

“VALENTINA” 0.7. QUICK GUIDE



Preview version



“Valentina” 0.7. Quick guide

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Preview

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Contents

Copyright	5
About this book	7
What is “Valentina”?	9
The project goals	11
1 Installing	13
1.1 Source code	13
1.2 Binary builds	15
1.3 Launching	16
1.4 Updating	17
2 Making a pattern	19
3 Creating a detail	25
4 Layout export	29
5 Tools	33
5.1 Creating points	33
5.2 Creating lines	33
5.3 Creating curves	34
5.4 Group operations	34
6 Parametric patterns	35
6.1 Formula	35
6.2 Internal variables	35
6.3 Increments	36
6.4 Multiline formulas	36
6.5 Measurements	36
6.5.1 Individual measurements	36
6.5.2 Multisize measurements	36
6.5.3 Separator	37
6.6 Formula Wizard	37
7 Detail	39
7.1 Main contour	39
7.2 Seam allowance	39
7.2.1 Types of corners	40
7.3 Notches	40

7.4	Internal path	40
7.5	Place labels	40
7.6	Labels	40
7.7	Pin	41
7.8	Inserting nodes	41
7.9	Merging	41
7.10	Copying a detail	41
8	Layout	43
8.1	Automatic	43
8.1.1	Settings	43
8.1.2	Export	44
8.2	Manual	44
8.2.1	Using	44
8.2.2	Export	44
9	Additional features	45
9.1	Background image	45
9.2	Exporting the drawing and details	46
9.3	Final measurements	48
9.4	Program settings	48
9.4.1	Valentina	49
9.4.2	Tape	50
9.4.3	Puzzle	53
9.5	Watermark	55
9.6	Export and import of measurements	57
9.6.1	Export of measurements	57
9.6.2	Import measurements	58
9.7	Shortcuts	60
	Frequently asked questions	63
	Index	65

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Thank you for purchasing this guide and in this way supporting the development of the project! The purpose of this book is to introduce you to the basic features of the “Valentina” software.¹ It focuses on the functionality of the software without examples of practical use. It will be useful to experienced PC users and people who are familiar with pattern-making. In a short format, we have included the main points about working in “Valentina” that, in our experience, raise the most questions for beginners when getting to know the software. The book deliberately omits moments that, in our opinion, are intuitive or necessary for a small circle of users.

This manual does not cover the subject of pattern making or pattern modelling. The “Valentina” itself has no focus on a particular pattern making system, so it does not impose any approaches on you. No advice will therefore be given on this matter. Knowledge of pattern making is desirable before reading the book, although not essential, to simplify understanding of the material.

This book is primarily aimed at people who want a quick introduction to the basic features of “Valentina”. More experienced users of “Valentina” will find the book useful to familiarise themselves with the new features when upgrading to new versions.

¹The current version of “Valentina” at the time of writing is **v0.7.51**.

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WHAT IS “VALENTINA”?



Figure 1: Valentina project logo

“Valentina” is a software for creating clothes patterns. Not all pattern-making software is the same. In this sense, “Valentina” is different because it cannot be unambiguously classified as a computer-aided design (CAD) system. At present, “Valentina” performs only a fraction of the processes available in classic CAD. The main difference is the ability to create parametric patterns.

The pattern parametrisation process allows you to describe the pattern construction process by setting rules. In the classical approach, this process is left out of the box. And we can only work with the finished result by modifying the existing form. If the shape is exactly as we need it, it’s not a problem. However, if you need to recalculate to the new data, difficulties arise. The new pattern requires manual creation. With a parametric pattern, this problem does not arise. It already contains a creation description, so recalculation can be done automatically.

Don’t think of “Valentina” as a universal tool, because designing parametric patterns is not an easy process and is not always appropriate. Designing involves working with formulas and programming the computation logic. This is a technical process, not directly related to design issues. The emphasis in the work lies on mathematics. That’s why if you’re not ready for it, “Valentina” won’t suit you. Only choose it when you are looking for a way to simplify the possibility of grading and redrawing a pattern by creating parametric drawings.

Not one of the available pattern making systems was emphasised in the design of the “Valentina”. It can safely be considered a universal solution in this respect. Capable, at a sufficient level, of being suitable for a wide range of pattern making systems. If any of the components are missing, you can always contact the team to suggest improvements.

Designing in software is different from what you are used to on paper or in classic CAD. You should therefore be prepared for the fact that many of the systems you know will not provide all the answers, because they are designed for human control. Whoever figures out how to go that last mile first gets an incredible result.



Figure 2: GPL licence logo

“Valentina” is a set of programs. It includes an app for designing patterns (Valentina), creating measurements (Tape) and working with manual layouts (Puzzle). It is distributed under the open source software model. The project code is distributed under the GPL license (see fig. 2). This means that you can freely download the application code, modify it and distribute your modification. This model makes “Valentina” accessible to a wide range of users.²

If you are looking for a software to create parametric patterns then “Valentina” is definitely something you should get familiar with.

²Assuming that users are familiar with how to compile a program.

THE PROJECT GOALS

What was the goal of the authors of this project? Like everything, the project started with an idea. Ideas to create something great. So the initial goal was **the desire to create**. Then it got in touch with the problem of creating patterns and that's how the idea for the tool was born. It was not yet "Valentina", but its prototypes. Time and many experiments have completed the development. As they progressed, the list of targets started to get longer. To the desire to create was added the idea of **making parametric patterns**. There aren't many tools available that allow you to look at the process of creating parametric patterns in practice. The method itself has been known for quite some time, but it is considered difficult to achieve good results in this way. All right, then. Challenge accepted! We believe that our tool will bring us closer to a time when no one will find this idea too complicated anymore.

Creating an accessible tool is not an easy task. It requires a lot of time and resources. Resources that a group of enthusiasts does not have. Therefore, the open source software model was chosen. After all, it brings the efforts of the community together to achieve common goals. We all have the same goal - **available powerful tool**. There is a lot of clothing design software on the market, but not many of them are available to the public. We understand the developers of such software, because development needs a lot of investment, but we don't like the inaccessibility of such solutions. Exactly to prove the mistake of ignoring a significant number of potential users, we are working on this project.

In addition to the exorbitant price of the alternatives and their often complete disregard for the possibility of creating parametric drawings, the problem of learning materials is also quite acute. Even if you have obtained the software illegally, you still need to figure out exactly how to use it correctly. That's why one of our goals is to **provide quality learning materials**, of which the book you are reading now is a part.

There are many obstacles on the road to perfection. Most users of the "Valentina" are not familiar with programming, so they cannot fix bugs in the software themselves, or add new functionality to it. That's why **technical support** is very important.

Over the years of development, the team, together with the community, has managed to create an interesting tool that has attracted the attention of many pattern makers. We still have a lot of work to do on our journey, for we still have a lot to say! However, further development and achievement of our goals is impossible without **commercial success** of the project. That is why the team

decided to start moving in this direction. After all, this does not contradict the objectives we identified earlier.

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“Valentina” is distributed in two main forms: binary and source code. This book will not cover the installation phase in detail, as it is fairly well standardised and should already be familiar to the user who has already dealt with a personal computer. Our aim is to introduce you to the main methods and to direct you to the relevant sources for a more in-depth look.

1.1 Source code

As previously mentioned “Valentina” is software distributed under the open source model¹. This means that you have the option of creating and installing a version yourself from the available source code.

At first it may seem that only people with a technical background would be interested in such a method, but this is not entirely true. This method of distribution should not be underestimated. After all, it offers so many benefits, although it does require the learning of special skills. In order to fully possess the “Valentina” one must at least be aware of the existence of such a method. And ideally know how to use it. We will therefore look at it in a little more detail.

In order to use this method you **don’t need** to know a programming language. The process of creating a program from source code itself involves a set of steps that simply need to be learned. People involved in these activities are usually referred to as maintainers. They are responsible for scripting, documenting, building and packaging the finished versions of the programs. In fact, we owe it to them to have so much software in the collections available to us for installation.

This method of distribution may be suitable for you if you:

- Wonder how it’s done. It’s not as difficult as it looks at first glance. Allows you to be independent of other people and save money.
- You want to make sure that the version you receive does not contain any harmful attachments. This can be important if you need to monitor what code is running on your hardware. This can also include a code signing with the developer’s keys.

¹“Valentina” is distributed under the GPLv3+ license.

- You can adapt the generated binary code to the specifics of the personal computer's configuration. Normally a binary version is created for an average equipment profile and cannot take full advantage of all features. In practice, this means a slower speed of program execution. Compiling the program code with the hardware in mind may give a better result.
- Create your own versions. By this we mean both making our own changes to the code, program resources and changing the installation scripts. Adaptation to other ways of distributing binary versions. Some of the popular methods are still not supported by the project team.
- Create versions for platforms and architectures that are not officially supported. Full freedom gives you the opportunity not to wait or ask for support, but to do it yourself. This also includes preparing versions for OS versions and platforms that are no longer officially supported. Developers, for various reasons, may already have withdrawn support for OS versions and platforms that you still plan to use. In practice, this still means that it will be relatively easy to get this support back if you compile the program code yourself.

As we can see, this method of distribution allows you to fine-tune the tool to suit your needs. For example, you don't like an existing translation or you want to add a new one. You want to replace an image or change text in the software interface. Or you have courses and want to make changes that would visually set your version apart from the competitors. For example, add your own logo or colours. You want to remove what you think are unnecessary resources from the official version by reducing its size. Or you don't like the way the official installer works. Antivirus complains about it. You are able and willing to control the code your customers will use. Or you are planning to run "Valentina" on a server and need a version adapted to your needs. Sanctions also impose restrictions, you may not be allowed access to official versions, in which case creating your own version via source code may be a solution to this problem.



Figure 1.1: Git logo

The creation process begins by gaining access to the source code of the project. To do this you need to visit [project repository](https://gitlab.com/smart-pattern/valentina)², where you can find it. Download the archive or use the distributed version control system (git) (see fig. 1.1). Depending on the platform for which you are building your version of the software, you will need to install the developer tools and run the compilation process. The app will then be ready for use. It is common to additionally create

²<https://gitlab.com/smart-pattern/valentina>

special installation scripts to make it easy to use and deploy. Depending on the operating system, this may be an installer or a package. We will discuss forms of distribution in more detail when we look at binary builds ([section 1.2. “Binary builds”](#)).

A detailed description of the instructions is beyond the scope of this manual. However, you can always consult the relevant literature and ask for support in the community of the project and your operating system. Our aim is to give you an overview of this method.

1.2 Binary builds

Binary builds are the most popular way of distributing software. It allows you to install and use the software quickly, without any technical knowledge. The “Valentina” project team is also making binary builds. In order to download one of the available builds you need to visit the project’s official website [special page](#)³ and download the installer for your operating system.

To select the correct file, you will need to know the name of your operating system, as well as its version and bit-type. Then decide which version of the software you want to install. You need to be able to find your way around this, as the project supports a wide range of operating systems and software versions. And it’s easy to get lost in this list if you don’t know what you need. To make life easier for newcomers, you can use the [special section](#)⁴ to help you choose the right version of the software.

In order to properly deal with the versions of “Valentina”, you should know that the program is currently divided into two branches: a stable branch and a test branch. The stable branch receives no new improvements. It only has corrections for errors that have been found. Only choose it if you don’t want to take the risk, or if you want to get to know the program. The test branch, on the other hand, contains all the latest changes. This makes it less stable, but it is also more attractive because it allows you to start using the latest features immediately. What can be critical when designing patterns. The project team recommends it if you plan to use “Valentina” professionally as a parametric pattern design tool.

In order to distinguish between versions you need to look at their number. A version number forming an even number will belong to the stable version and an odd number to the test version. For example, the numbers *0.6.x*, *0.8.x*, *0.10.x* will belong to the stable branch. The numbers *0.7.x*, *0.9.x*, *0.11.x* – to the test branch. Only the first two digits of the version, separated by a dot, should be taken into account. To combine two digits into one, multiply the first digit by 10 and add the second digit to the result. *X* in our example means any number that increments by one with each new release.

There are several forms of binary builds. Windows users can choose between a version that has Windows support starting with Windows XP+ or Windows 7+. The plus in the name indicates that the version will also work on newer versions of the operating system. It is also possible to use a portable version that does not require installation. All you need to do is download the file to your personal computer, start the application and get started. Mac OS X users can also select

³<https://smart-pattern.com.ua/ru/valentina/download/>

⁴<https://smart-pattern.com.ua/ru/valentina/download/journey/>

versions depending on which version of the OS is installed on their hardware. There are also ready-to-use versions for some Linux distributions. However, we recommend installing versions from the official distribution repositories, if such have been created.

We recommend that you only download the version from official sources. The official list includes the official project website as well as versions in the distribution repositories. However, it is not uncommon to come across versions on third-party websites. Be careful with these versions as they may be infected with viruses or modified by attackers to compromise your system.

In most cases, binary versions is free of charge. However, maintainers may decide to charge for their work and distribute their build for a fee. That's allowed. However, make sure that your money will get exactly the people you think it will. It is not uncommon for users to be misled and encouraged to transfer funds, but the funds themselves are received by a third party with no connection to the developers.

After selecting the binary version you will need to download the file to your computer if it is a package or installer. Or connect a repository, in the case of some Linux distributions. The next step is to follow the normal logic of installing programs on your OS. A more detailed overview of this process is beyond the scope of this guide.

