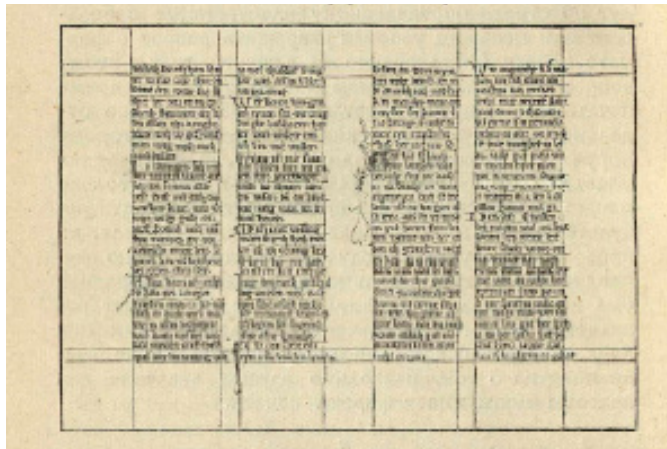


Proportions of page margins

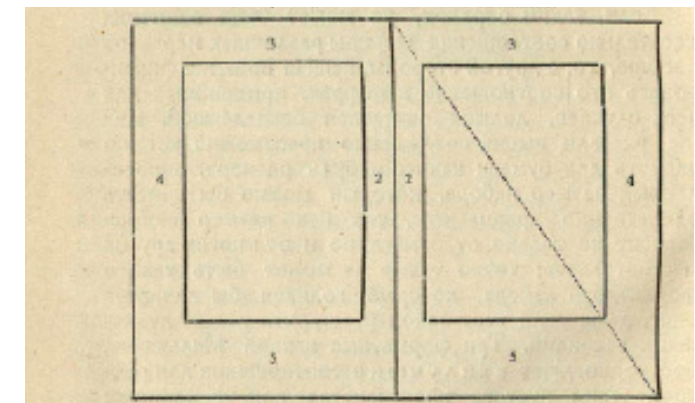
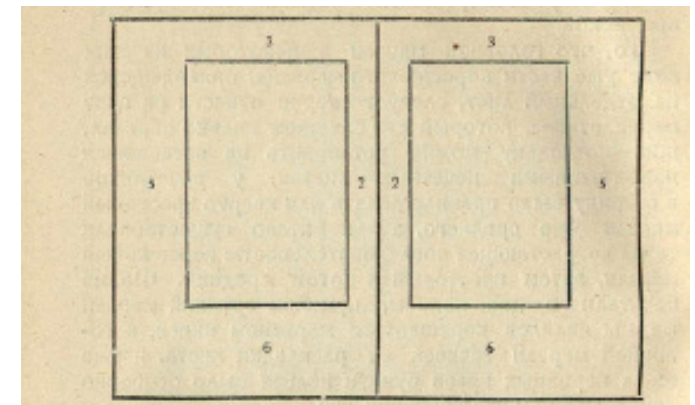
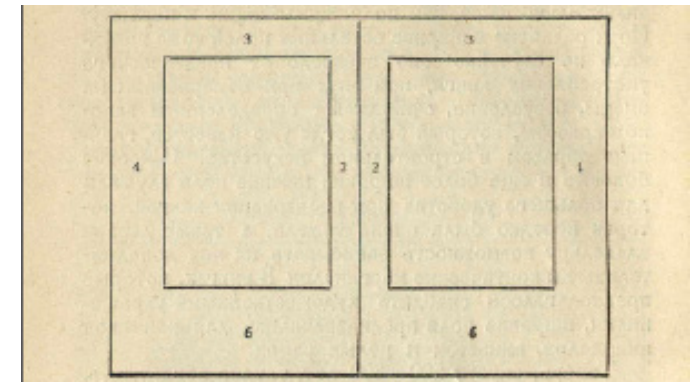
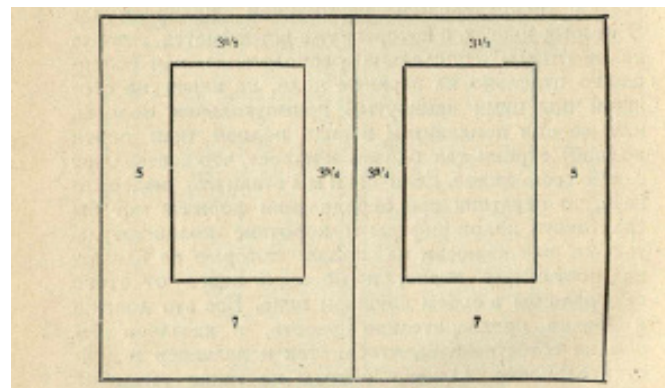
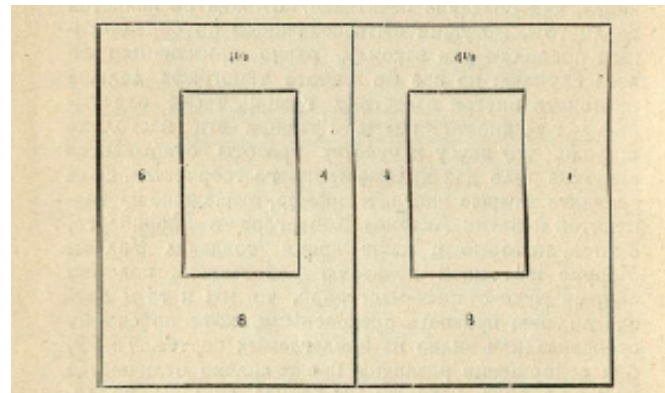
The search for the proportions of the margins and the text area began already at the time of the creation of handwritten books. In Friedrich Bauer's book *Das Buch als Werk des Buchdruckers*, (Leipzig 1920), there is a picture of the lining of the manuscript.



