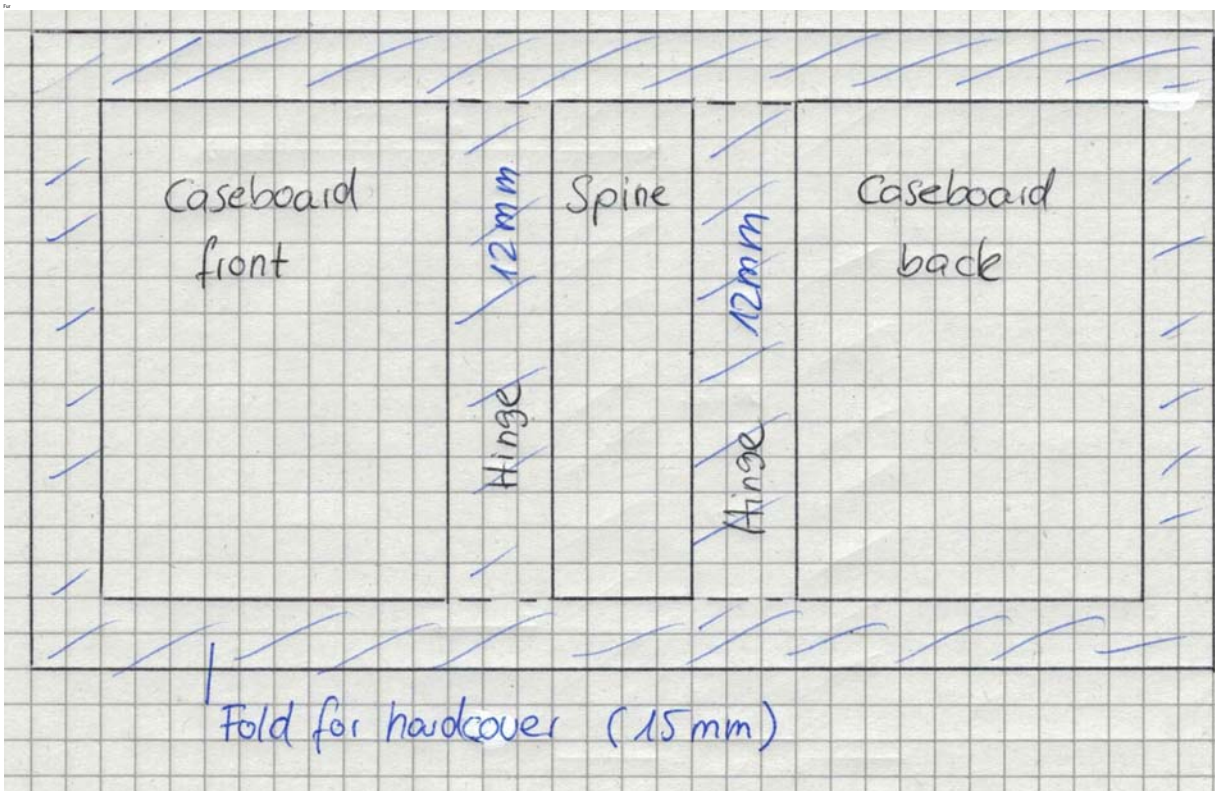


Figure 1

Figure 2 the inner part (the book block) is added. The book block (drawn in red) moves directly to the spine. In the example the book block has a width from 210 mm.

The width of the case board front/back is minimized by 6 mm (value is given in the settings for the hardcover in the previous screenshot) up to a width of 210 mm.

In this case, the case board front/back has a width of 204 mm.

The case board starts right after the hinge.

Case board front/back of 204 mm + Hinge 12 mm = 216 mm.

With this values, the book block ends 6 mm before the case board.

The width of the cardboard from the finished book is 6 mm more than the book block.

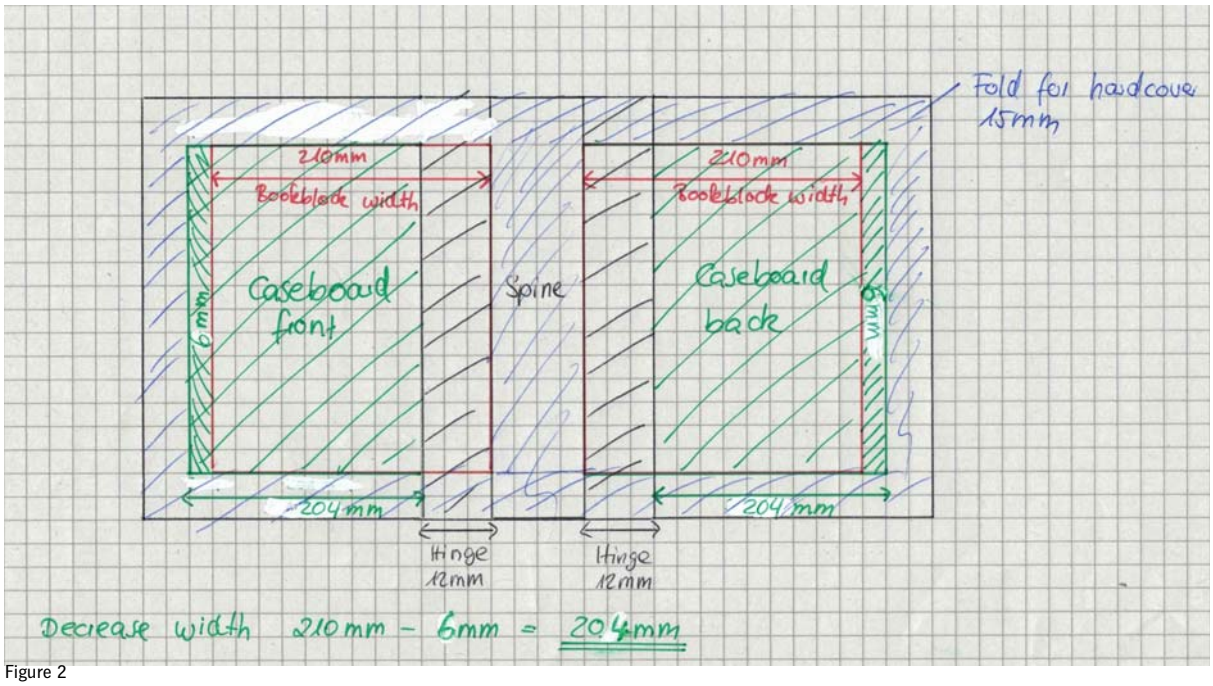
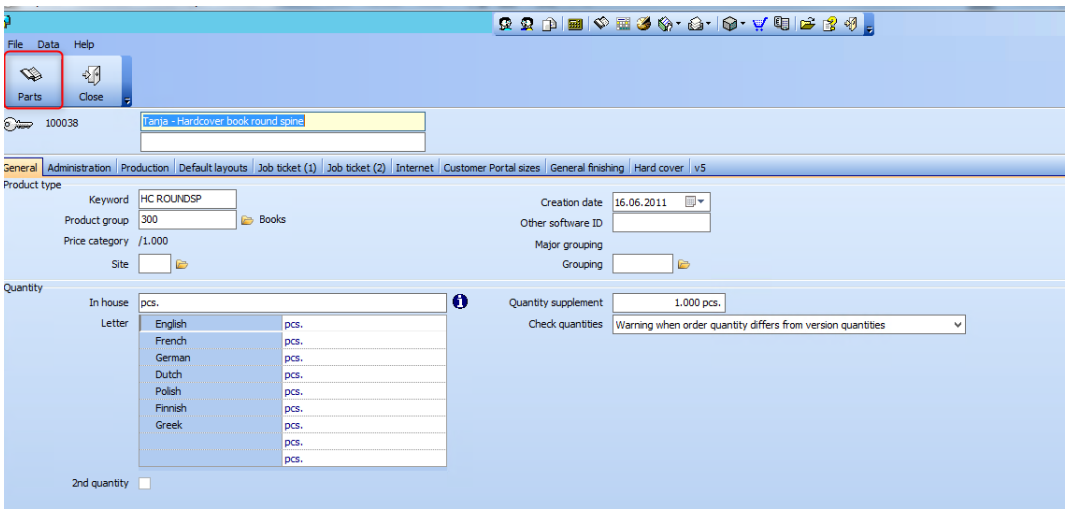


Figure 2



Allows to import pdfs choosing between single/ multiple pages per section

7.21

For certain folded sheets, the pdf is delivered as a single page (instead of a multi-page spread). For example a cover with perfect binding.

If the layout is planned as a multi-page, but a one-page pdf is provided, additional manual prepress intervention is required to accommodate this.

The estimator/planner in the Prinect Buiness Manager should be able to indicate for folded sheets whether the pdf is delivered as a "multiple side document" or as a "one side document".

In Prinect Signastation there is a checkbox to indicate that there is 1 image for the whole folding scheme. It is called "Single page for folding scheme".

Details in the JDF:
In addition to the FoldCatalog, the BinderySignature for a folded sheet to be delivered as a pdf page also contains SpreadType = "SinglePage" to signal that only one page of the RunList is "consumed".

