

# The Palapeli Handbook

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# The Palapeli Handbook

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## **Abstract**

This is the manual for Palapeli, a jigsaw puzzle game based on KDE technology.

# Chapter 1

## Introduction

Palapeli is a single-player jigsaw puzzle game. With it you can create and play puzzles ranging from 4 to 10,000 pieces. This version includes facilities to assist in solving large puzzles (300 pieces or more) within the size limits of a computer screen.

The main Palapeli window is separated into two areas, the puzzle collection and the puzzle table.

This manual continues by describing those two areas.

## Chapter 2

# Browsing the puzzle collection

### 2.1 Playing puzzles and updating the collection

When you launch Palapeli for the first time, your puzzle collection already contains some sample puzzles that come with Palapeli. Click on one of them to start playing immediately. Later, when you have created some of your own puzzles (see below), you can also click on them to start playing.

Play takes place on the puzzle table; see [the section after next](#) for how to use the puzzle table.

#### NOTE

You can select and highlight puzzles in the puzzle list by pressing **Ctrl** and left mouse button together. Pressing the left mouse button or right mouse button without **Ctrl** opens that puzzle for playing in the puzzle table.

On Apple OS X you need to double-click the left mouse button to begin playing. A single click will just select and highlight one entry in the puzzle list.

As well as playing a puzzle, you can use the puzzle collection for the following actions:

- *create* new puzzles from images on your disk
- *import* puzzles made by others
- *export* puzzles to share them with your friends and the world
- *delete* puzzles you do not need any more

The following section shows how to perform these tasks with the toolbar buttons.

### 2.2 Toolbar overview

#### Create new puzzle

Opens a dialog which allows you to create a puzzle from an image on your disk. See [the next chapter](#) for details.

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### Delete puzzle

Any puzzles that you have selected in the puzzle list, will be permanently deleted from your collection.

<b>WARNING</b> This action cannot be undone.
---

### Import from file

When you have received a Palapeli puzzle file (which can usually be recognized by the file extension \*.puzzle), you can use this action to import it into your local collection. Puzzle files can also be played by simply clicking on them in the file manager of your choice, but after the import, the puzzle will appear in your local collection, and you can safely delete the downloaded puzzle file.

### Export to file

This will export the currently selected puzzles to files, in order to enable you to give them to your friends, publish them on the web, or make backup copies of your collection.



## Chapter 3

# Creating new puzzles

### 3.1 The puzzle creation dialog

As described in [the previous section](#), you can create new puzzles by clicking on the **Create new puzzle** button in the puzzle collection window.

Clicking this button opens the puzzle creation dialog, which consists of three pages:

1. On the first page, select an image file which will be sliced into pieces. Be sure to enter the correct metadata for the image: You should give attribution to the author of the image (e.g. the photographer or the painter); please respect the copyright of the image author.
2. On the second page, you can select the type of pieces into which the image will be sliced. Palapeli comes with a collection of slicers preinstalled, but third-party slicers may also be available.
3. On the final page of the dialog, the selected slicer can be customized e.g. by choosing a different piece count or by adjusting parameters of the piece shape. The available set of options depends which slicer has been selected.

This manual will continue to discuss the slicers which come with Palapeli. If you have downloaded a third-party slicer plugin for Palapeli, please refer to the documentation of this plugin if you have trouble installing or using it on your system.

### 3.2 Simple slicers

Palapeli has two simple slicers, 'Classic jigsaw pieces' and 'Rectangular pieces'. These slicers create simple rectangular pieces either with or without connecting plugs.

Both slicers allow the piece count and the aspect ratio to be adjusted. Dragging the aspect ratio slider to the left results in tall pieces, adjusting it to the right produces wide pieces. The default selection produces approximately square pieces.

### 3.3 The advanced Palapeli Slicer Collection

The Palapeli Slicer Collection produces realistic jigsaw pieces with various basic patterns:

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### **Rectangular grid**

Contains the well-known rectangular pieces.

### **Cairo grid**

With its pentagonal pieces and unequal edge angles, it's rather hard to puzzle because the pieces fit together in an unfamiliar manner.

### **Hexagonal grid**

Produces hexagonal pieces, arranged like honeycomb cells.

### **Rotrex grid**

Through a special composition of triangular, hexagonal and rectangular pieces, the pieces form a pattern resembling to many intersecting circles.

### **Irregular grid**

This grid is available only if you have installed qvoronoi from the [qhull package](#). qvoronoi is used to calculate irregular piece shapes from randomly placed points.

The Palapeli Slicer Collection has various parameters which control the appearance of the piece edges, especially the plugs on them. Default settings are provided for all of these parameters. An additional preset mode is available which reduces the amount of parameters to a bare minimum. The following parameters are available usually:

### **Approx. piece count**

#### **Flipped edge percentage**

The probability for each plug to be flipped. A plug is considered flipped if it points in the opposite direction as it would in a fully regular grid. On the rectangular grid, this results in pieces with 3 or 4 plugs pointing inwards resp. outwards. Position the slider at the very left to obtain the normal fully regular grid. In the middle, plug orientation is random. At the right, the grid is fully regular again, but with an 'alternate' rule. This does *not* mean reversal of all plugs: In the alternate regular grid, for instance, each piece has four inward-pointing or four outward-pointing plugs. This setting has no effect in the irregular grid.

#### **Edge curviness**

Determines how curvy the edges are, i.e. how strongly the borders dent in or bulge out. Move the slider to the very left to obtain straight edge lines (except for the plugs).

#### **Plug size**

Determines the size of the plug part of each edge. The default setting (middle position of the slider) is chosen to look like a real puzzle. The slider ranges from 50% to 150% this size, which already looks obscenely large. The program tries very hard to avoid collisions between plugs. Colliding edges are reshaped multiple times and shrunked in small steps. However there still remain cases where no solution can be found, especially for large plug sizes.