1.3 Launching

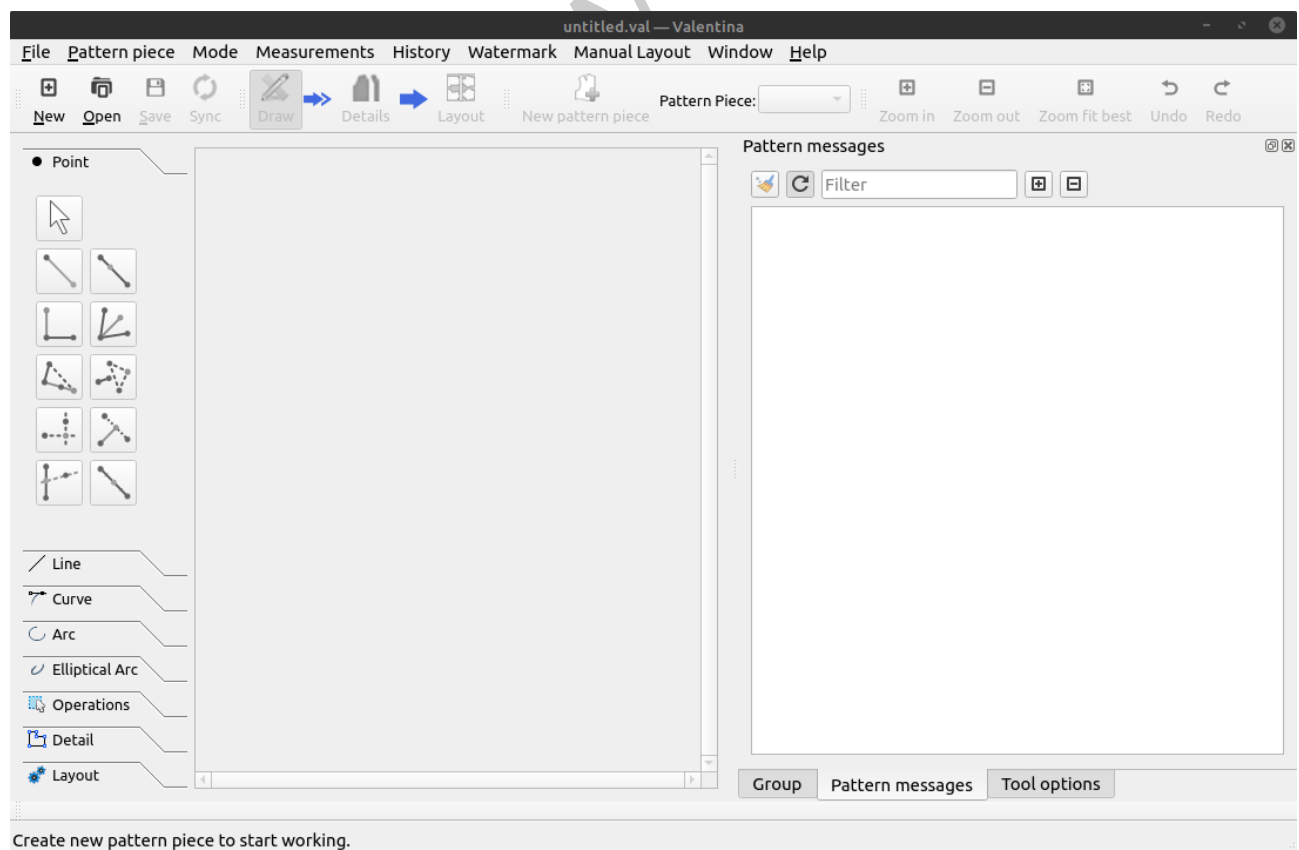


Figure 1.2: Application “Valentina”

To get started you must launch the program (see fig. 1.2). The method of launching depends on the type of operating system used. This can be a shortcut on the desktop, an item in the OS software list, a program file in the file navigator, or launching through the opening of a file type associated with the program.



Figure 1.3: The kit

Three applications are part of the package: Valentina, Tape and Puzzle (see fig. 1.3). In the case of the classic installer, you will have access to all three programs separately. The portable version only allows you to access the main application; all additional applications must be accessed via the corresponding Valentina application menus. In the case of MacOS X, the classic version is the portable form.

1.4 Updating

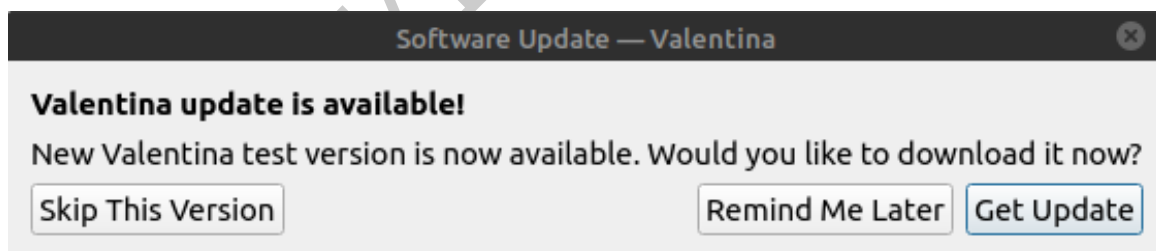


Figure 1.4: Dialog “Software Update”

Each time you start the app, it checks for updates. You need access to the Internet to do this. If an update is found for your version, then you will have three options to choose from (see fig. 1.4):

- Skip This Version - you will only see an update message when an even newer version is released.
- Remind Me Later - the update option message will be hidden for a while.
- Get Update - in this case you will be redirected to the new version download page on the website.



If you have problems checking for new versions or do not want to receive update messages, you can switch off checking for new updates in the software settings.

To run the update check manually, open the “About” dialog in menu . And press the “Check For Updates” button. In the same dialog, you will find information about the version of the app you are currently using.

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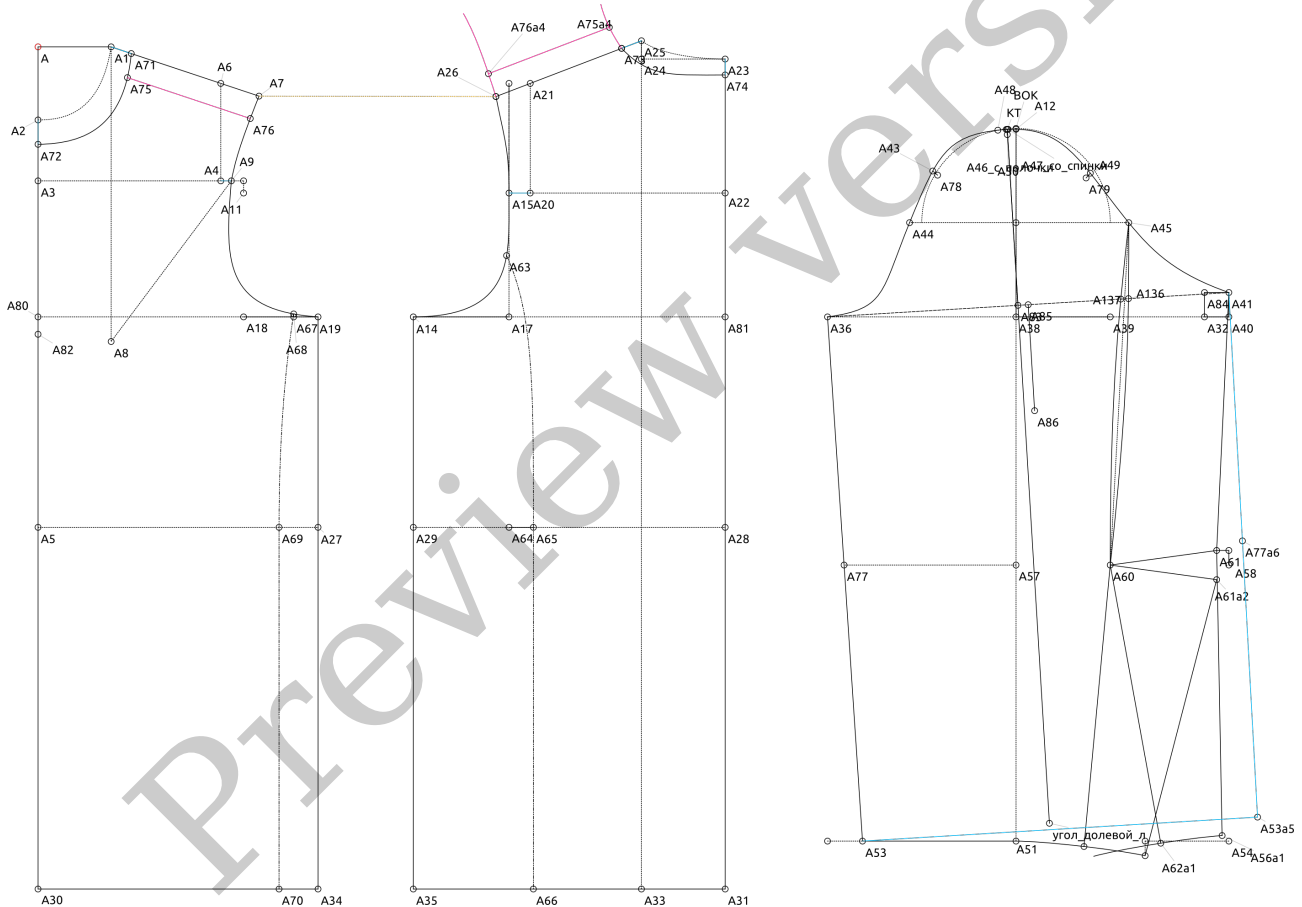


Figure 2.1: Example of a pattern

In the next three sections we will look into the basics of working in the main application (Valentina) from the Valentina project set. We will get to know the other two in time.

The pattern-making process is roughly divided into three stages: drawing, details, layout. These in turn correspond to three operation modes: “Drawing mode”, “Details mode”, “Layout mode” (see fig. 2.2). In this chapter we will look at the basics of creating a drawing in “Drawing mode”. The other two will be discussed in the following chapters. To switch to details or layout mode, at

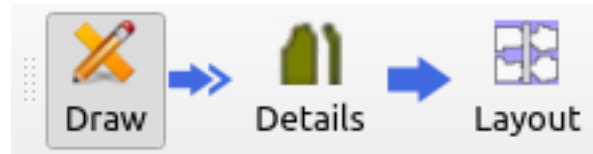


Figure 2.2: Operation modes

least one detail must be created. Understanding the basics of the first mode is therefore very important.

The principles by which drawings are constructed in “Valentina” are slightly different from common practice. Our aim is not simply to reproduce the positions of points, lines and curves on the canvas, but to set the rules for their interdependency. Parametrization is another step towards smart patterns.

Let’s divide the approaches to working with patterns into generations. The first generation is a raster image. Drawing an image of lines or curves on paper or a monitor screen. There is no possibility of making any changes. To do so, you must erase the image or part of it and draw it in again. Concepts such as a line or a curve exist only in our imagination. The computer in this case operates with individual blocks of canvas – the pixels. This method is still very popular. It allows you to concentrate on the main thing and is often used as a way of saving already completed patterns for sale or as storage medium.

As you know, images are subdivided into raster and vector images. In the case of technical drawings, the idea of vector images comes in handy. This is because we are now operating with a set of basic primitives: points, curves, complex polygons, the list can be rather enormous. By changing their parameters: size, position, angle, outline colour, fill colour, pen thickness, etc., you can create images. The use of vector images is what we will refer to as the second generation. The main advantages of vector images are the ability to edit the parameters of basic primitives at any time and the simplicity of scaling. Such images are already easy to create, but without adapting to the need for pattern-making, it is not as easy to work with.

The third generation is the logical progression from the second. The vector image is handled in software adapted to these needs. At its core, the process is not that different. Such software is convenient because it is pattern-making oriented. Other sets of basic primitives, additional tools, collections of ready-made blocks. The big advantage of this generation is the modelling unit, which allows complex transformations to be made easily over the finished piece contours. Although such advanced modelling is not directly related to the subject of our discussion – pattern-making.

Finally, the fourth generation. We include “Valentina” as part of it. The vector image is advancing to a new level. Whereas the previous level is characterised by a set of objects being placed in “random” order, the parametric pattern in “Valentina” requires that the order in which the objects are placed be organised. This allows a quick rebuild or gradation of the pattern. The advanced toolkit of “Valentina” makes it quite easy to parametrize a pattern, but the modelling process still needs improvement.

To start working on a new pattern, start the “Valentina” app and select “New”. Set a name for the drawing and select units (see fig. 2.3). The scene and tools will then be available to you.

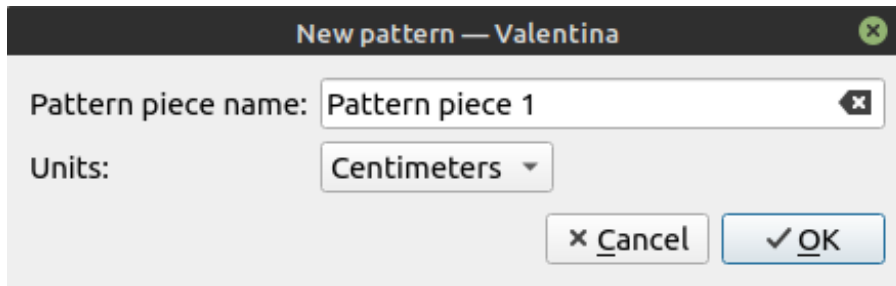


Figure 2.3: Creating a new project



Measurement units cannot be changed later.



Figure 2.4: List of pattern pieces

When working with a pattern file, you must treat one file as a project. “Valentina” supports the conditional splitting of the project into several drawings. Each such drawing allows you to group sets of objects and details under one name. You can only work with one drawing at a time. The active drawing is selected via the drop-down list (see fig. 2.4). When the active drawing is selected, objects from all other drawings become inactive.



The drawing list is sorted alphabetically. To control the order of the drawings in the list, add a number in front of the name.



Figure 2.5: Base point

Each drawing has one mandatory object, the base point. The base point is the origin of coordinates for objects for the entire drawing. You can use this object to move the drawing to a new position or delete the drawing from the project. The base point is easy to find on the drawing it always has a red circle colour (see fig. 2.5).



If the project consists of a single drawing, it cannot be deleted.

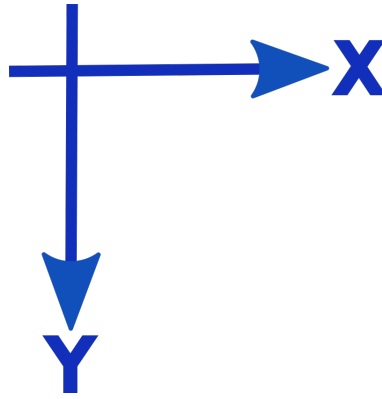


Figure 2.6: Direction of coordinates

The two-dimensional space on which the construction takes place has a coordinate grid with the origin at (0; 0). The X coordinate increases from left to right and the Y coordinate from top to bottom (see fig. 2.6). You can only manipulate the coordinates directly in the case of a base point. For all other objects, the coordinates are calculated in relation to their base objects. Origin is also used in cases where values cannot be calculated as a default value. It is there that you should look for the point in case of calculation errors.