For example, Cover of a booklet:

<BinderySignature BinderySignatureType = "Fold" FoldCatalog = "F4-1" SpreadType = "SinglePage">

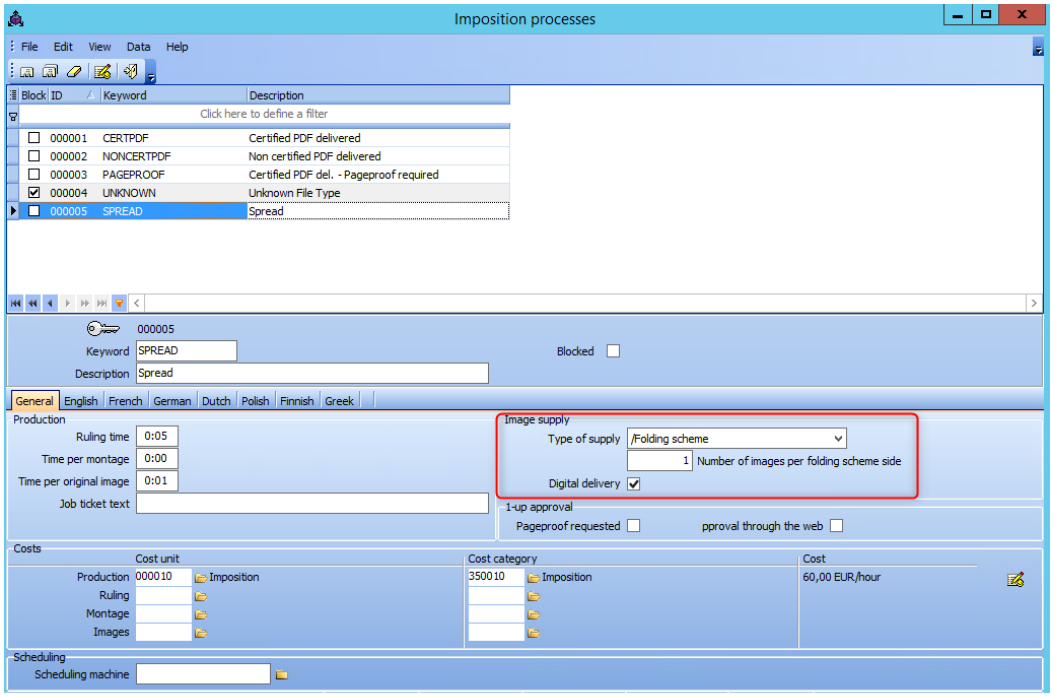
Acceptance:

The Prinect Business Manager operator can specify "PDF as a page"

Prinect Signastation takes this into account.

PBM explorer > Parameters > Calculation parameters > Sheets/web parameters > Imposition processes

In the Prinect Business Manager there is a list of possible workflows for the way the pdfs (layouts,...) are delivered to the print shop. This configuration is called "Imposition processes".



For a "Spread" the configuration is:

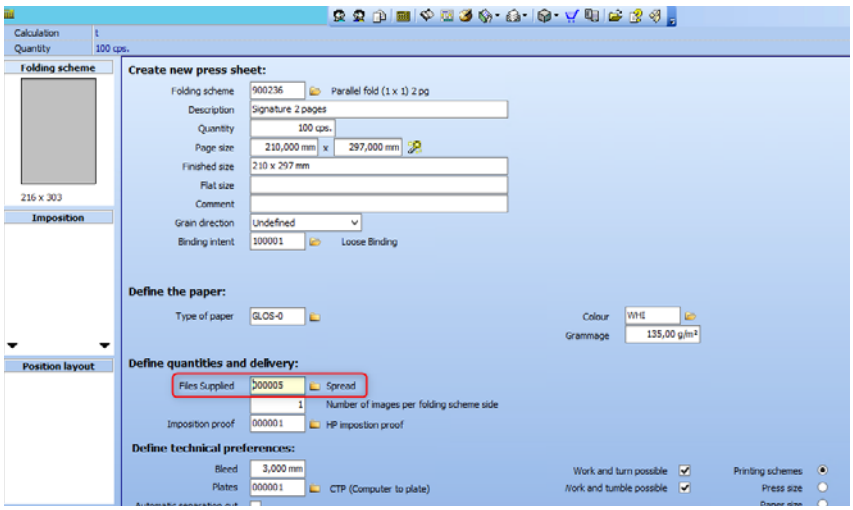
a. Type of supply = /Folding Scheme

b. 1 image per folding scheme side

Add this configuration in the Product Part e.g. cover.

In the print sheet calculation an imposition process can be indicated in the field "Files Supplied".

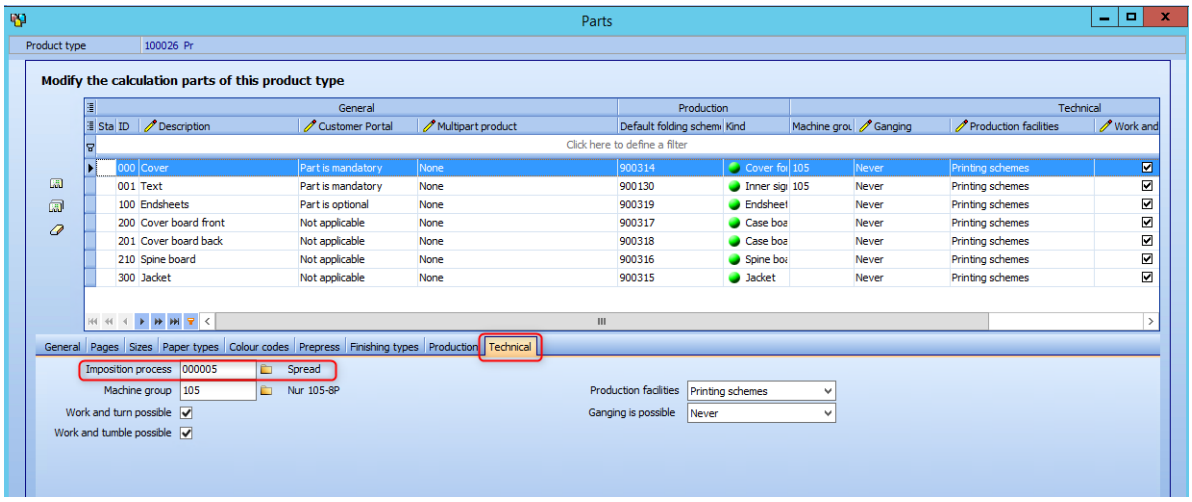
But this is not mandatory. The field can be empty.



PBM explorer > Production > Product types > Books > Parts > Technical

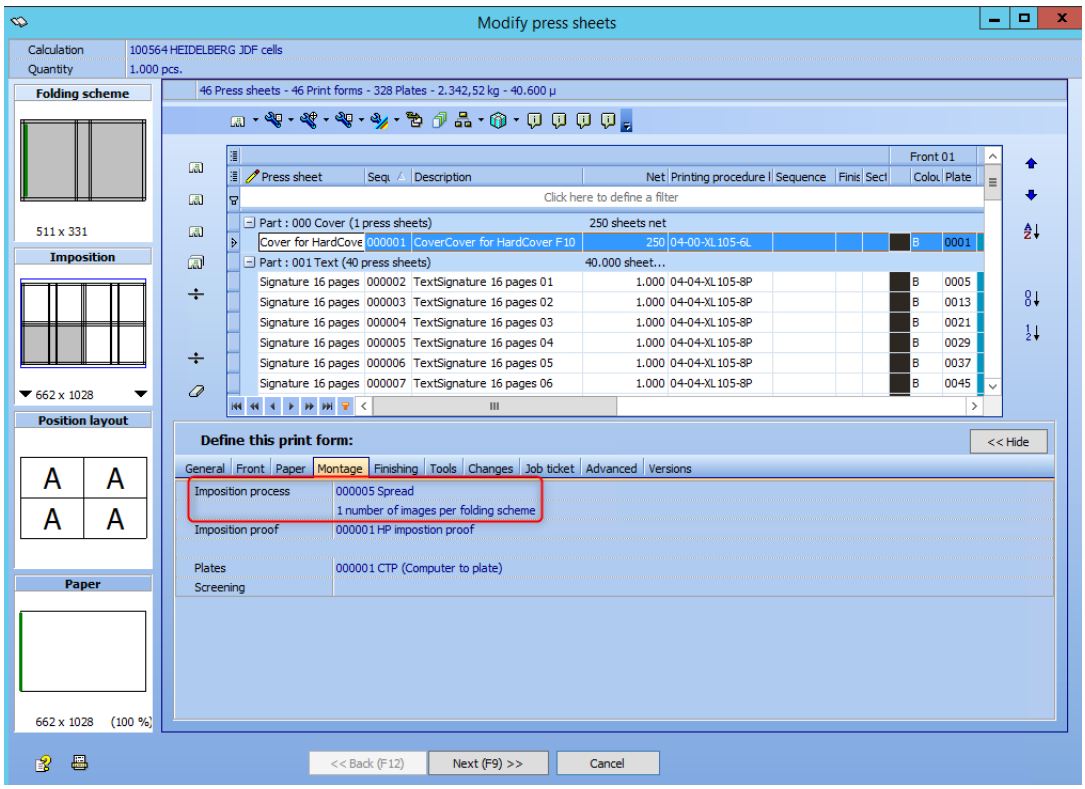
The default imposition process can be configured in the product type part.

In this way of configuration, only the cover/or only the jacket can be indicated to be a spread and the rest an image per side of a page.