And the creation of books in print made this process of finding harmony in the design even more important: apparently, the criteria for choosing sizes were not

only the proportions of the margins and measure, but also the degree to which the page was filled with text.

There were a lot of variants, here are examples of book layouts from Bauer's book:



As Bauer writes, many of the variants used were very wasteful in terms of paper usage.

This book mentions the of librarian Gustav Milchsack, who collected a lot of information about the size of handwritten books Archiv für Buchgewerbe (1901), which allowed us to find out the proportions of the fields that were most used at that time. These relations are sometimes called the Milchsack rules. There are three of them: 2:3:4:6, 2:3:5:6 and 2:3:4:5.

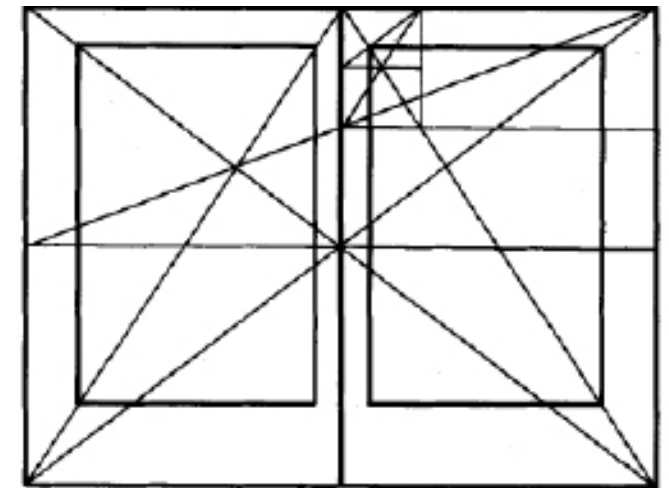
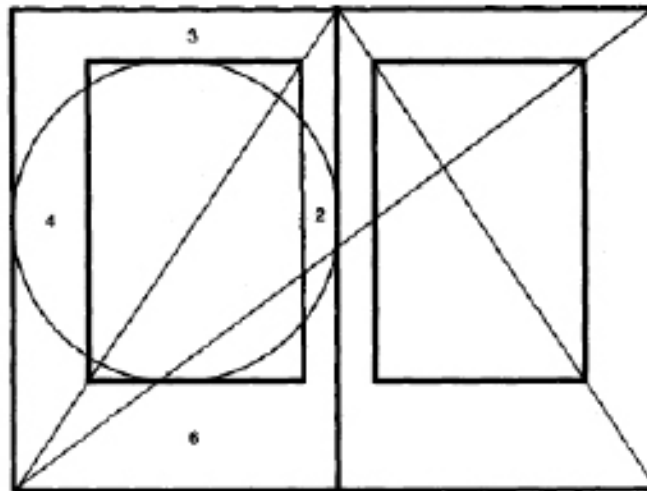
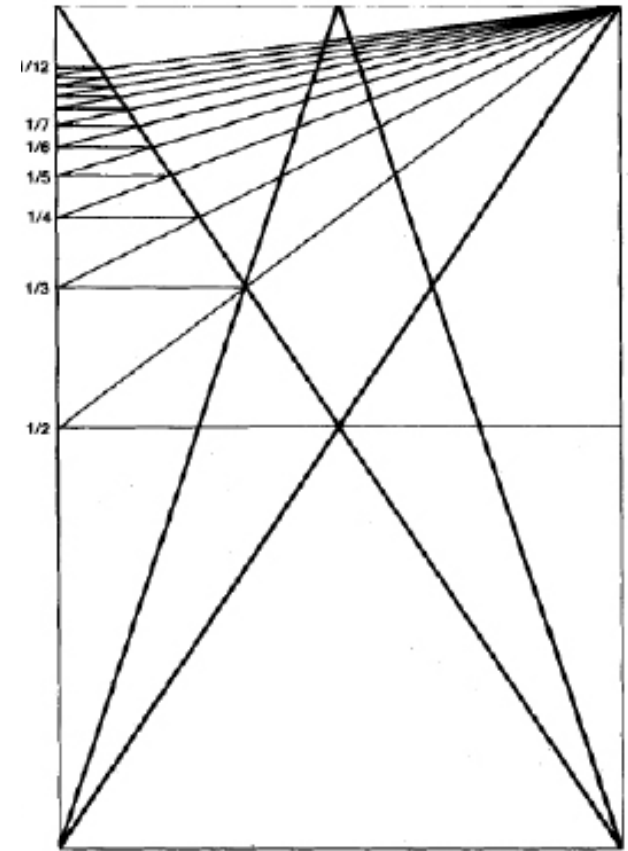
According to Bauer, “Milchsack’s three format rules undoubtedly give the best ratios for the distribution of empty space around the text area”.

A great contribution to the elucidation of the geometric constructions of the typesetting strip was made by Jan Tschichold. Here on this page are

miniatures of drawings from his work The Form of the Book: Essays on the Morality of Good Design, 1975.

They are certainly interesting to get acquainted with the amazing experience of masters of the past centuries, but for modern work I would like to have a more operational tool for preparing book layouts, without numerous geometric drawings.

And such a program was made.



File for work

This program is for selecting the margins of a new job, so it makes no sense to work with a previously created document. You'll only waste time. Create a new three-page document of the desired size, facing pages option is on, stand on the third page, draw a small text frame on it, and place the cursor in it.

Now run the script **PageMarginProportions.jsx**. The window of this program is on the right.

Enter the value of the inside margin. Now you can try different page layout variants.

What is type area

In computer layout, we usually define the margins on the page, they are marked with a magenta color, and the main frame for the text. If there are running headers and footers in the work, then as soon as there are our own tools for working with them, we just make frames for them over the frame of the main text.

But in the days of hot typing, there was a different approach: the entire space, including the running header and the text area, was considered a whole measure. And all those proportions and geometric constructions of the scribes of the past centuries — there the footer and the set strip were included in the text area. And it's

Proportions of page margins

40p1.890 Width 680.3 Height (pt)

4p0.189 Inside margin ☐ - ☐ +

0p0.000 Correction for glue ☐

☐ Margins in the ratio 2 : 3 : 4 : 5 ☐

Calculate ?