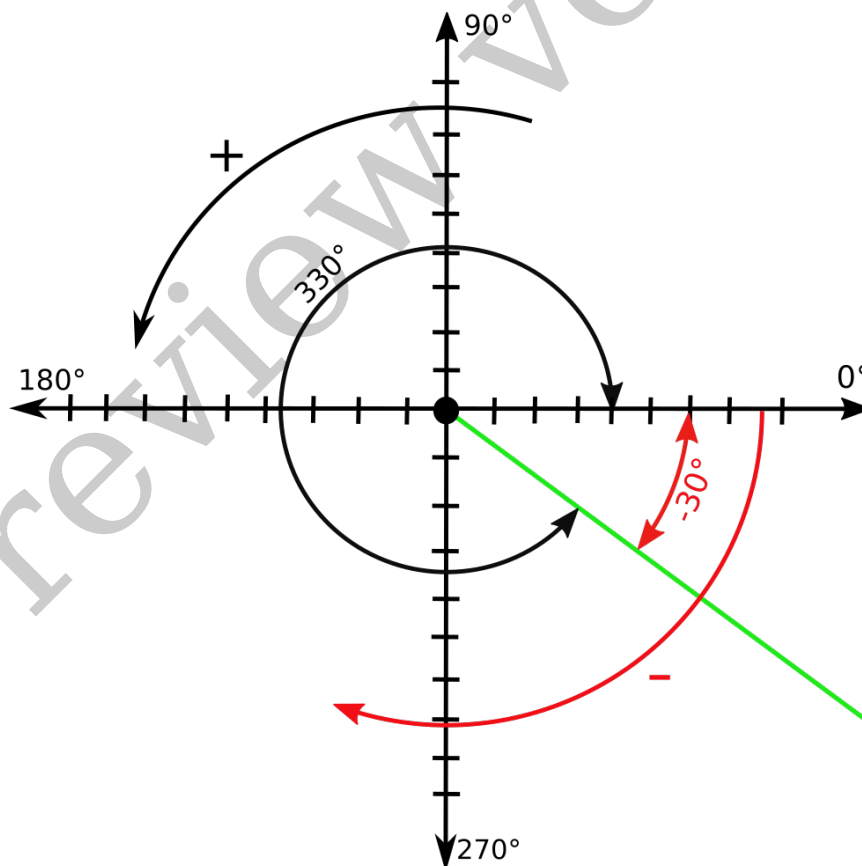


Figure 2.7: Working with angles

The angle values in “Valentina” are measured counterclockwise (see fig. 2.7). Zero degrees starts from the left to the right of the point on the horizontal. Negative values indicate clockwise movement.

In order to change the scale, you can use the toolbar, menu **Pattern piece** or the mouse wheel with the **Ctrl** key pressed.

To the left of the canvas you will find a toolbar, conventionally organised into groups. To activate the tool, click on it with the left mouse button and follow the prompts at the bottom of the window. Depending on the type of instrument selected, you will need to select objects in the scene and enter additional parameters.

To edit an object, hover the mouse cursor over it and click the right mouse button to call up the context menu. And then select “Options”. To quickly access an object’s parameters, simply highlight it by left-clicking on it. Afterwards, make changes to the “Tool Options”.



If the “Tool Options” tab is not active, you can activate it in the menu **Window**.

Currently, the program does not have the ability to fully trace all dependencies between objects, so deletion and editing options are limited. If the delete option is inactive, it must first be activated. Deletion is only possible in reverse order. You must first manually delete any objects that depend on this object, only then will you be able to remove it. If an object is used in a detail, that detail must first be deleted.



If you cannot unlock the delete option, try closing and opening the file again. Sometimes this helps to update the dependency information.

When placing objects on the canvass, linking to existing objects is mandatory. For example, for a segment, you need to specify the starting point of the segment, as well as the length and angle. Other types of tools may require a greater number of references. The tool types for “Drawing mode” will be covered in 5. “Tools”. You can select reference objects either by left-clicking on the circle or by clicking on the point label. Follow the visual prompts provided to you by the software to confirm registration of your selection.



Visual tips include changing the colour and thickness of lines as well as changing the mouse cursor.

To save a new file, select **File** > **Save As**. Give the file a name and choose a place to save it.



Remember to save your progress regularly and back it up on file to avoid the possibility of losing data.

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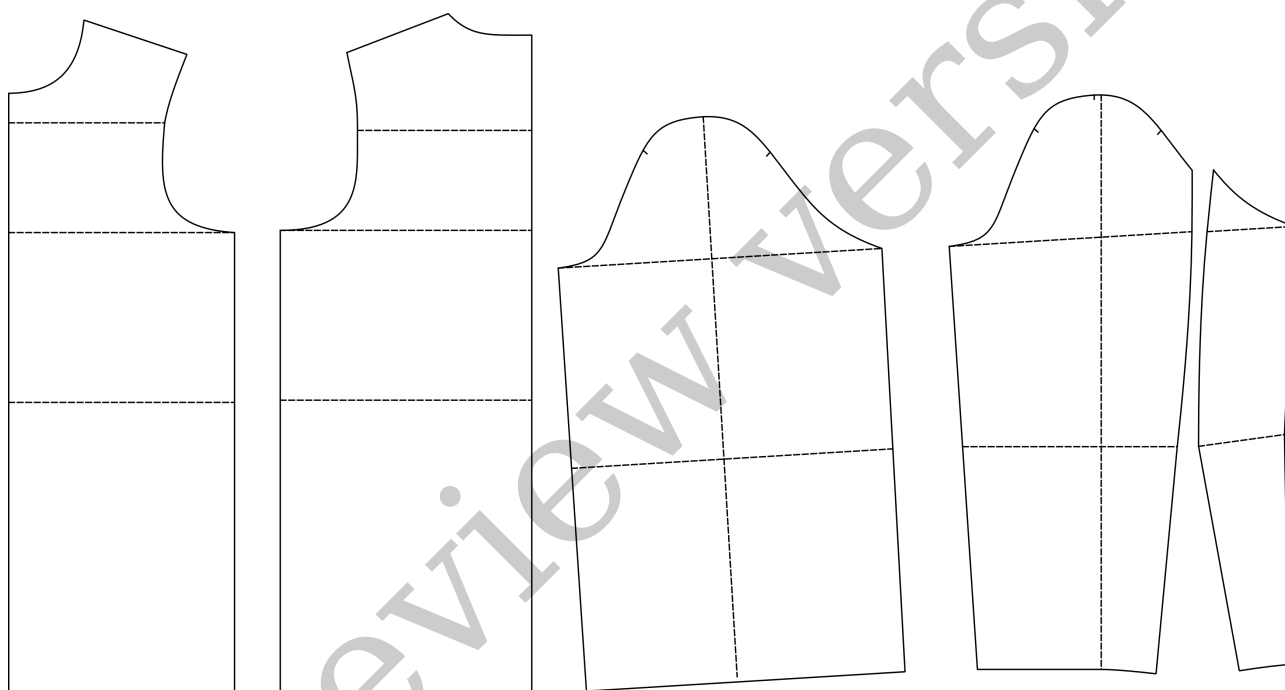


Figure 3.1: Details

Creating a pattern drawing is just the beginning. In order to be able to print or export our pattern, the detail must first be created. Working with details takes place in “Details mode”, but before you can switch to this mode, you must first create at least one detail.

To create a detail, you need to describe the main contour of the detail. To do this, select the “Workpiece tool” in “Drawing mode”. Follow the program tips and select the main contour of the detail. Select objects in a clockwise direction. Complete the selection by pressing the button, if you have done it correctly, the button will be active. You only need to confirm the creation of the new detail by pressing .



Working with other workpiece parameters takes place after the main contour has been created, so is not available at the start of workpiece creation (see fig. 3.2).

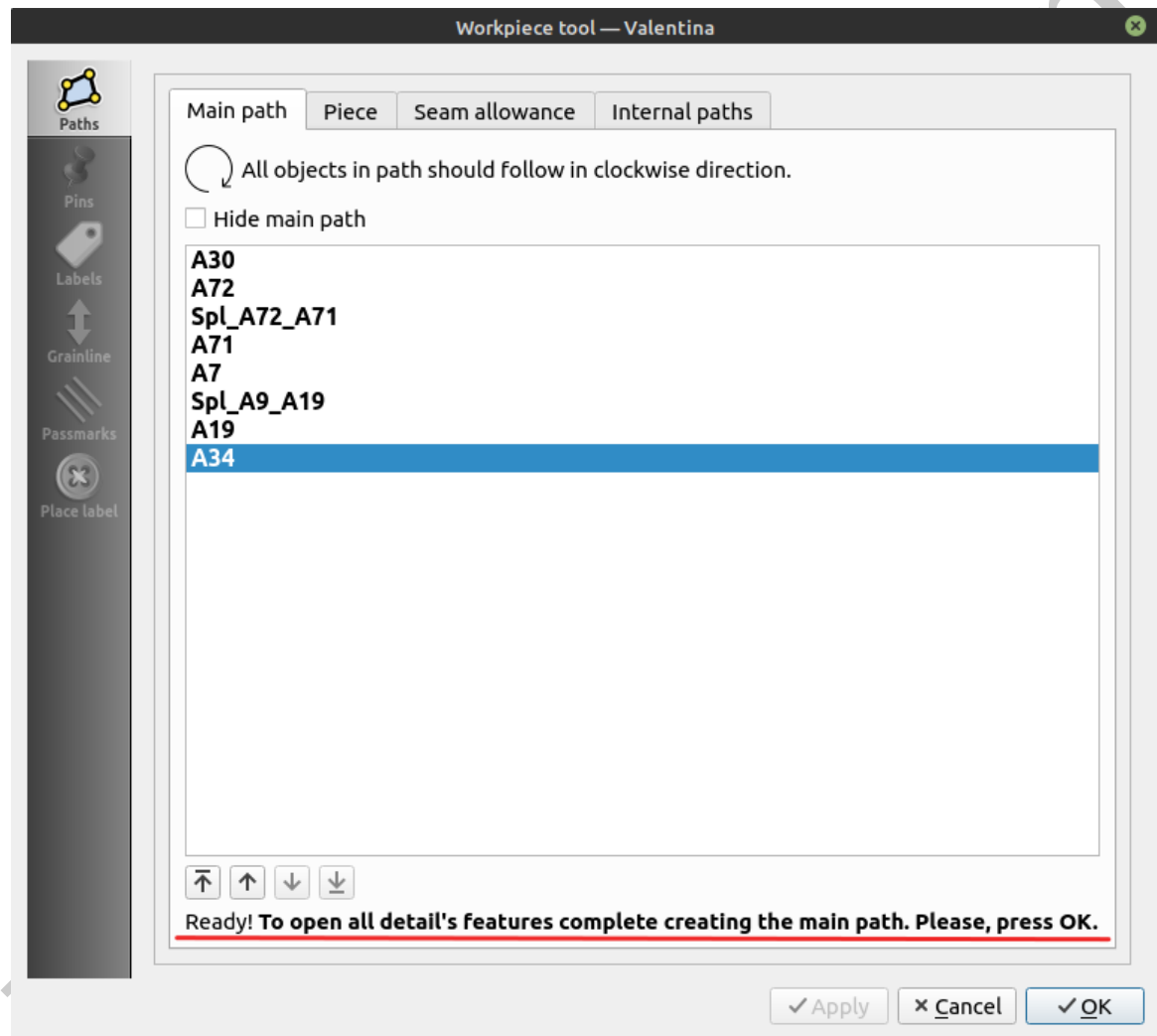


Figure 3.2: Completing detail creation

After creating a detail, you must switch to “Details mode” to continue working with it. Call the detail options dialogue via the context menu to continue with the settings.



More detailed configuration of the piece will be covered in [7. “Detail”](#).

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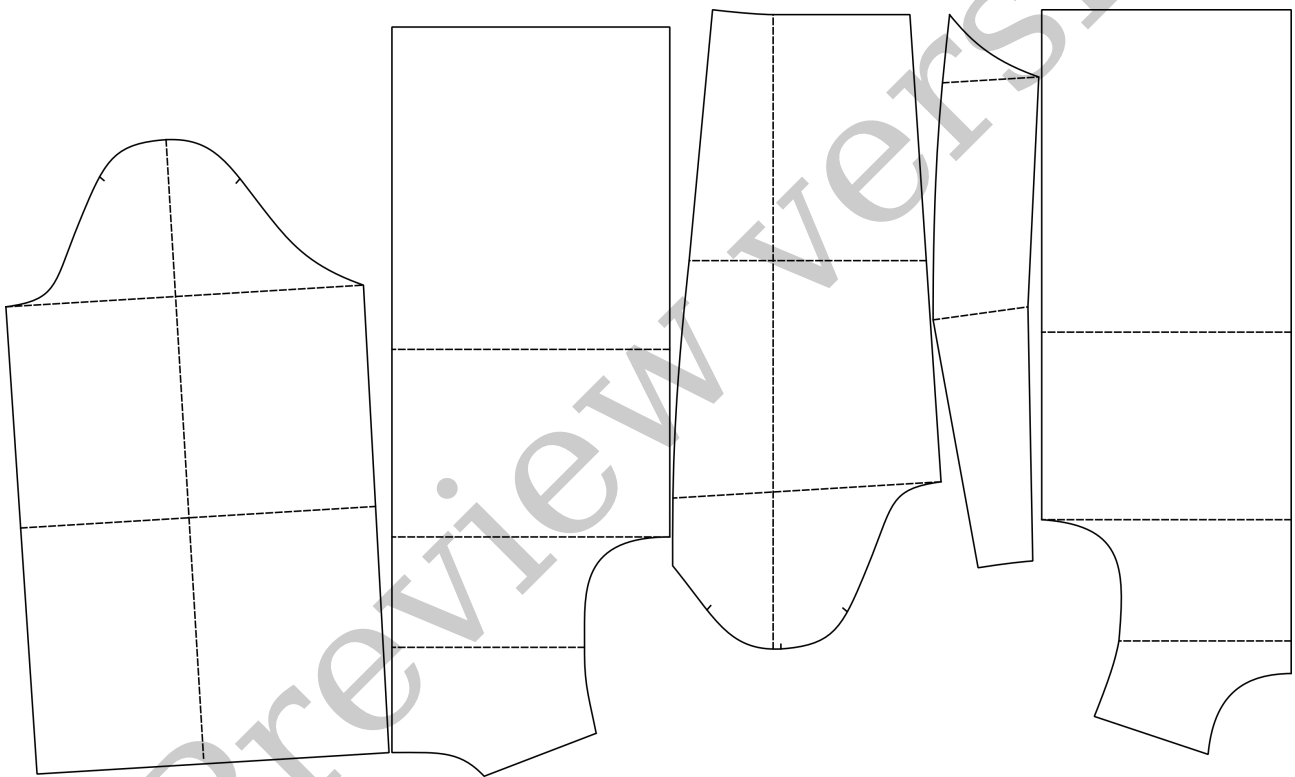


Figure 4.1: The arranged details

Creating a layout is one way of preparing data for export. To do this, you must first create at least one workpiece. To create a layout, go to “Layout mode”. If the layout has not yet been created, the layout settings dialogue will automatically be activated. All you need to do is set the settings correctly and start the creation process.