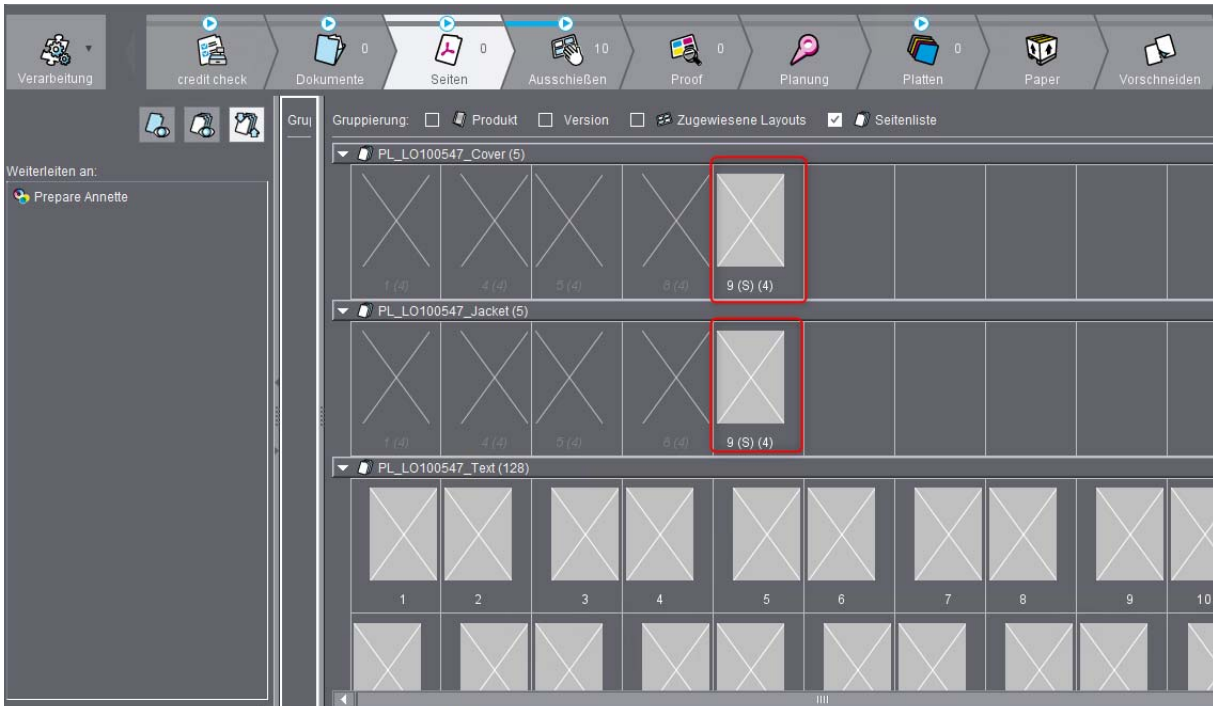
The default value of the product type part overrules the value for the customer and the general default value.

When creating a new print sheet, the right value will be presented. Also creating print sheets using the SpeedEstimator calculates the right default value.



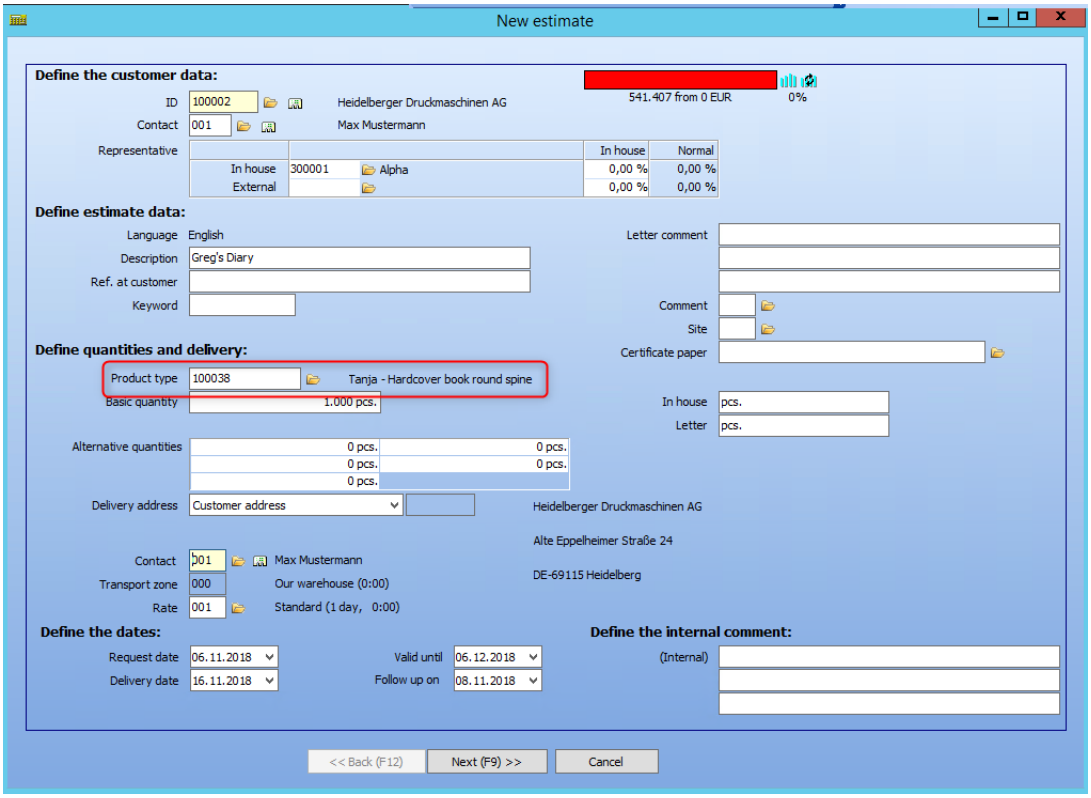
Single or multiple pages per section import pdf (New in Version 7.21)

In this example, Spread is added in the Cover and in the Jacket.



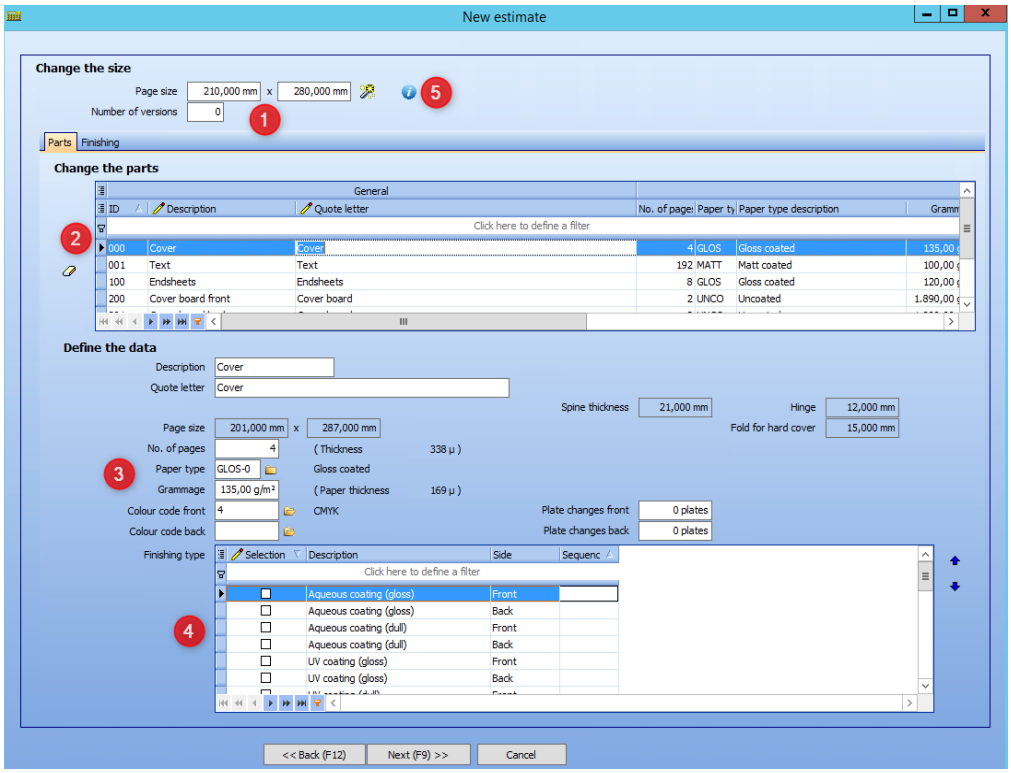
How to make a hardcover book estimation?

Start an estimate with the Speed Estimator > Estimate > File > New > Quick commercial print quote



Important is to define as a "product type" the configured hardcover book!

Go further by pressing "Next (F9)".



(1) Page size: Is taken from the "default" value of the Speed Estimator. The size can be changed here.

The change of the page size will influence all the other relevant parameter as:
Cardboard front/back, Spine, Jacket, Endsheets. Versions can be added.

(2) All defined product parts are available here with the pre-defined values (No. of pages, Paper type, grammage, colours,...).