Margins in the ratio 2 : 3 : 4 : 5

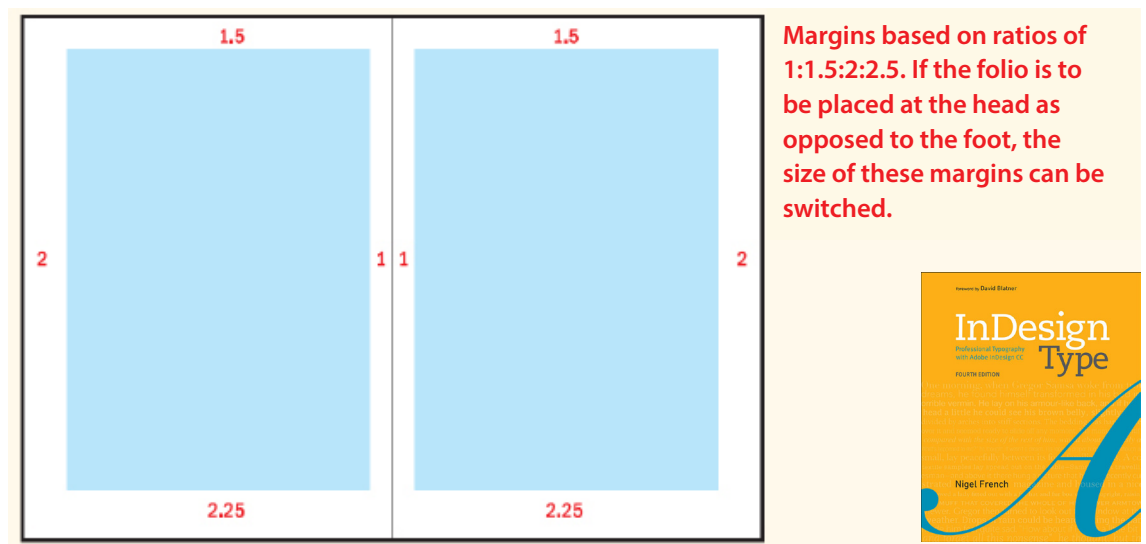
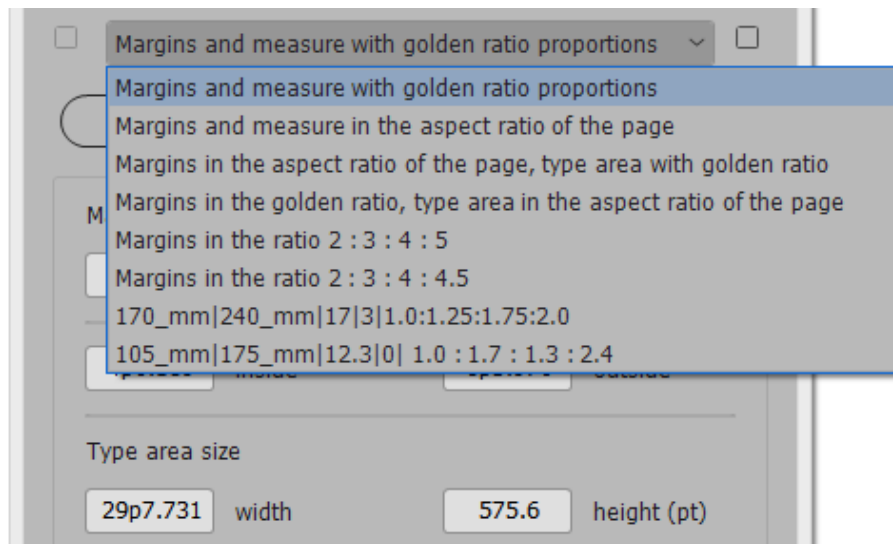
72.3 top (pt) 120.5 bottom (pt)

4p0.189 inside 8p0.378 outside

Type area size

28p1.323 width 487.6 height (pt)

the same in this program. The calculated value of the upper margin is up to the running header, if you plan to have it. Do not treat the text area of this program exactly as a text frame.



Layout options

The study of books on the search for harmony of measure showed that everything revolves around the use of the golden ratio and the aspect ratio of the page. Plus the practical proportions found, such as the Milchsack rules. These features are provided to the users of this program.

The dropdown menu contains options for proportions, on the basis of which you can design a page. The main

size is the inside margin, everything is calculated from it. The names are quite informative, an explanation, perhaps, is needed only for the last four lines.