The most common mistake when creating a layout is to choose the wrong layout paper format (see fig. 4.2). The paper size refers to the space available to arrange the workpieces. It should not be mistaken for the final printing format, such as A4. The splitting into individual tiles for printing on A4 takes place in a later step.

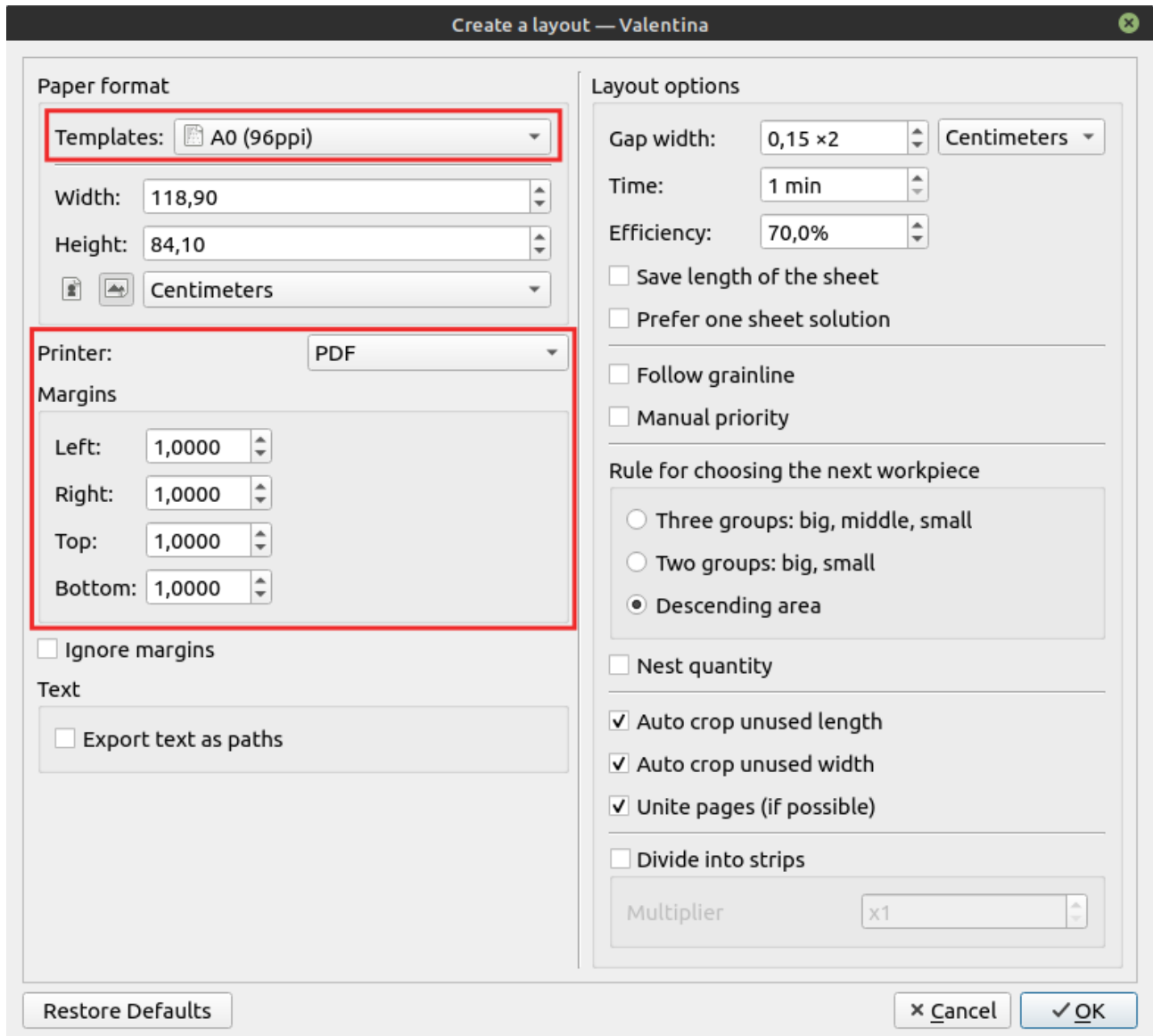

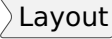


Figure 4.2: Configuring the automatic layout

If you plan to print your layout in the future, you should also set the printer's margins correctly. Leave enough space around the edges of the sheet to allow the image to be printed completely.

Once you have completed the layout process, you will have access to printing functions as well as exporting the layout. For this you can use the menu  **File**  **Layout**, or the appropriate tool on the Layout tab.



For more details on the layout, see [8. "Layout"](#).


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This part is not available in the preview version of the book. Buy the full version in order to access the whole content.




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5.1 Creating points



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5.2 Creating lines



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5.3 Creating curves



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5.4 Group operations



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6.1 Formula



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6.2 Internal variables



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6.3 Increments



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6.4 Multiline formulas



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6.5 Measurements



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6.5.1 Individual measurements



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6.5.2 Multisize measurements



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6.5.3 Separator



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6.6 Formula Wizard



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7.1 Main contour



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7.2 Seam allowance



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7.2.1 Types of corners



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7.3 Notches



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7.4 Internal path



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
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7.5 Place labels



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7.6 Labels



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7.7 Pin



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7.8 Inserting nodes



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7.9 Merging



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7.10 Copying a detail



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8.1 Automatic



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8.1.1 Settings



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8.1.2 Export



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8.2 Manual



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8.2.1 Using



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8.2.2 Export



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A number of optional features of “Valentina” extend the functionality of the software, but are not mandatory, so they are placed in a separate chapter.

9.1 Background image

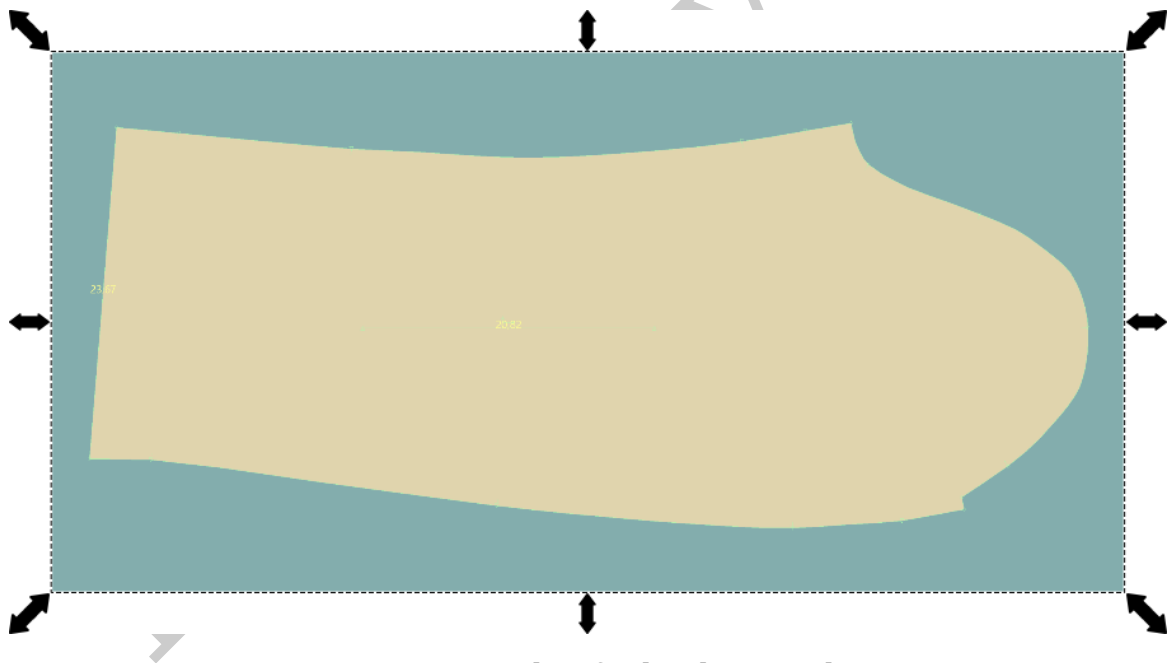


Figure 9.1: Example of a background image

The background image function (see fig. 9.1) allows you to add background images in Drawing mode. Such images can be used for many purposes:

- Reproducing the shape of already existing patterns.
- Use as a ruler to draw smooth curves.
- Putting decorative images, such as embroidery, to make it easier to design a model.
- Adding an image of the future product to make it easier to design.

Both raster and vector format images are supported for use as background images. If possible, it is recommended to use vector images as they support zoom without loss of image quality.

You can move the image to the desired position, resize the image, set the rotation angle and fix the position on the scene.

If you are using a background image to port already finished details to a “Valentina”, you need to take care of matching the scale of your background image to the scale of the “Valentina”. In this case you need to know the linear dimensions of the detail and you need to set off the same distance with “Valentina”. All you have to do is to position the workpiece correctly and make the control lines to match the size. To do this you can use the rotation and scaling functions. After achieving the desired result, it is necessary to disable the transformation parameters of the background image, in order to do so, it must be fixed.

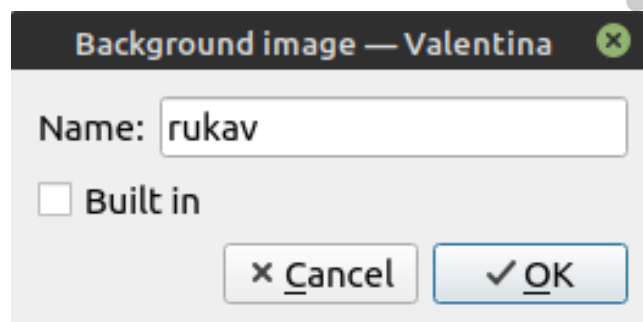


Figure 9.2: Adding a background image

Adding an image is possible in two modes: as an embedded image and as a link to a file (see fig. 9.2). The embedded image is saved in the pattern file and you don't have to worry about location of the image file. It does, however, increase the file size. When adding only a link, only the path to the file is written. You should make sure that the application is always able to find the image file.

9.2 Exporting the drawing and details

In addition to exporting the layout, “Valentina” supports the export of drawings and details.

Export drawing allows exporting drawing image for further work. To export, activate the tool from the toolbar and select the path and name of the new file (see fig. 9.3a). Export is only possible in SVG format. The resulting image will contain all drawings of the object with objects visible at the time of export.

Exporting details avoids the need to create a layout for cases where it is not necessary (see fig. 9.3b). You may find direct export of details useful if you plan to create a layout yourself in Puzzle or a third-party application. Or you only need details data for further work without needing to keep them compact. For example, for importing for a virtual fitting on a 3D mannequin.