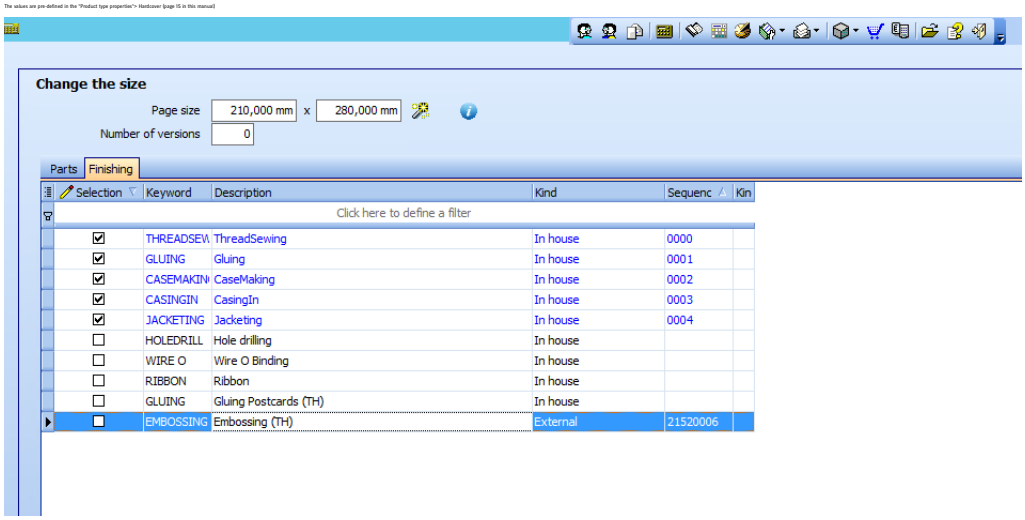
Product parts that are not needed for production can be deleted via the rubber.

(3) This are the pre-defined values from the product parts. The parameters can be changed here.

(4) Additonal finishing types can be added to the estimation (e.g. aqueous coating).

(5) Info-Button

Go further by pressing "Next (F9)".

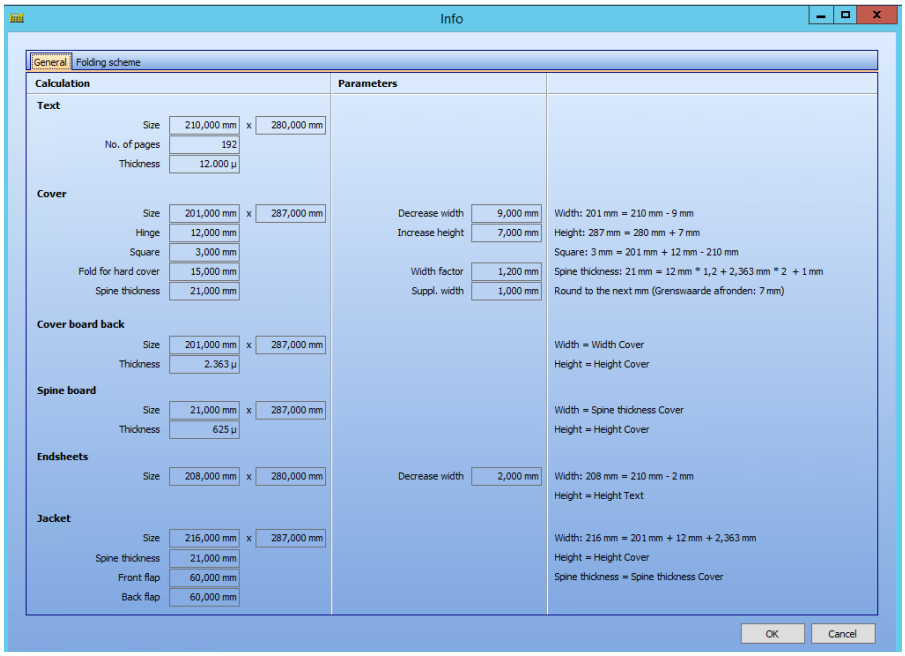


The blue finishing processes show the already predefined processes in the product type.

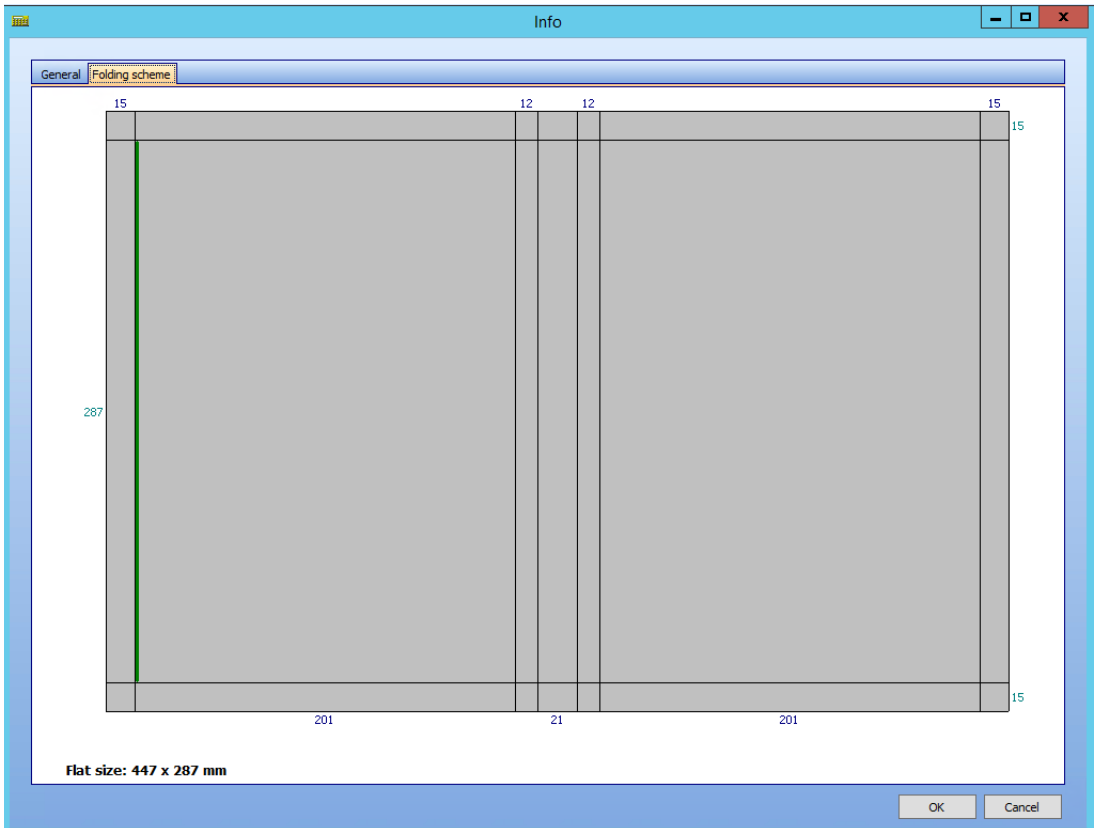
They are without a "Binding Intent"!

E.g a Ribbon could now be manually added to the calculation.

(5) This Info-Button shows all relevant parameters based on the settings in the "Product type properties".

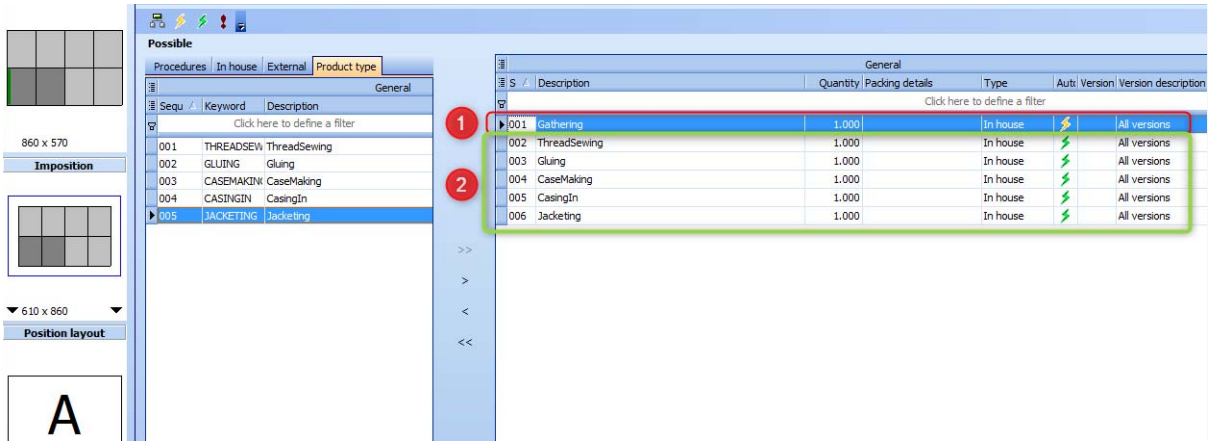


The folding scheme shows the measurement of the cover with the given page size.



(1) Gathering will be automatically added to the estimation (yellow flash).

(2) The other finishing processes are in because of the configuration in the "product type" (green flash).