The proportion 2 : 3 : 4 : 5 is the most economical of the variants of the Milchsack rules. Variant 2 : 3 : 4 : 4.5 I found in *InDesign Type*, it is the must-read book by Nigel French.

Here's an interesting idea from this book: if there is no folio at the bottom of the column, then you can slightly reduce

the bottom margin to fit another row. In the upper right corner, 1:1.5:2:2.5 is an otherwise recorded version of Milchsack's rule 2:3:4:5, and at the bottom under the frame, the lower field is not 2.5, but 2.25. I liked this idea — just reduce one margin to add one more line.

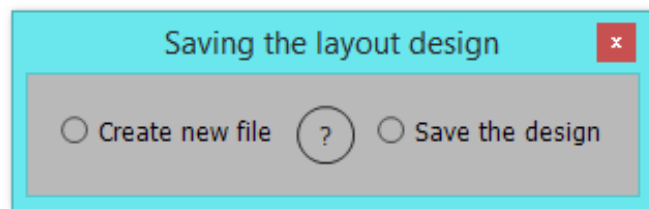
The correction for glue to books made using adhesive binding technology is done the same way — there is simply an option to increase the inside margin.

A book of a different size

The last two lines are information about the layout of specific books. Record format: width | height | inside margin | correction for glue | proportions line. For the inside margin and the correction for glue, the unit of measurement is not specified, the one for the page width is taken. Book records are stored in file BookMarginInfo.txt, it is in the same folder where the script is.

Save layout design

And **SaveMarginsInfo.jsx** — it is the program for putting information in this text file:

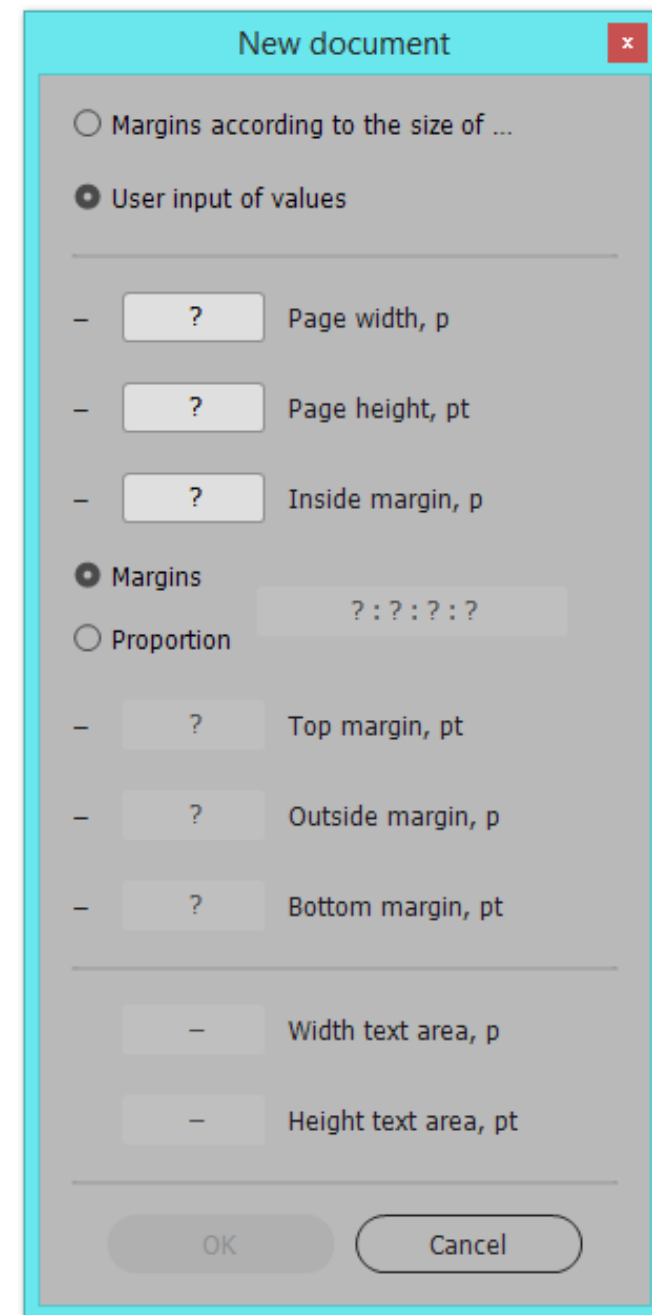


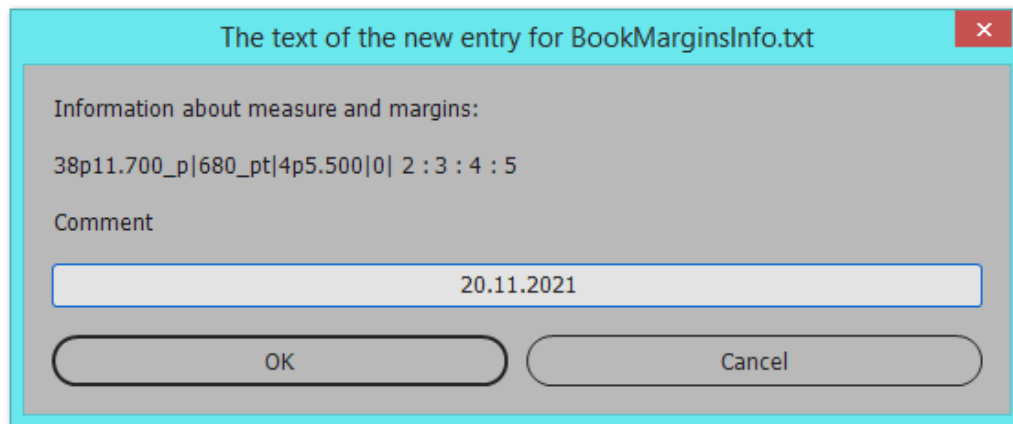
Main window: two radio buttons **Create a new file** and **Save the design**. Button [?] is for output full information about usage these radiobuttons. Here is short description but with pictures.

On the right is the program window when radiobutton **Create a new file** selected. There are two radiobuttons for selecting the variants: **Margins according to the size of the selected frame** and **User input of values**.

The *second option* — you define all parameters. When all fields are filled button OK enabled.

The *first option* is for repeat a design the book when you have a PDF. This radiobutton is active if a rectangle is selected on the right side of the layout. I usually make a layout, each page is





in the cropped format of the book, on the right is a frame, into it is a PDF of the full page. I outline the text frame, highlight it, and then run the script **SaveMarginsInfo.jsx**. The selection should be before the launch, this is important.

After that, in the menu in the right column, I select the first radio button. All fields are filled in automatically. After clicking **OK**, a file with the following page sizes and margins will be created.

Select the **Save Design** radio button, a window will open to save this line in a file `BookMarginsInfo.txt`. There is an option to add a comment to this data.

Performing calculations

Let's say a three-page 205x290 mm was created to select the sizes of margins and text area. The size of the inside

margin set to 15 mm. And when we select any of the first six options (see p. 4), each time we click on the **Calculate** button, the fields, the sizes of the margins are calculated and displayed in the working window.

In the names of the first four options there is no information about the proportion of fields, but since it is in fact there, the proportions of each option are displayed in the **Margins in the...** line, and for these four options the value is displayed in parentheses, because it is calculated, and not set in advance.

If you need some correction for glue, then this value will be taken into account when the checkbox is selected in the row of this parameter. Accounting consists in increasing the actual inside margin, while the entered value of inside margin remains unchanged.

If the entry about book design is selected, then there are two options:

- the settings of the inside margin, corrections for glue and proportions will determine the design of the current document
- if you click on the checkbox to the left of the dropdown list, the current document will become the size that is

specified in the selected line, and then you will work with it.

To finish working with the program, click on the red cross in the program header. The **sets** folder stores information about each processed file: the name, the position of the working window on the screen, the inside margin size, the correction for glue, the unit of measurement of horizontal dimensions.

Result

I think that our colleagues, Messrs. Bauer, Milchsack and Tschichold, if they lived now, would really like this decision :)

Of course, the program will not do anything without our participation. It is only a tool, and you need to use your head to make the right choice.

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07.12.2021