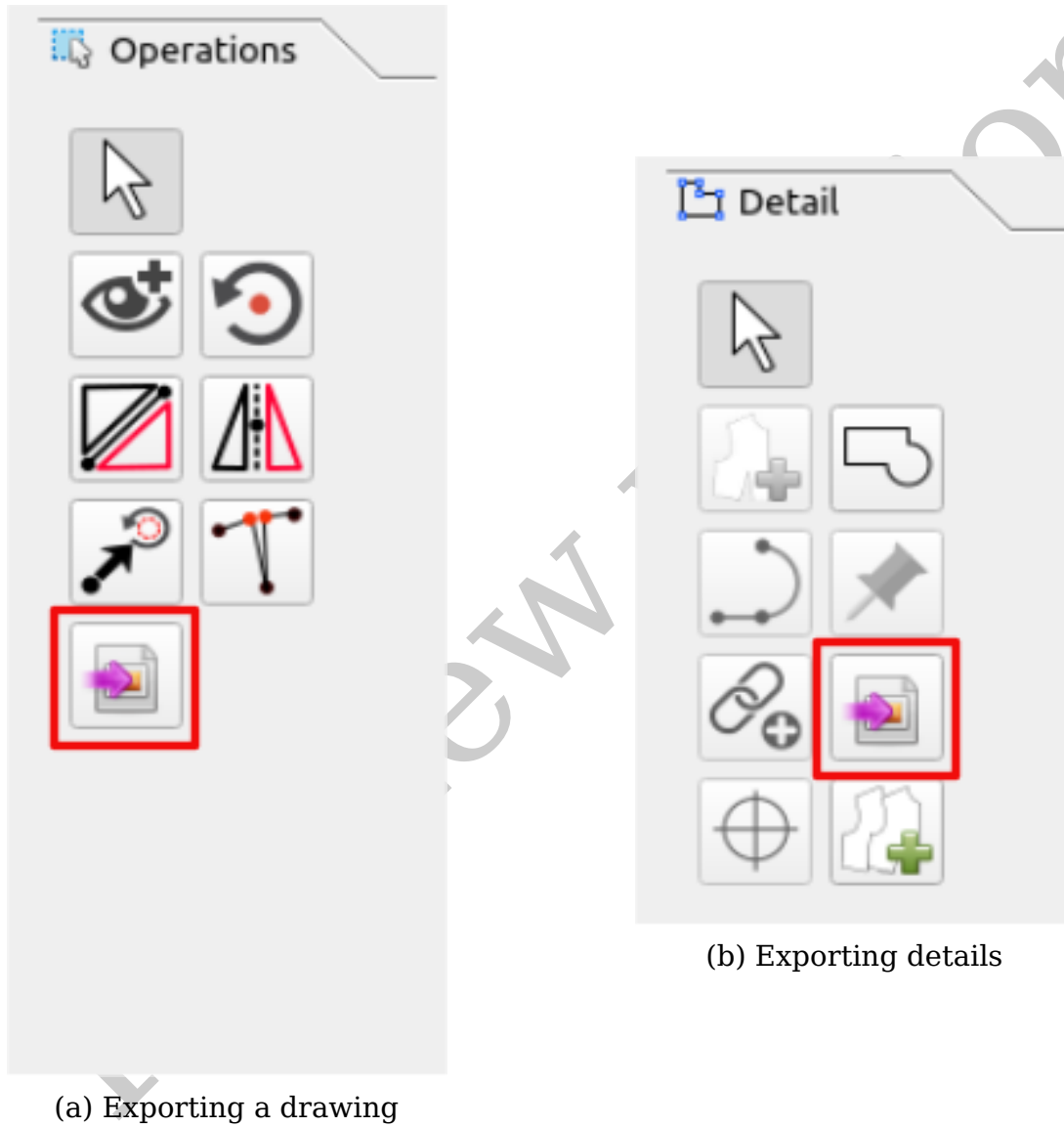


Figure 9.3: Tools for exporting drawing and details

9.3 Final measurements

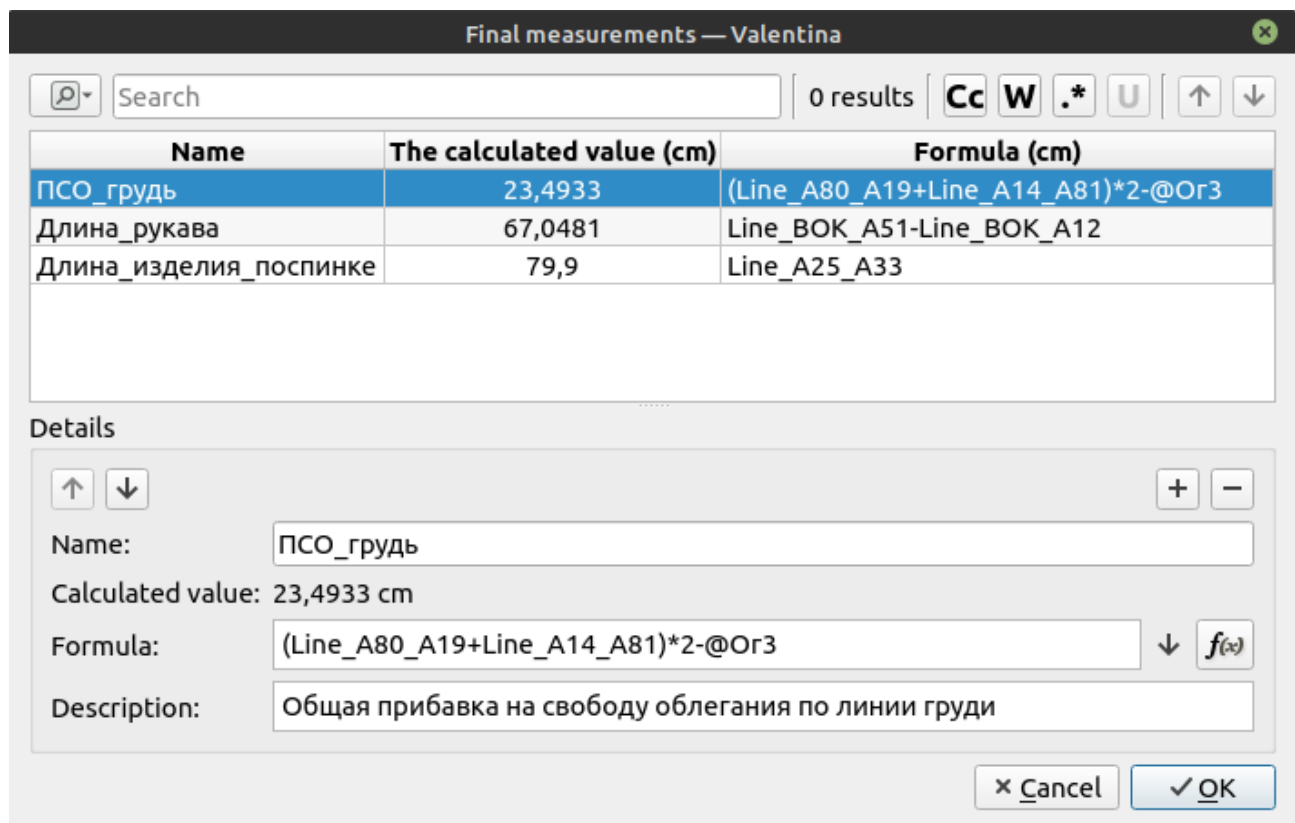


Figure 9.4: Dialog “Final measurements”

The final measurements allow you to get measurements values after the drawing has been calculated (see fig. 9.4). Such data is useful in production, as it allows you to control during production.

In order to export, final measurement records must be created, using a special dialog window. Each record should have a name and a formula for the calculation. Additionally, a description can be added to document the purpose of the measurement. Use menu **File** → **Measurements**, **Final measurements** to activate the dialogue window.

The final measurements are exported in CSV format. Use menu **Measurements** → **Export final measurements to CSV**.

9.4 Program settings

To change application settings, you will need to use the Properties dialogue. Each of the three applications in the “Valentina” suite has its own dialog. Some settings are common, so you only need to configure them in one of the applications. In all cases use menu **File** → **Properties** to open the dialog.

To apply the changes, press the **OK** button.



In this book we will not look at all the settings, but only the most important ones.

9.4.1 Valentina

The settings in the main application are divided into three main sections: Configuration, Pattern, Paths.

Configuration

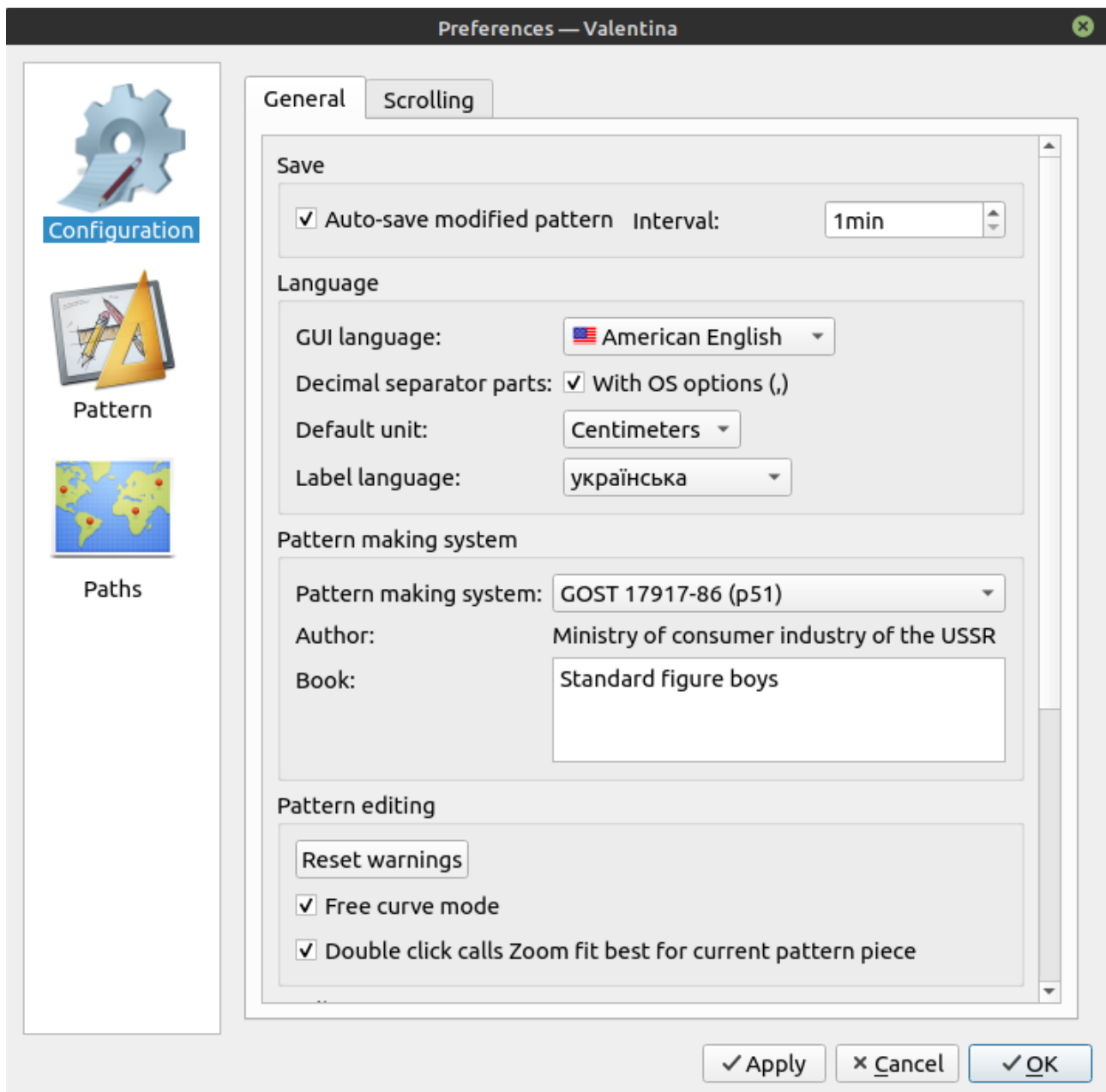


Figure 9.5: Section “Configuration”

Section “Configuration” is responsible for global program settings (see fig. 9.5).

Autosave of the modified pattern allows you to create a backup copy of the last changes. It is recommended to leave this function on. However, you should not forget to create backups.

This is where you can change the interface language.

The “Decimal separator” setting allows you to control the type of decimal separator. This can be either a dot or a comma. The change will affect how the formula will be displayed.

“Point label language” allows you to control the alphabet of automatically generated point labels. For each new drawing the next free letter from the alphabet is taken. For example, for the first drawing the labels A1, A2, A3 etc. will be used. The second drawing will already have labels B1, B2, B3 etc.

Activate “Free curve mode” to make dynamic curve modification more comfortable. In free curve mode, changes in the drawing only take place after the user releases the curve. This avoids wasting time rebuilding the drawing at the slightest change in the position of the curve.

For each type of operating system, there are standard file dialogs such as “Open file”, “Save file” etc. The use of the native file dialogs is recommended when using the program. However, there may be situations where such dialogs do not work correctly. In such cases it is possible to switch to the built-in versions. These have a unified appearance for all OS types, but are lacking in functionality compared to the native file dialogs.

Pattern

The “Pattern” section allows to customize the appearance of the drawing and also to set default values for some parameters (see fig. 9.6).

Using OpenGL allows faster rendering of the drawing image, putting this on the shoulders of the graphics card and freeing up CPU resources. The system must have support for this feature to activate. If not, you will see a black screen instead of a drawing field. In this case rendering should be disabled.



“Valentina” does not require extensive calculations to create a pattern image, so the OpenGL effect can be minimal.

“Curve Approximation” allows you to control the accuracy of Bezier curve calculations. The higher the value, the more points will be involved in drawing the curve, and the smoother it will be. The value applied to all curves which have a default approximation value - 0.

The “Show the second notch on the seam line” setting allows the user to activate the display of the second notch on the seam line.

The Known materials management dialog allows to create a list of known materials, which can then be used to define placeholder values (see [section 7.6. “Labels”](#)).

Paths

The “Paths” section allows you to configure default paths for common directories using “Valentina” (see fig. 9.7).

9.4.2 Tape

The Tape settings options are similar to “Valentina”, so we won’t cover them in detail.

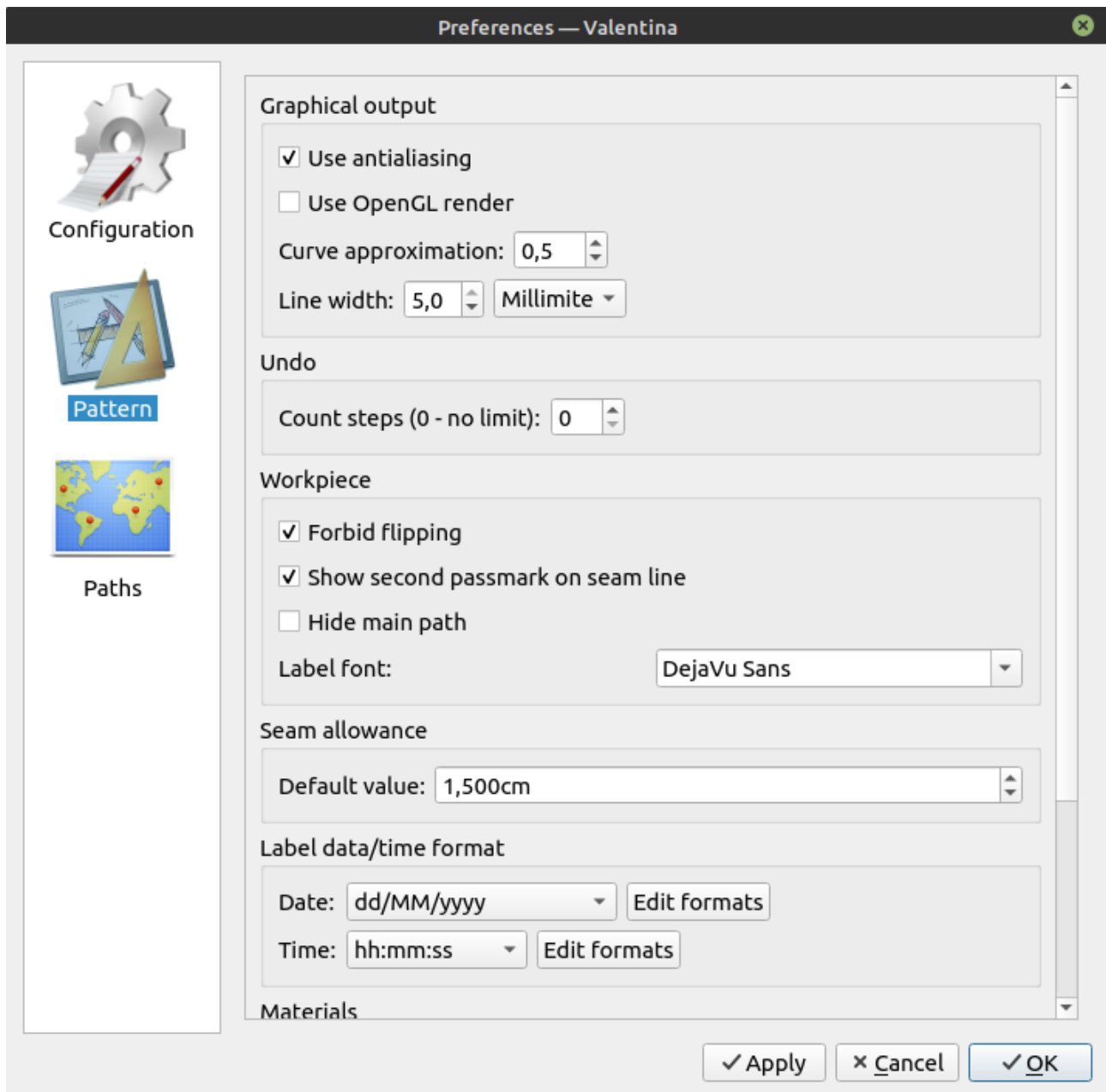


Figure 9.6: Section “Pattern”