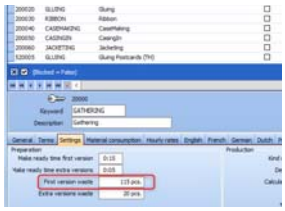


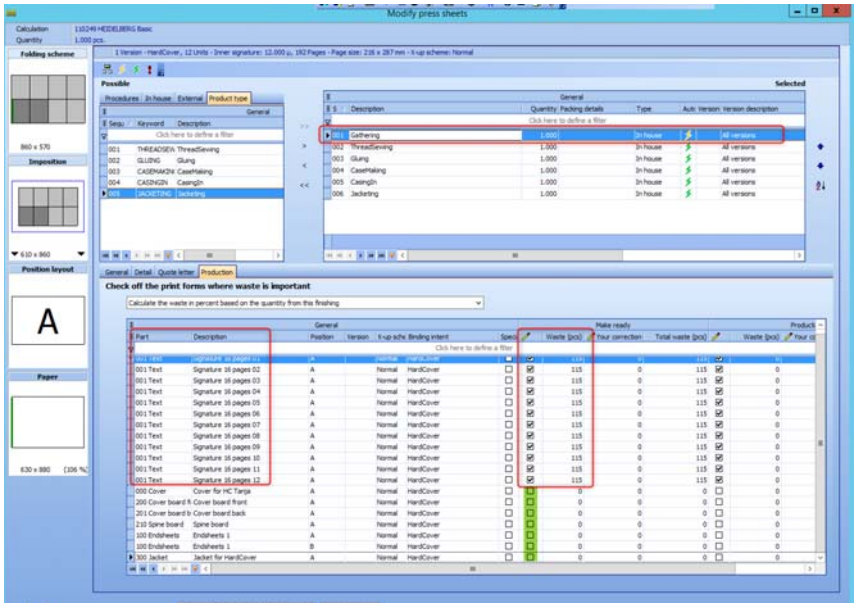
The waste for the finishing processes is configured in the "Finished types".

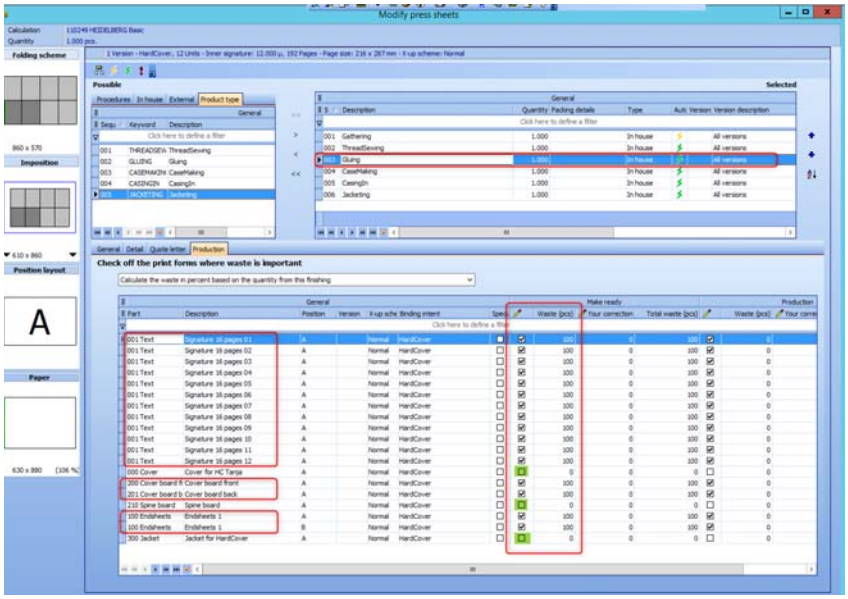
For the check marked product part waste is calculated.

The amount itself is configured in the "Internal finishing".

PBM explorer > Parameters > Calculation parameters > Finishing parameters > Internal finishing processes >







Configuration material consumption

7.21

A new way of treating material consumption has been added to the parameters of general finishing. This enables the user to define the parameters in a more generic manner.

The general finishing process can also contain multiple materials.

1. Up to maximum 5 calculation materials are possible for one process

2. The consumption method can define up to 3 user variables.
The values can be specified in the process itself. The description of the unit for these user variables are defined in the method.

3. The unit of the material is a text field in the definition of the calculation materials. (not new)

4. The calculation manner of the consumption method is a generic system.
It uses variables to calculate the result of the consumption.

5. The variable with the name "Result" is mandatory

6. The variables are available according to the product type.

7. When updating to Version 7.21, nothing needs to be considered. The original material usage method is applied until another configuration is made.

Materialconsumption general finishing (New in V 7.21)

Materials used in hard cover book production

Consumption of Thread sewing

The inner signatures are sewed together with thread.
To sew one book = the length of the thread depends on the number of inner signatures, the height of the page and an extra waste (a percentage or fixed length)

What is the rule to calculate the number of needles to use related to the height of the page?

The speed of this machine also depends on the number of inner signatures.

Consumption ribbon

The ribbon is a material consumed in meters and the length needed for the book depends on the size of the book.

Consumption head and footer band

The head and footer band is consumed in meters and the length for 1 book equals the thickness of the inner book block x 2 (top and bottom).

Consumption of the glue

The **endsheets** are glued on the inner book block.

This is done in the book block preparation processes. It can happen that there are technical limitations, so that the operator decides to glue the front endsheet to the first inner signature and the back endsheet to the last inner on a separate machine.

Only a small surface at the fold area is glued. This depends on the height of the page.
The width of the surface is a parameter (7 mm).

This is only done once for the front and once for the back.
It does not depend on the number of inner signatures.

The consumption of the glue is measured in kilo.

A **paper band** is glued around the spine.

This is done in the book block preparation process.

After pressing the book block together a paper is glued around it to keep it together.

There are 2 types of glue involved:

1. Hot melt glue on the back of the block (spine).
The surface that is glued is the height x width of the spine board.

2. Cold glue on both sides of the block. The surface is the height of the spine board x parameter (17 mm).

The glue for these operations are different than the glue used on the endsheets and cover.

The **endsheets** are glued on the cover.

This is done in the casing process, inline.

The surface used for gluing is the whole page of the endsheet. This should be calculated with the height and the width of the page.

Again this is only done twice: for the front cover and for the back cover.

Remarks

If the book block process also glues the endsheets inline, then 3 types of material are used.

The consumption is calculated with g/m² resulting in a total amount of kilo.

Header and footer bands

The customers decides if a head or tail band is added.

This band is a expensive material and is measured in meters.

An extra carton/paper on roll is used to attach the band on.
It is then glued to the inner book block spine.

Adding the band to the book block can be done inline with the casing in process,
before fixing the cover case. For this a glue is used.

Consumption of the band:

1. The length of a band depends on the width of the inner book block spine. And it is calculated twice if also a foot band is required.

2. The consumption of the bands is measured in meter. This is a material of the type "Other Materials".

Consumption of the paper

The length of the carton depends on the height of the page. The width of the paper is approximately the width of the spine board.

The material is of the type "paper roll". So the choice of the width is limited to the existing widths of paper rolls. The consumption is measured in meters.

Consumption of the glue

The surface is (height of the spine board - 2 x band width (or parameter)) x width of the spine board.

The consumption is calculated with g/m² resulting in a total amount of kilo.

3 types of materials are necessary here.

The ribbon

The customer decides if a ribbon is required.This is an expensive material and is measured in meters. This is a different material than the header and footer band.

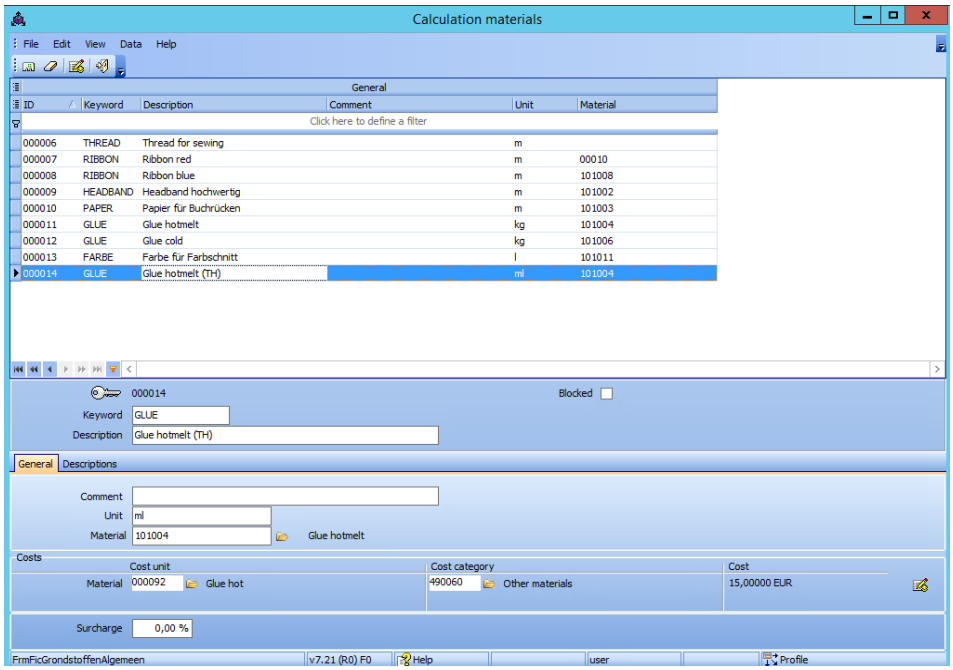
The process is a manual labor process.