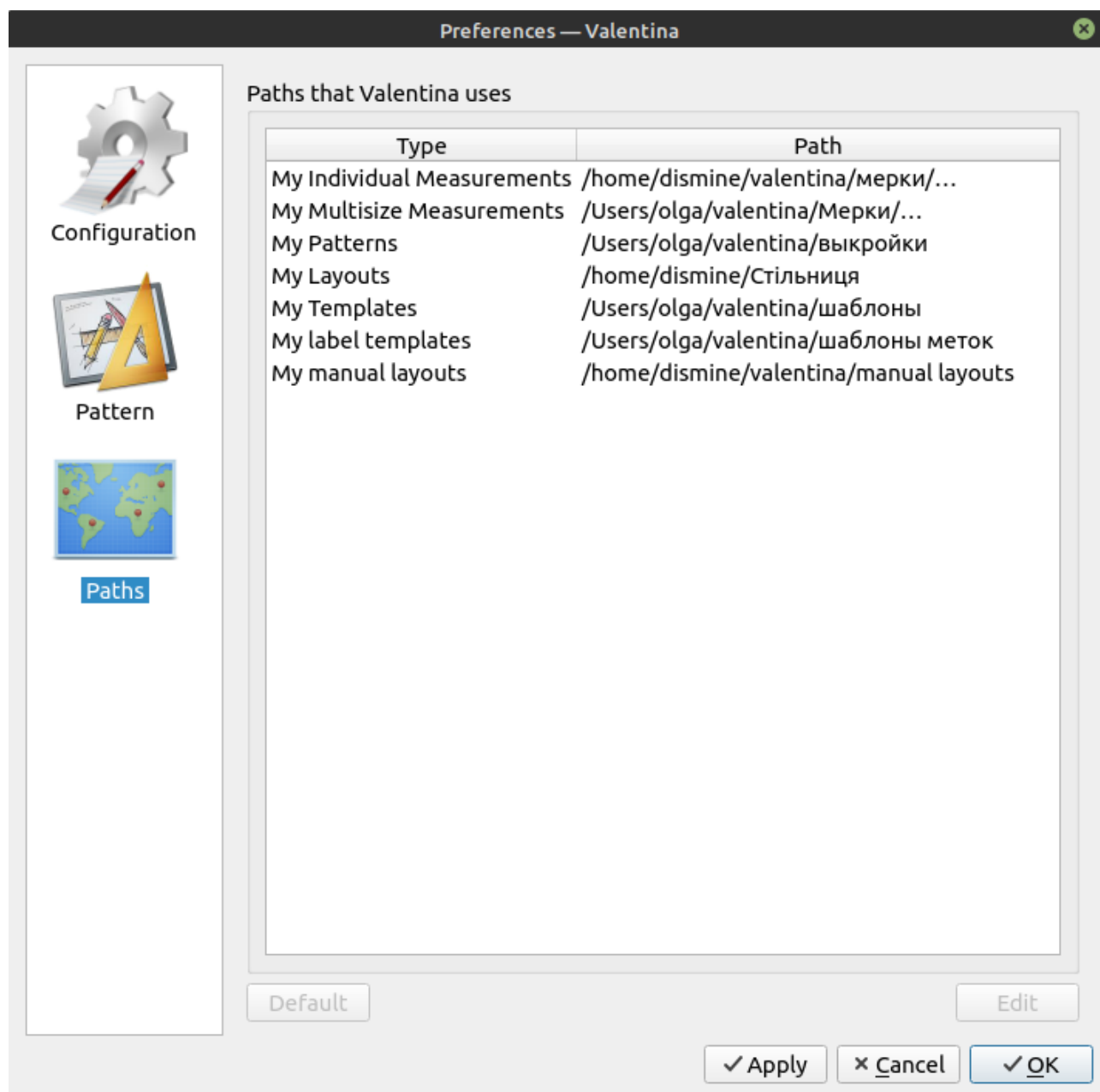


Figure 9.7: Section “Paths”

9.4.3 Puzzle

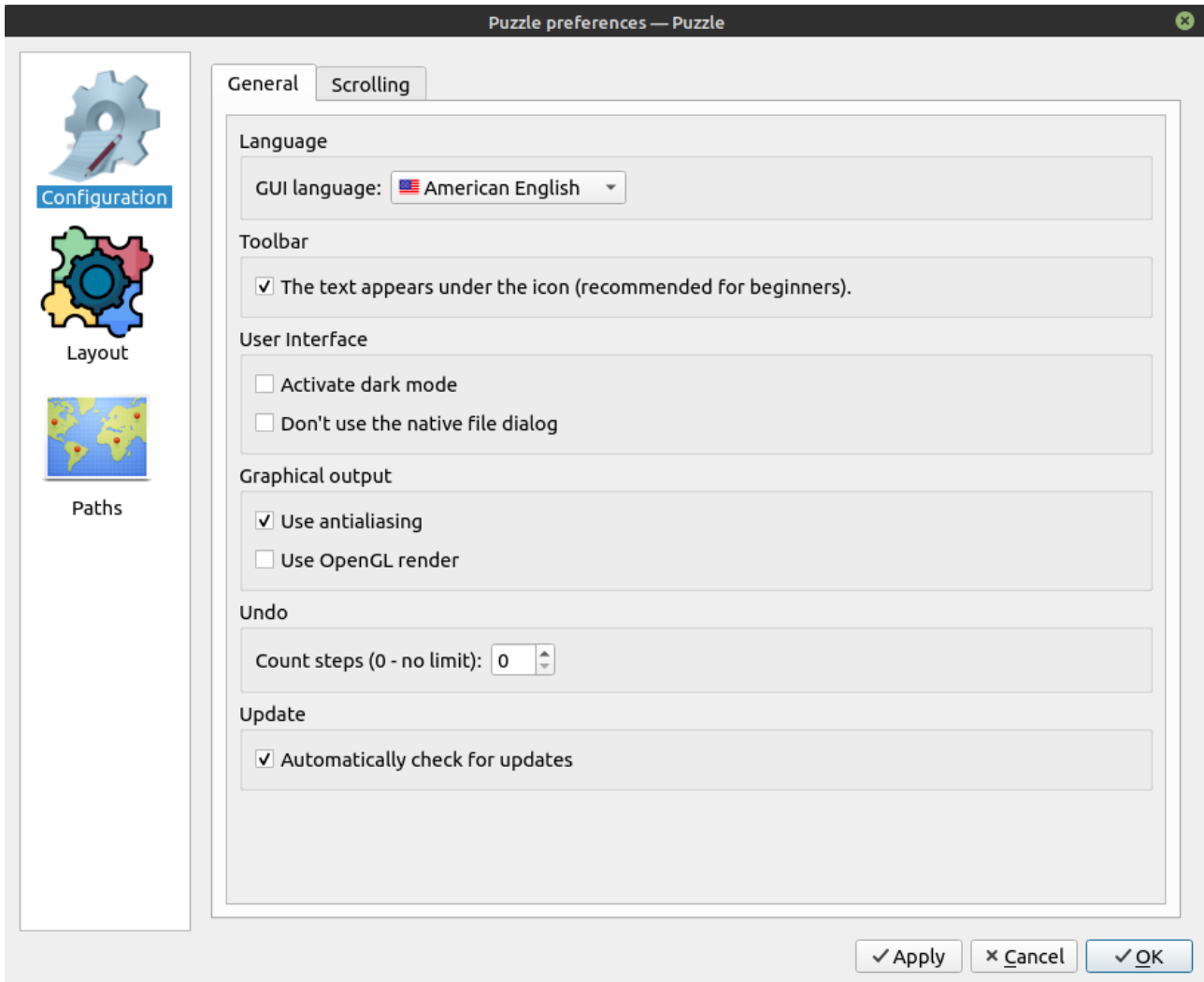


Figure 9.8: Section “Configuration”

Similarly to the main application, Puzzle settings are divided into three main sections: configuration, layout, paths (see fig. 9.8).

For us, the biggest interest is the Layout section (see fig. 9.9). The other two have similar options to the main application.

Layout

Settings in the Layout section allow you to set a default value for the layout project. This means you don’t have to waste time adjusting the layout settings every time.

Particularly noteworthy is the “Line width” parameter. It controls the width of the pieces on the scene. At the same time, this value will affect the export and print parameters, based on the principle of what you see is what you get.

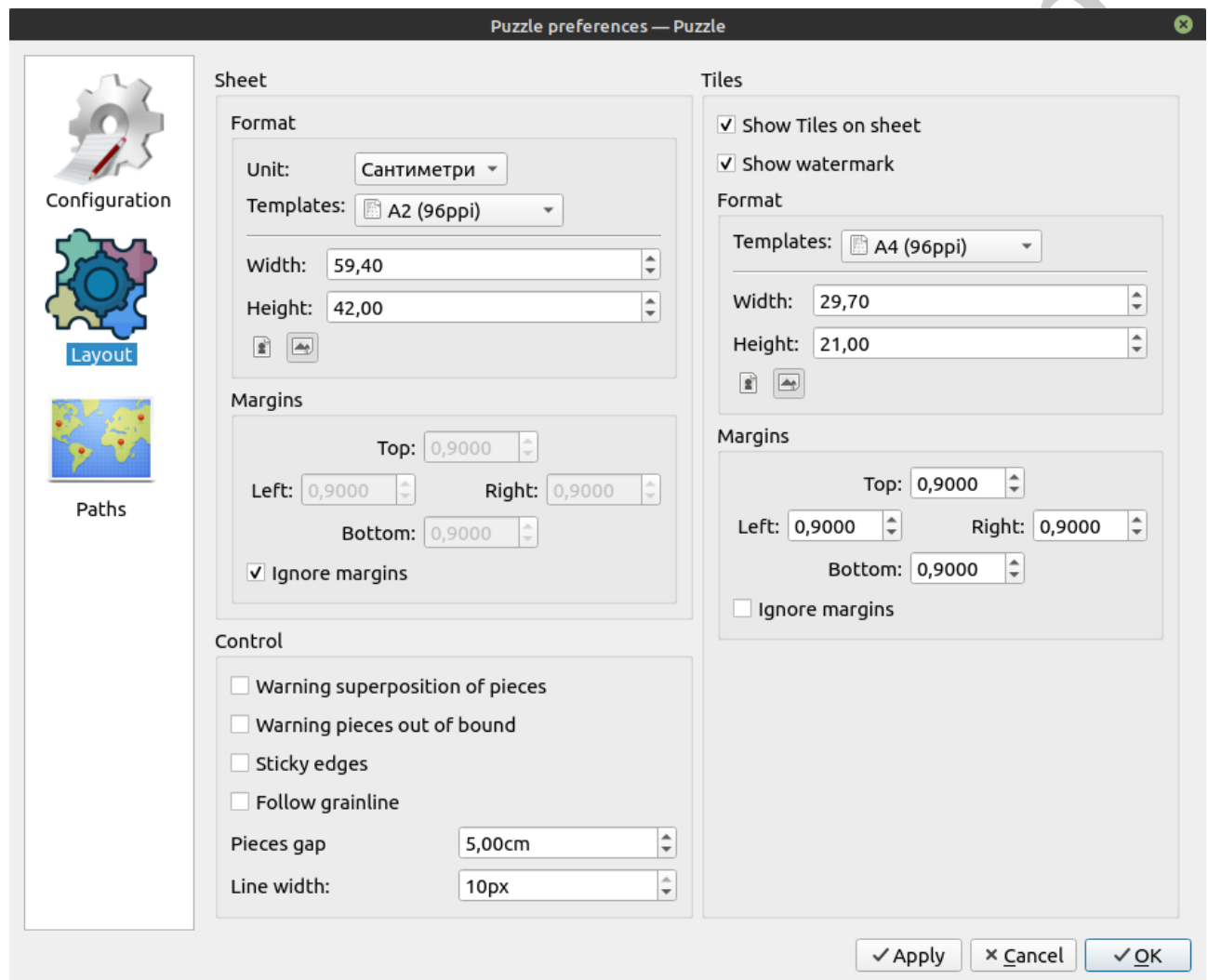


Figure 9.9: Section “Layout”

9.5 Watermark

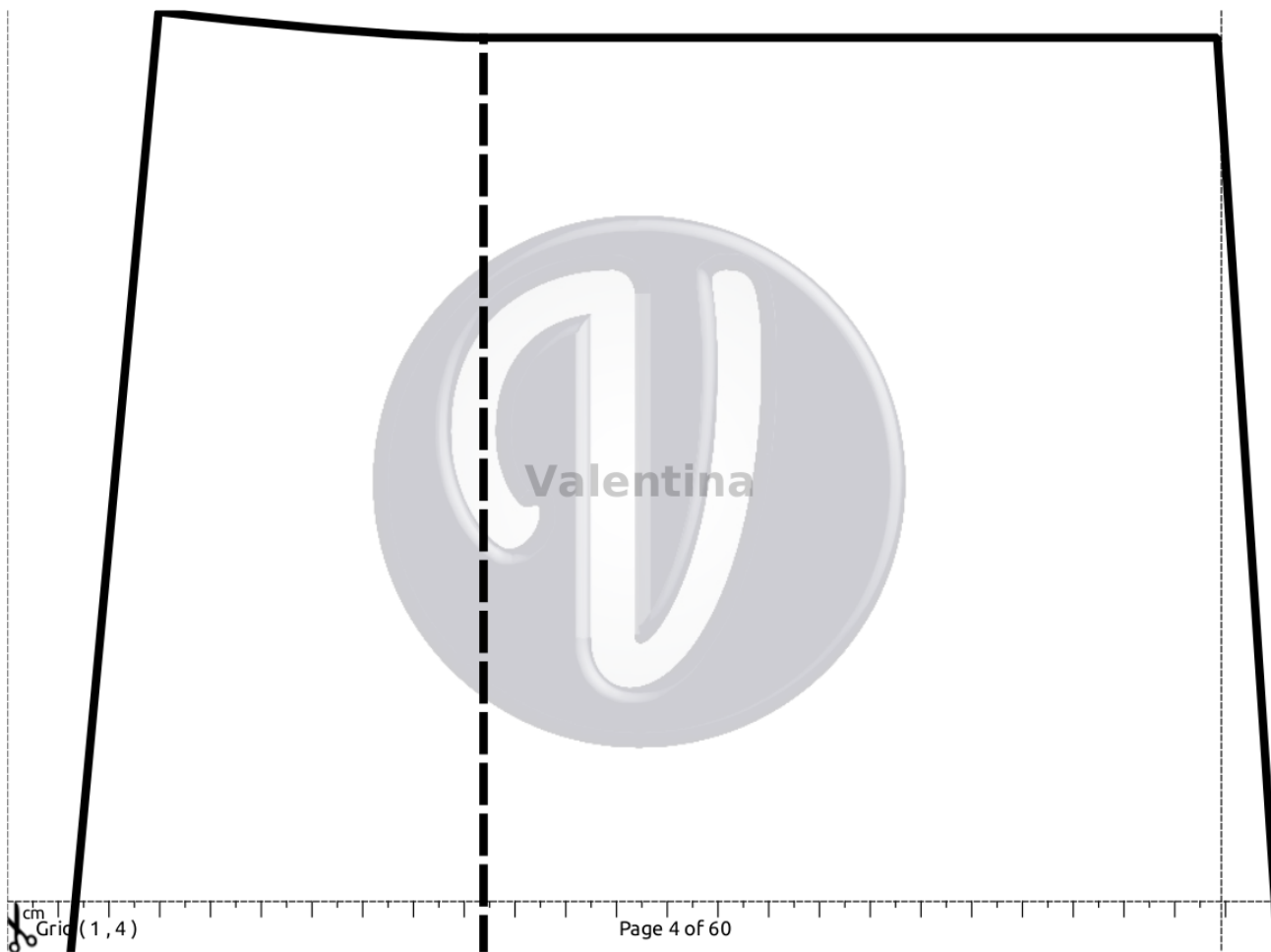


Figure 9.10: Watermark example

Placing logos and signatures is a frequent way to protect one's intellectual property (see fig. 9.10). "Valentine" allows you to add a watermark when printing or exporting a PDF file. Adding watermark is supported for both automatic and manual layouts.

In both cases to add a watermark it is necessary to first create a special file with watermark settings and then attach it to a pattern or manual layout (see fig. 9.11).

In the watermark settings you can add a text and an image. Select the level of transparency for them, as well as the rotation angle.

The watermark is always placed in the centre of the tile sheet.

Preview is only possible when working with manual layout (see fig. 9.12). If a watermark has been added to the file, it will be automatically added when exporting the PDF with tiles.

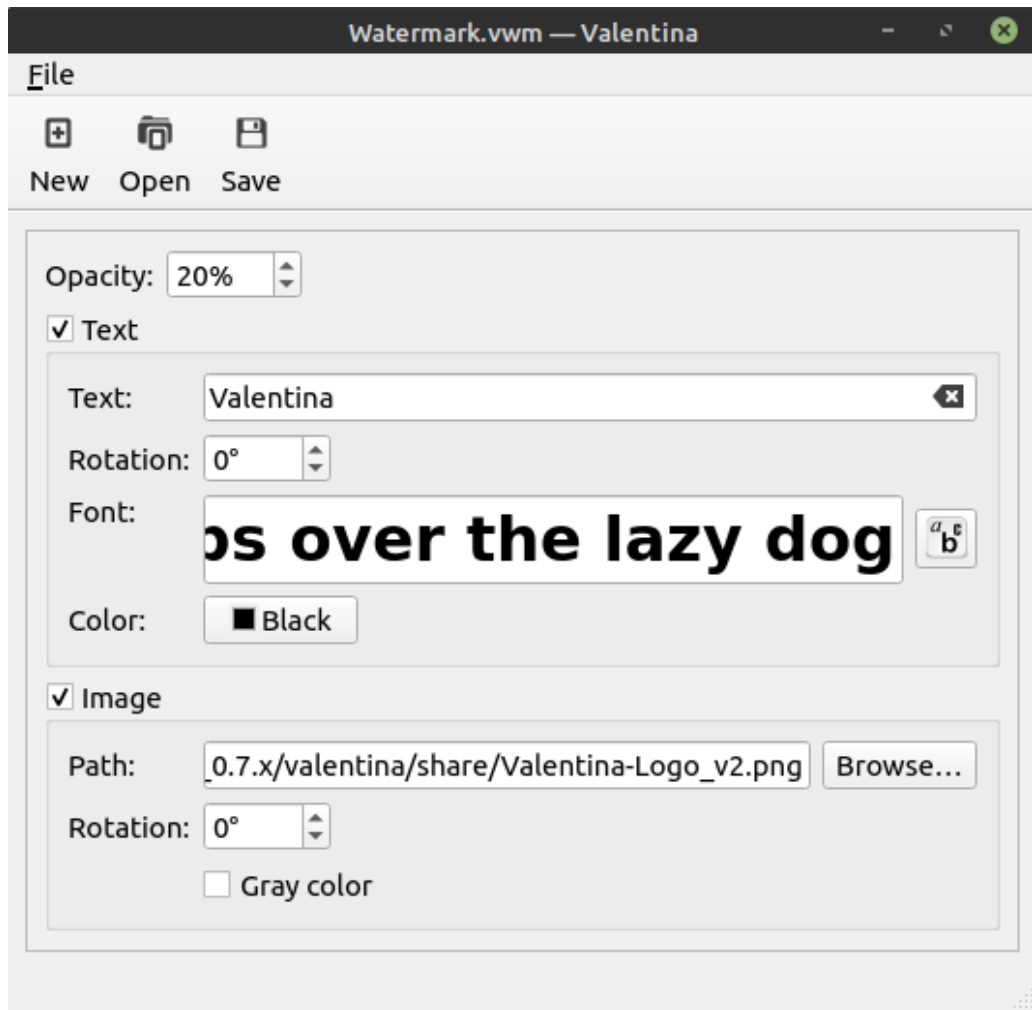


Figure 9.11: Watermark editor

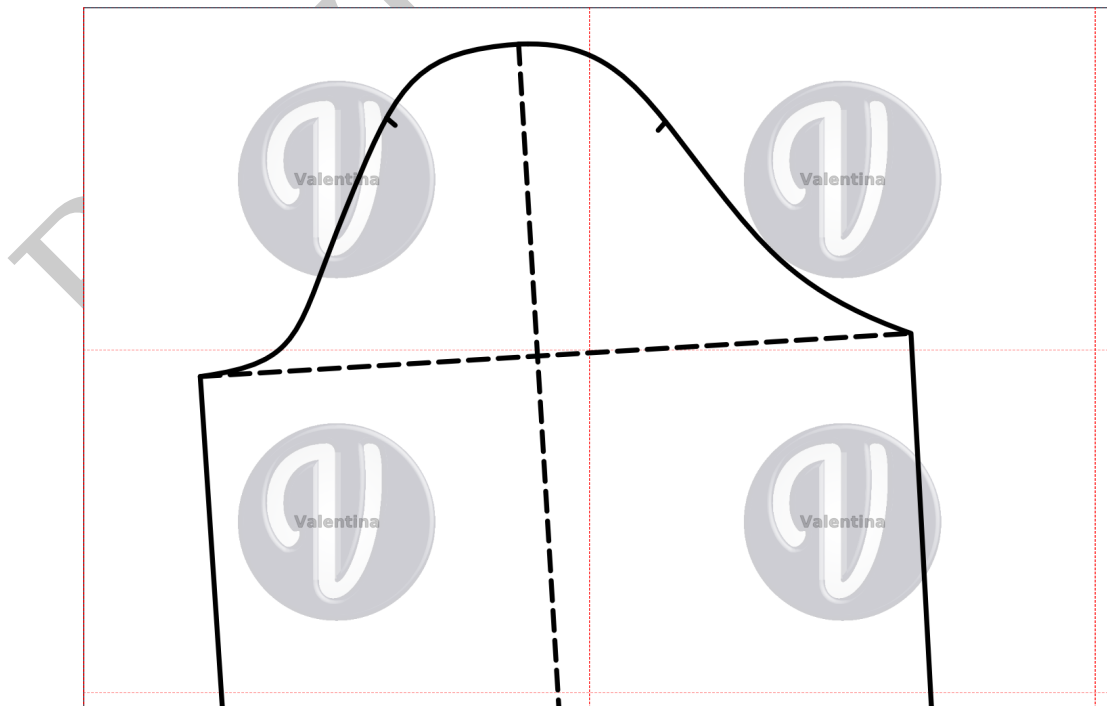


Figure 9.12: Previewing the watermark in the Puzzle app

9.6 Export and import of measurements

For data exchange with third-party applications, Tape provides export and import data in CSV format. CSV (comma-separated values, sometimes character-separated values) is a text file format for exchanging tabular data. With its simplicity, it allows easy exporting and importing of measurement tables.

9.6.1 Export of measurements

In order to export the measurements, use menu

File > **Export to CSV**. After that select directory and new file name in special dialog window.

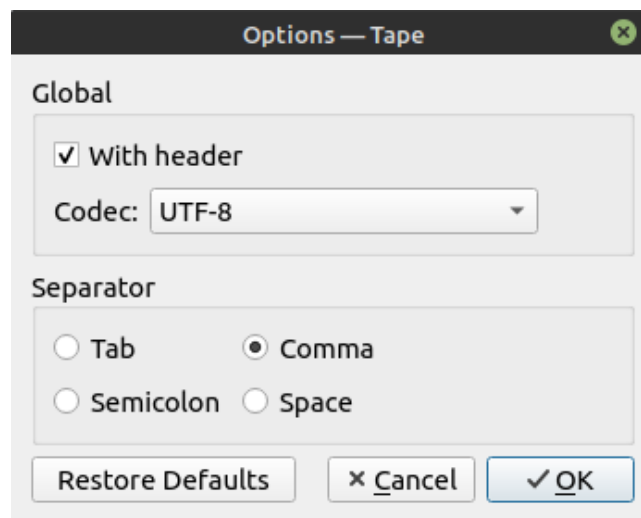


Figure 9.13: Configuring the export of measurements to CSV

To complete the export, you must specify CSV settings (see fig. 9.13). Depending on your needs, you can add headers to your table columns. Choose the right codec for your needs. You can also select the desired separator from a choice of four available separators.



The type of codec you use will affect the encoding of the data. An incorrect choice may result in corrupted data. Unless required by a third party application, it is best to use the universal utf-8 encoding.



The choice of delimiter affects the export settings in the third-party application. For this reason, it is best to remember the separator type.

When exporting measurements, the result will always correspond to the current state of the table. In the case of multi-dimensional tables, it's impossible to export all possible variants at once using this method.

9.6.2 Import measurements

In order to import measurements, use menu

File > **Import from CSV**. Select file for import and make initial settings (see fig. 9.14).

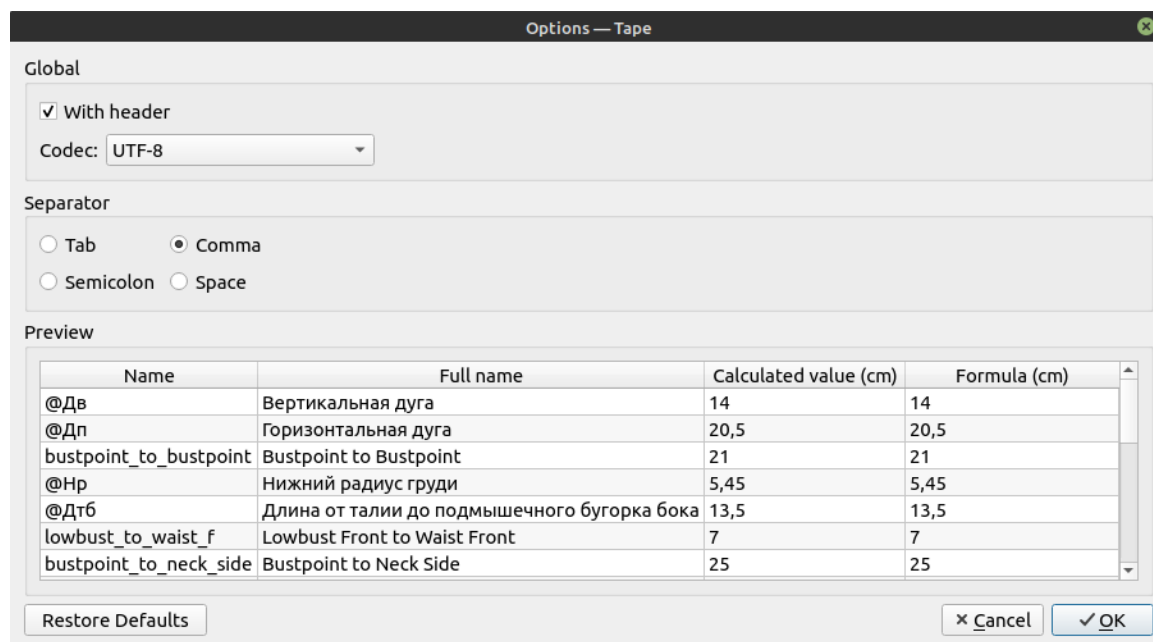


Figure 9.14: Configuring measurements import to CSV

During the initial setup phase, you will need to tell the software the structure of your file. Determine whether the table has a row with column headers. Determine the correct codec used to create the file. Also specify the data separator. When selecting parameters, the preview field will help you to understand if your settings are correct. If everything is specified correctly, the table will have the correct shape with rows, header and columns defined in the correct places.