The length of the ribbon = SQRT (page height² + page width²) + extra length (fixed 35 mm)

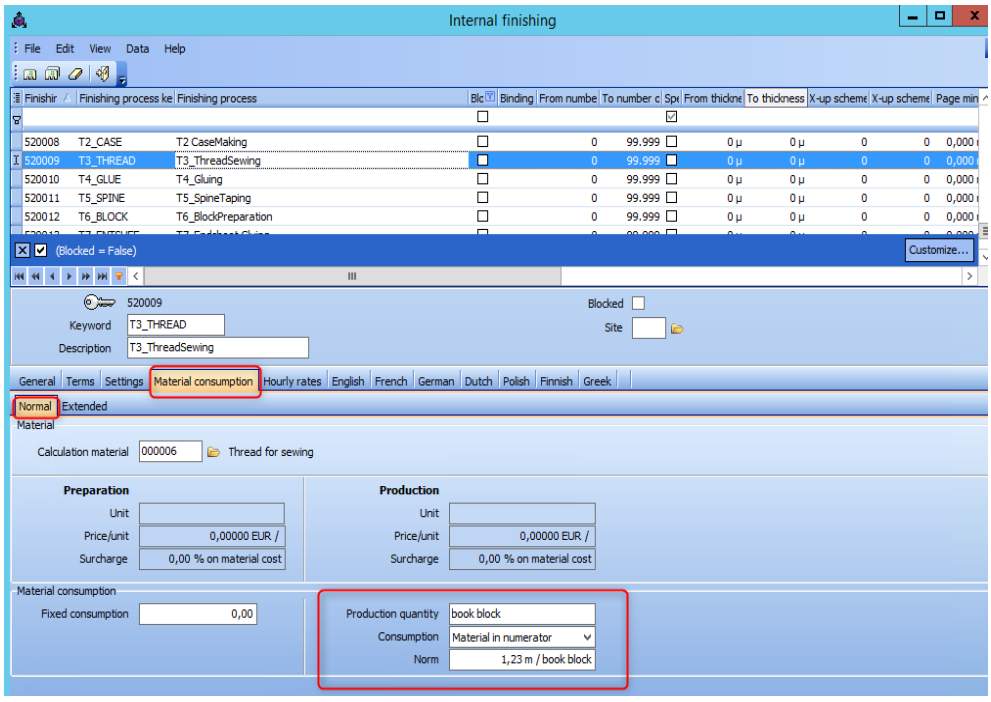
It is possible that more ribbons are required by the customer. It can be up to 4 ribbons.
And the material for the ribbon can be different.

Quick explanation before Version 7.21

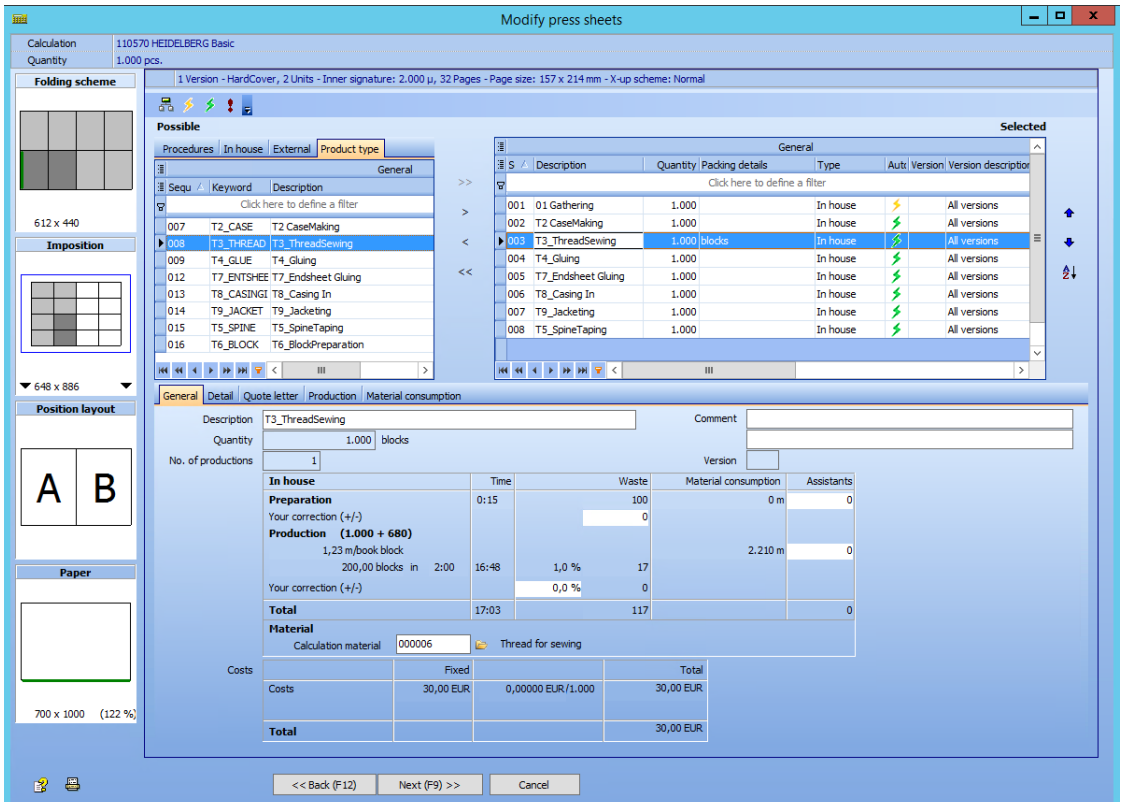
PBM explorer > Parameters > Calculation parameters > Finishing parameters > Calculation materials

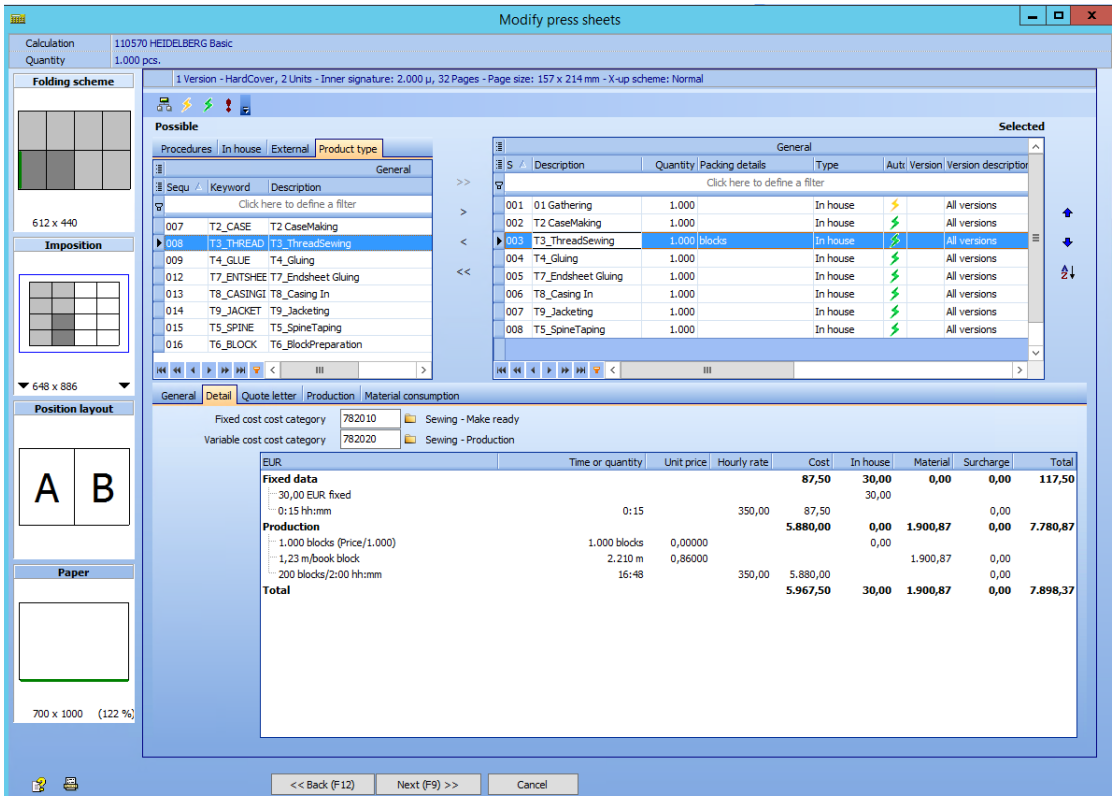


PBM explorer > Parameters > Calculation Parameters > Finishing parameters > Internal finishing



Materialconsumption general finishing (New in V 7.21)





The number of meters/book block is not calculated. It is taken straight from the parameter default.

The material calculation has a price and the unit (free description) is "meter".

Materialconsumption with Version 7.21

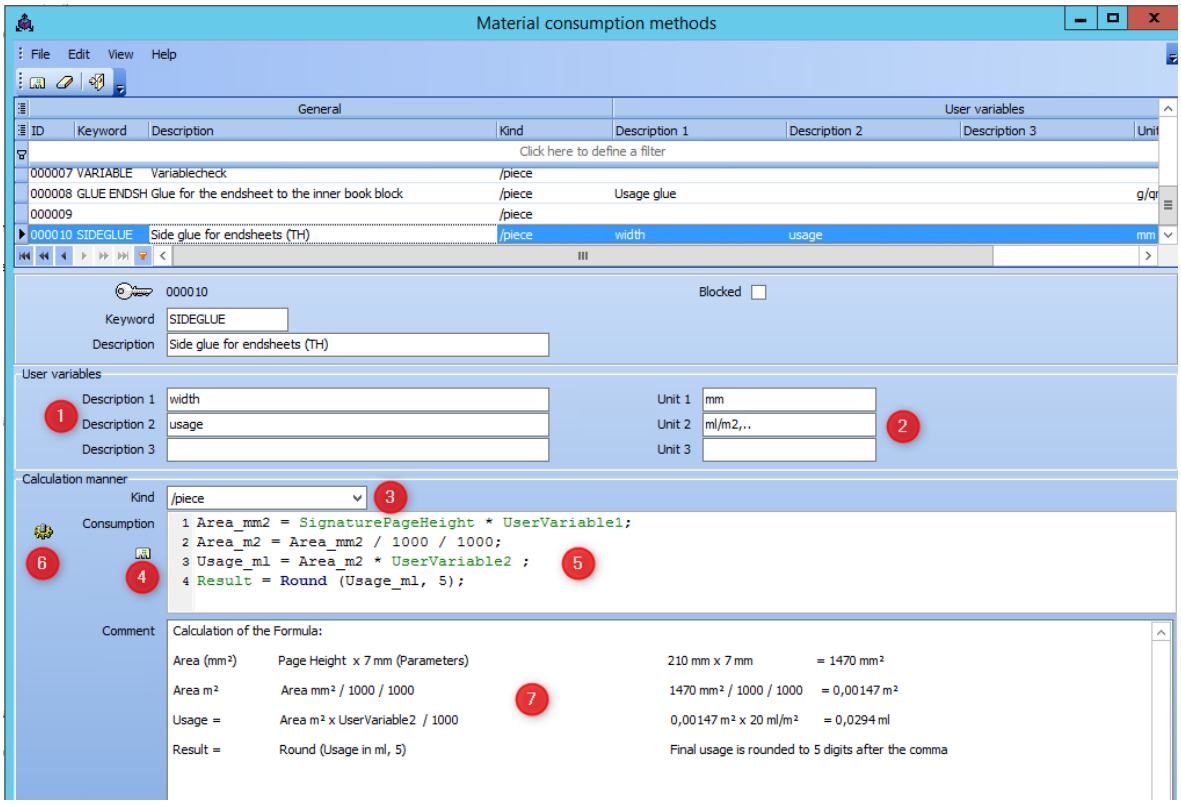
Since Version 7.21, a new way of treating material consumption has been added to the parameters of general finishing. This enables the user to define the parameters in a more generic manner.
The general finishing process can also contain multiple materials.

It uses variables to calculate the result of the consumption.

It is available for all product types (not only for book production)!

Be aware: If you have "liter, meter, mm,..." in the estimation, you will have still "piece" in the material management.

PBM explorer > Parameters > Calculation parameters > Finishing parameters > Material consumption methods



User variables

(1 + 2) The consumption method can define up to 3 user variables.
The description of the unit for these user variables are defined in the method.
The description is arbitrarily, but it should have a logic name as you see in the screenshot.
This user variable can be inserted as the other variables in (4).

The unit of the material is a text field in the definition of the calculation materials.

Usually all values of the length should be entered in mm.
All values of surfaces should be entered as m².

In this example the width is given in mm and the usage of the glue in ml/m²!

Calculation manner

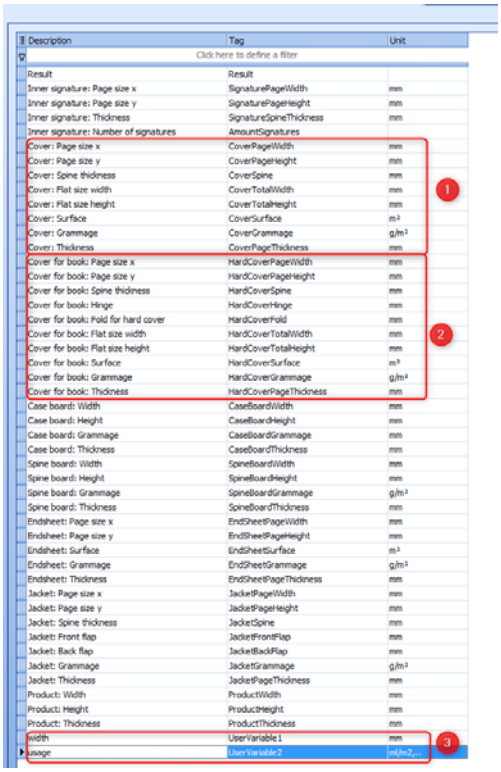
(3) The formula (5) refers to this setting. The result can be defined as:

> Fixed	= not depending on the amount. Consumption is fixed.
> per piece	= calculated amount is per 1 piece
> per 1000	= calculated amount is per 1000 pieces

(4) (5) Pressing the "new" field, this window with the available variables appear.

(1) Variables for Softcover
(2) Variables for Hardcover
(3) User defined Variables from (2)

Those variables can be used as a mathematical formula. The result can be programmed using standard operations (+ / - / x / :).
Be aware: Not all variables are available for each product type.



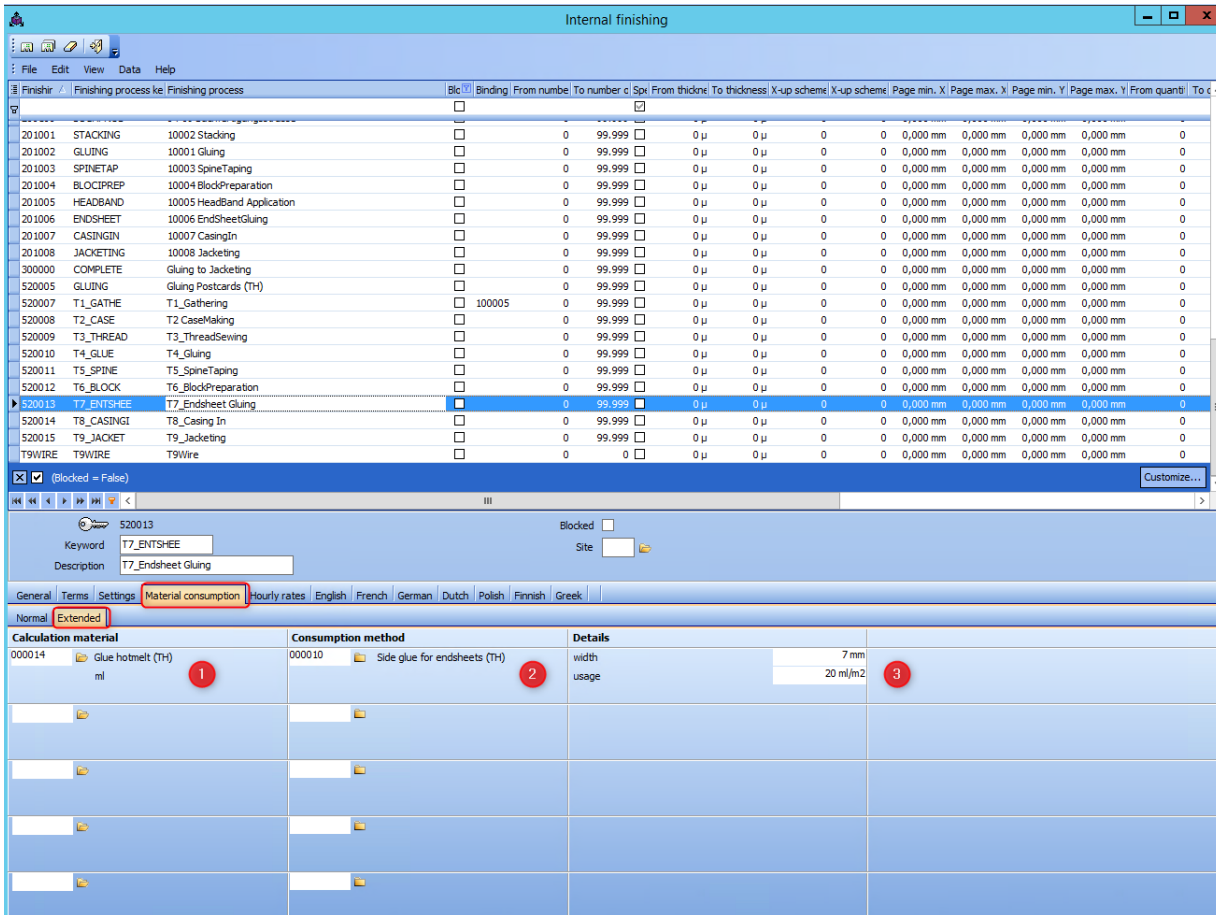
Be aware: The variable with the name "Result" is mandatory!
This value is transferred to the estimation.
The system will round up to 6 digits, but the user can use the variable "Round" to indicate this differently. The number in brackets, in the example "5", gives the digits after the comma.

(6) Check if the Syntax is correct.