Once the CSV file parameters have been specified, the correct column order for import must be specified. The process for individual and multisize measurements is slightly different, but has the same principles.

The “Input data” field shows the content of the file as it is. The table content in the “Import” field must match the headers defined by the program. Use the drop-down lists in the “Columns” section to specify the correct number for each column. Columns with an asterisk (*) are required for identification. Each column must have a unique value. An optional column can be skipped. If a file contains more columns than required by the program, they will be ignored.



To quick identify the column number of the table, trigger the tooltip by hovering and holding the mouse pointer over the header name in the “Input data”.

In case of individual measurements (see fig. 9.15) you need to specify import order for four columns. Two of which are optional.

In the case of multisize measurements, you need to specify import order for seven columns. Two of which are optional.



The number of required columns depends on the parameters of the multisize table.

After configuring the column order, the records of the imported measurements will be added to the file. The existing data in the table will not be overwritten.

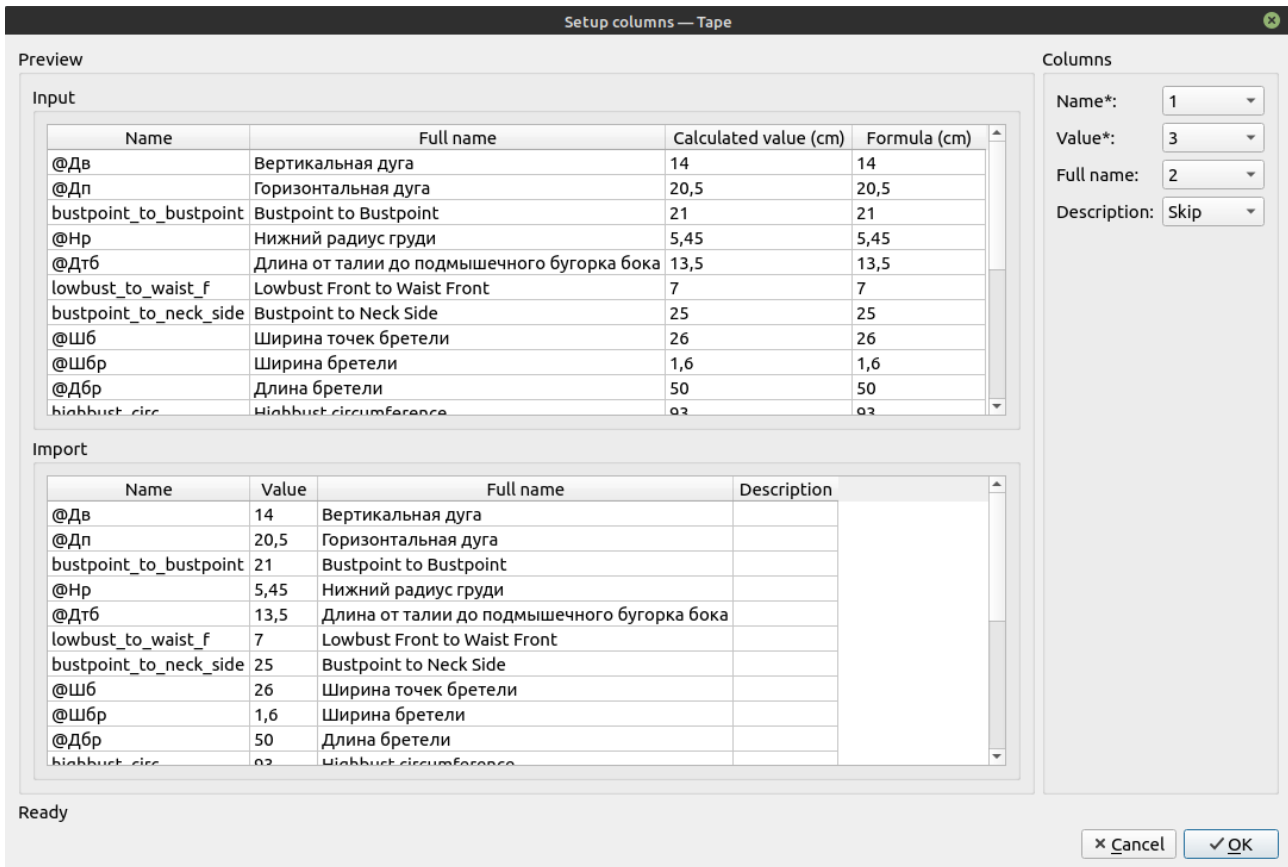


Figure 9.15: Configuring the columns for importing individual measurements

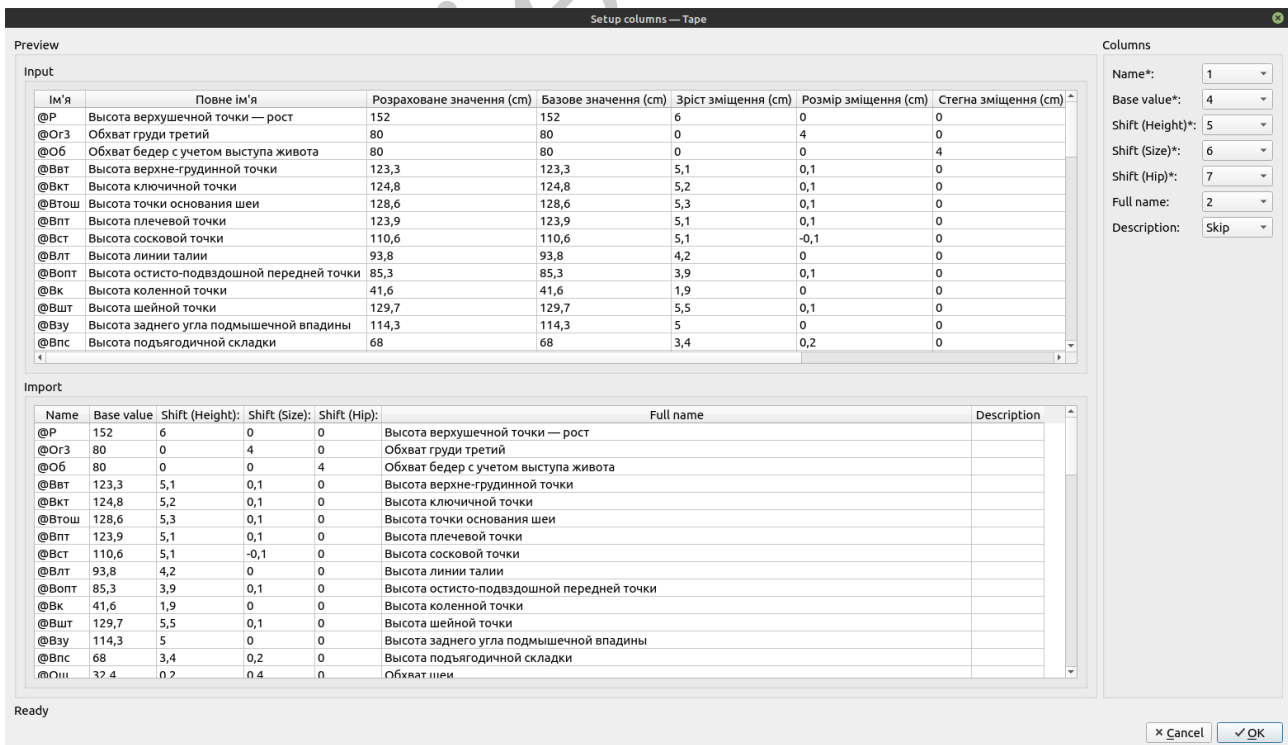







Figure 9.16: Configuring the columns for importing multisize measurements

-  If the file already contains a measurement with the same name, the import will crash.
-  Import and export have different purposes and therefore different data structures. Therefore, they are not mutually compatible. Importing previously exported data requires additional configuration.

9.7 Shortcuts

Using the mouse is not the only way to interact with the program interface. Typical operations are often quicker to perform if you know the special keyboard shortcuts. “Valentina” supports a number of keyboard shortcuts for typical tasks that you can use in your work.

-  Currently, “Valentina” does not allow you to assign your own shortcuts to actions.
-  The above shortcuts will be oriented specifically towards Windows users. Therefore, the **Ctrl** must be replaced with the appropriate one for your OS. **Cmd** for Mac OS X, and **Alt** for Haiku OS.
-  Some keyboard shortcuts may not work if they are not compatible with your OS type.

Shortcut	Action
Ctrl + N	New file
Ctrl + S	Save
Ctrl + ↑ + S	Save as
Ctrl + W	Drawing mode
Ctrl + E	Details mode
Ctrl + L	Layout mode
↑ + Ctrl + N	New drawing
Ctrl + H	History
Ctrl + +	Zoom in
Ctrl + -	Zoom out
Ctrl + =	Zoom fit best
Ctrl + 0	Original zoom
Ctrl + Z	Undo

Shortcut	Action
↑ + Ctrl + Z	Redo
Ctrl + T	Variables Table
Del.	Delete object
Ctrl + Q	Exit
L	Activate the last used tool
Ctrl + PgUp	Previous drawing
Ctrl + PgDown	Next drawing
Esc	Cancel tool selection
↑ + +	Increase label font
↑ + -	Decrease label font
↑ + 0	Original label font
Alt + L	Hide all labels on the drawing

Table 9.1: Valentina app shortcuts

Shortcut	Action
Ctrl + N	New file
Ctrl + O	Open
Ctrl + S	Save
Ctrl + ↑ + S	Save as
↑	Move the detail one pixel upwards
↓	Moving the detail one pixel downwards
→	Moving the detail one pixel to the right
←	Moving the detail one pixel to the left
Ctrl + ↑	Moving the detail ten pixels upwards
Ctrl + ↓	Moving the detail ten pixels downwards
Ctrl + →	Moving the detail ten pixels to the right
Ctrl + ←	Moving the detail ten pixels to the left
←, Del.	Delete a detail from the sheet
[Turn the detail 15° to the left
]	Turn the detail 15° to the right
Ctrl + [Turn the detail 90° to the left

Shortcut	Action
Ctrl +]	Turn the detail 90° to the right
Alt + [Turn the detail 1° to the left
Alt +]	Turn the detail 1° to the right
Home	Move the detail to the front
Up	Move the detail position vertically upwards
Down	Move the detail position vertically downwards
End	Move the detail to the background
Ctrl + +	Zoom in
Ctrl + -	Zoom out
Ctrl + =	Zoom fit best
Ctrl + 0	Original zoom
Ctrl + Z	Undo
⇧ + Ctrl + Z	Redo
Ctrl + Q	Exit

Table 9.2: Puzzle app shortcuts

FREQUENTLY ASKED QUESTIONS

This chapter contains frequently asked questions and their answers.

How much is the price of “Valentina”?

This question can be answered with a counter-question: “How much costs freedom?”. As a matter of fact, “Valentina” is a project distributed under the open source software model. The philosophy of this movement guarantees the right for users to modify and distribute their modifications. In practice, this means that its components are available **absolutely for free**. On the other hand, it does not guarantee **absolutely cost-free**. Practice has shown that projects like “Valentina” need constant maintenance on code, writing tutorials and support. And this is where the **price of freedom** becomes clear. The user must choose between working independently to improve the project, or paying other people to do the work. You should always consider this factor when choosing a “Valentina”. **Are you prepared to pay the price of freedom?**

Can I sell my patterns and teach the program to others?

Yes. The project team or license does not restrict you in this way. You also do not need to receive permission to do so. Freedom in all its beauty.

I have not paid anything to the authors of the project and I am using it for free. Do I have the right to hide the pattern files?

Yes, according to the licence you have the right to do so. No person has the right to force you to publish details of your patterns.

How does grading work in “Valentina”?

When you create a pattern, you parameterise it. The more skilfully the pattern is designed, the better the grading will be. The basis of parameterisation includes formulas and logical expressions, as well as the laws of geometry. Grading is done by recalculating the parameters with the new input data: measurements and increments (see [section 6.3. “Increments”](#)).

Does “Valentina” support modelling?

Yes, “Valentina” supports modelling. But modelling operations are by nature far more complex than in classical CAD systems, which can put off many

newcomers. However, once you have passed the barrier, the software will rebuild your drawing itself, which cannot be done with classic systems.

I can't open the file anymore, what should I do?

Don't panic! If you are an experienced user, you can try to recover the file yourself. We recommend that you contact the developers for assistance. Usually the files are very easy to recover. You will get help!

What types of printers/plotters does "Valentina" support?

"Valentina" does not restrict your choice of printer or plotter. Any printer that your operating system supports will do.

Can I run "Valentina" on a tablet or smartphone?

"Valentina" has been adapted to work with desktop operating systems. There is no special version adapted to work on a tablet or smartphone. There are no plans to create such versions either.

What should I do if the pattern was printed at the wrong scale?

In most cases these problems occur when printing a PDF in a third-party application. Very often such applications will, by default, scale the image so that it fits entirely on a sheet of paper. Exactly this effect you need to avoid. To do this, make sure that the application in which the PDF is printed is set to 100% scale.

Part of the pattern image is not printed on the edges of the sheet. What can I do to fix this?

This effect occurs when the printer's margin settings are not enough for the printer on which you are printing. Printer margins are the area around the edges of the sheet where the printer cannot print over. Each printer model has its own minimum values for margins. You should take this into account when preparing the files. Select enough values for the left, right, top and bottom margins in Valentina or Puzzle before exporting.

Where can I get support if I have a question?

If you have a question or problem while working with "Valentina" you can use one of the contacts published on [our website](#) .

B

background image, 45

base point, 21

C

CSV, 57

D

Details mode, 27

details mode, 19

drawing mode, 19

E

export

 detail, 46

 drawing, 46

 final measurements, 48

 layout, 29, 44

 measurements, 57

F

final measurements, 48

formula

 Multiline formula, 36

I

import

 measurements, 58

installing, 13

 binary builds, 15

 source-code, 13

L

Layout mode, 29

layout mode, 19

M

measurements

 individual, 36

 multisize, 36

measurments

 separator, 37

O

origin, 22

S

settings, 48

shortcuts, 60

 Puzzle, 61

 Valentina, 60

T

tool

 workpiece, 25

toolbar, 23

U

updating, 17

V

variable

 measurement, 36

W

watermark, 55