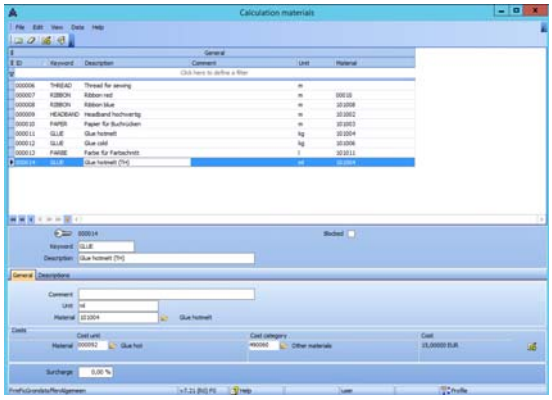
(7) Free field for documentation and comments e.g. of the entered formula.
No limitation of the characters.

In the definition of the internal general finishing an extra tab is provided to indicate multiple materials and their method for consumption.

Up to maximum 5 calculation materials are possible for one process.

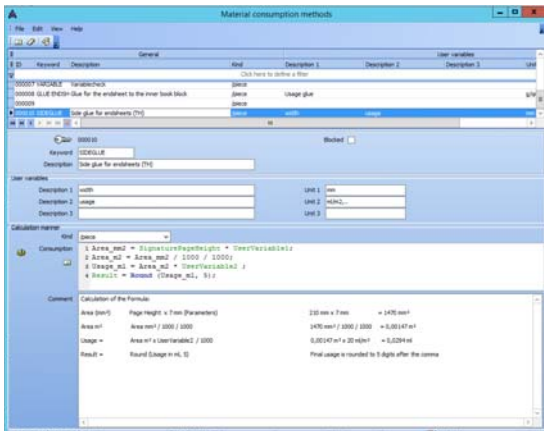


(1) Here you select the material which you defined in
PBM explorer > Parameters > Calculation parameters > Finishing parameters > Calculation materials



(2) Here you select the formula which you have defined in

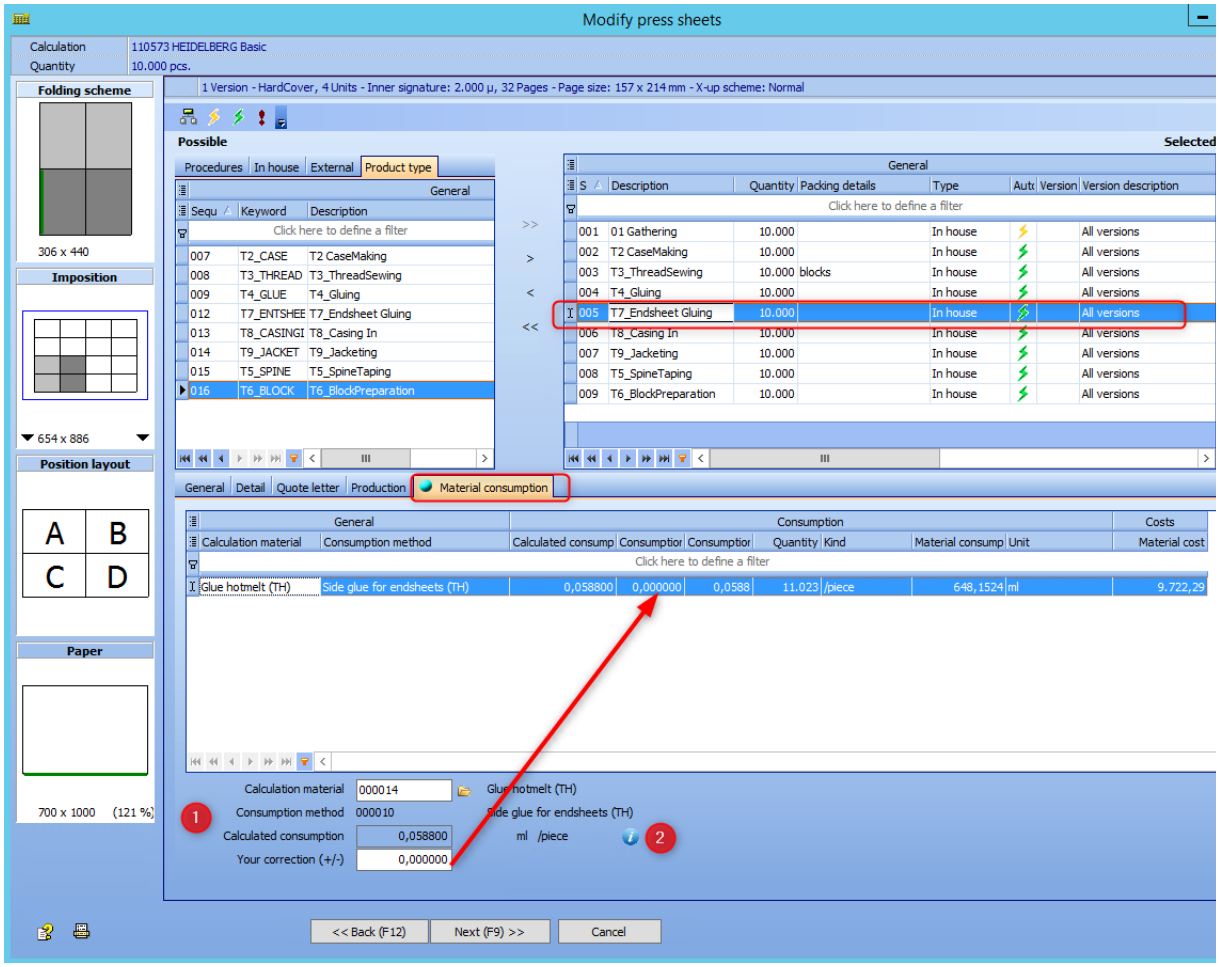
PBM explorer > Parameters > Calculation parameters > Finishing parameters > Material consumption methods



(3) Here are the values of the predefined user variable visible.
The values can be overwritten and it can be used for more processes.

Be aware: The same formula can be used multiple times.
Can not be changed in the estimation.

In the estimation /general finishing you will find the registercard "material consumption".
This is a new tab in Version 7.21.



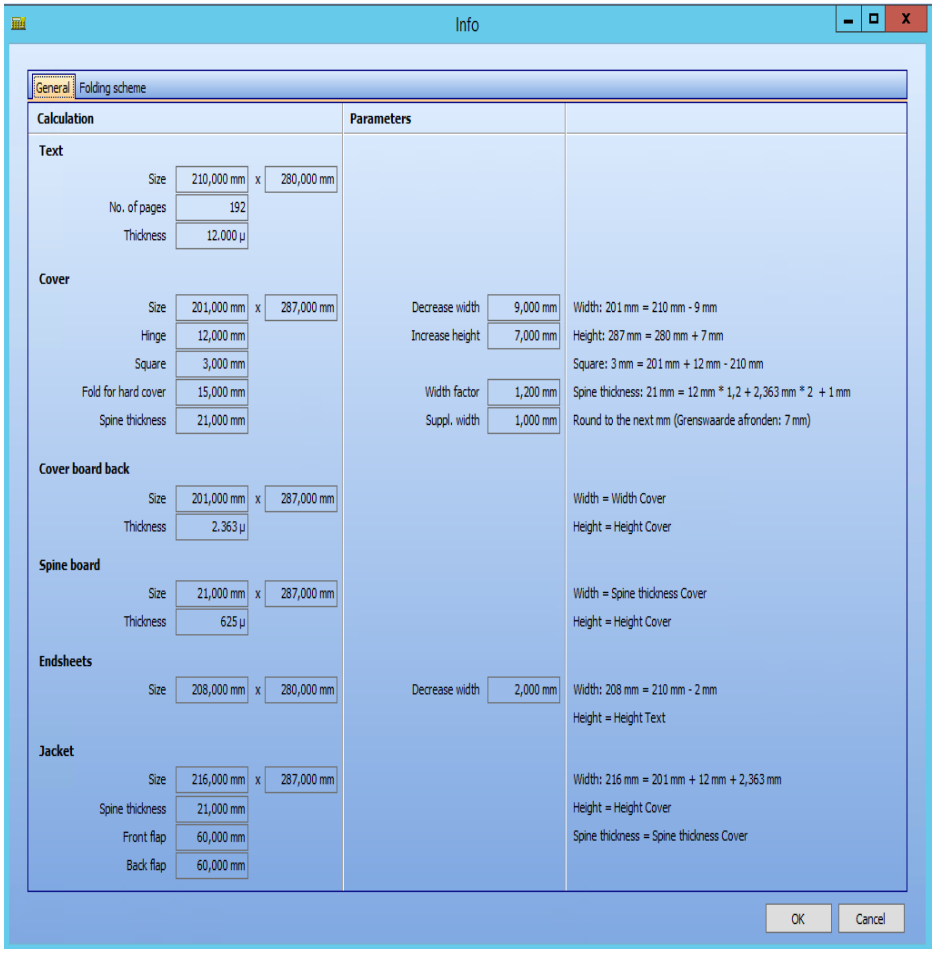
(1) The calculation material, the consumption method, the calculated consumption per piece/per 1000 or fixed is visible. Additional you will find a field with "Your correction (+/-).

The calculated consumption is a fixed field.

The total consumption is shown along with the costs.

This field is shown in the column "Consumption correction" and is adding it directly to the total consumption per piece/ per 1000 or fixed. It is not possible to change the absolute/final value of consumption material consumption

(2) To check the value of the calculated consumption, an info button is provided to pop up an overview of the calculation method together with the current values of the variables.



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