#### **Diversity of curviness**

Determines how much the curviness (see above) varies between edges. Move the slider to the left to make the dents and bulges look all the same. At the right, there may occur very curvy and very straight borders.

#### **Diversity of plug position**

Determines how much the position of the plug on the edge varies. At the very left, plugs are affixed to the middle of their edge.

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### **Diversity of plugs**

Determines how individual the plugs look like. At the very left, plugs look all the same. At the very right, each plug will be a unique piece of art crafted especially for you.

### **Irr.: Diversity of piece size**

Only for irregular grid: Determines how the piece size varies. A very small setting means nearly no variation; crystallite-like structure arise. Higher settings produce very small and very large pieces.

### **Dump grid image**

Save an image of the grid (black edges on white background) at `~/goldberg-slicer-dump.png`. If a previous dump exists, it is overwritten.

## Chapter 4

# Playing on the puzzle table

### 4.1 Basic moves



The object of the game is to assemble the given pieces into an image.

The floating Preview window shows you what that image should be. Use a toolbar or menu action to show or hide the window. For a detailed description, see [The Preview window](#).

If you wish to attempt a puzzle that has 300 or more pieces, please read the chapter on [Facilities for solving large puzzles](#), after you have read this chapter.

You can move a single piece by clicking and dragging it with the left mouse button. That will leave the piece selected and highlighted. To move several pieces at once, first select and highlight them, then click and drag just one of the pieces. The rest will follow.

You can select and highlight multiple pieces by holding **Ctrl** and clicking on them, or by dragging a rubberband around them with the left mouse button. You can also use **Ctrl** and left mouse button to increase or decrease the current selection one piece at a time.

To remove selection and highlighting, just click on an empty spot on the puzzle table or on a piece that is not already selected.

When you put one piece near a neighboring piece, both pieces will automatically snap together and become joined (1). After pieces have been snapped together, they cannot be torn apart. Another difference between Palapeli and a real-world jigsaw puzzle is that you cannot combine two pieces that are not true neighbors.

The progress bar below the puzzle table indicates your progress by counting joined pieces (2). Palapeli will automatically save your progress after every move, so you do not have to worry about saving.

You can zoom the puzzle table view in or out with the mouse wheel, the slider at the bottom right or the buttons at the bottom right (3).

You can move the puzzle table view in any direction by clicking and dragging with the right mouse button.

The movement of the pieces is limited by the *puzzle table area*. This area is represented on the puzzle table's background by a light rectangular shade. When you move pieces to the border (4) of the puzzle table area, the area will automatically expand to give you more space for moving your puzzle pieces. Near the shaded borders, the mouse cursor changes into a double-headed arrow, indicating that you can adjust the puzzle table area by clicking there and dragging with the left mouse button.

You can lock the puzzle table area with the small button (5) to the right of the progress bar. The shade (4) around the puzzle table will darken, and pieces will now stop moving at the edges of the puzzle table area. It is still possible to adjust the size of the puzzle table area manually.

## 4.2 The Preview window

The Preview is a small window that floats above or to one side of the puzzle table window. It contains an image of the completed puzzle: the picture that would appear on top of the box if this was a real-world jigsaw puzzle.

The window can be shown or hidden by using the **Preview** toolbar button or the **View** → **Preview** menu item. Its size, position and visible or not visible setting are saved and restored between runs of Palapeli.

Being a window, it can be freely moved around the desktop and resized. Its Close button will hide it and its Maximize button will expand or contract the picture rapidly.

The Preview window has a magnification feature, so it need not take up much space. If you move the mouse over the window, it zooms in quickly to reveal a magnified view of the area under the mouse and the equivalent of a few pieces around it. This is very useful for viewing details of the puzzle and identifying pieces you have found, but it can be tricky to control, especially near the edges of the picture.

## 4.3 Mouse interactions

As described in the previous section, there are plenty of ways to interact with Palapeli's puzzle table using the mouse. You can configure freely which actions are triggered by which mouse buttons. (See [Game Configuration](#) section for more information on how to configure this.) The following list summarizes all possible mouse actions:

### **Change size of puzzle table area by dragging its edges**

By default, this action is assigned to the left mouse button.

### **Move pieces by dragging**

When you click and drag a puzzle piece, this piece will be moved. If multiple pieces have been selected and you click and drag one of these pieces, then all pieces are moved. By default, this action is assigned to the left mouse button.

### **Move viewport by dragging**

This action moves the view of the entire puzzle table in any direction. By default, it is assigned to the right mouse button.

### **Select several pieces by rubberbanding**

When you click on a free area of the puzzle table instead of a puzzle piece, you can drag a rubberband. When you let the mouse button go, all pieces inside the rubberband are selected. All other pieces are deselected. By default, this action is assigned to the left mouse button.

### **Select several pieces by clicking**

When you click on a puzzle piece, it will be selected or, if it was already selected, it will be deselected. It can also be used to adjust a rubberband selection. By default, this action is assigned to the left mouse button and only available when **Ctrl** is pressed.

### **Clear selections and highlighting**

Click on an empty spot in the puzzle table or on a piece that is not already selected.

### **Zoom the puzzle table view in or out**

This action is identical to clicking the buttons either side of the slider (3) on the status bar. It is assigned to the mouse wheel by default.

### **Switch to close-up or distant view**

This action alternates (toggles) between a close-up and distant view, at the position of the mouse pointer. It is intended mainly to provide fast zooming in large puzzles (300 pieces or more). For more detail, see [Fast zooming between close-up and distant view](#). By default, the action is assigned to the middle mouse button.

### **Teleport pieces to or from a holder**

This action helps you collect, sort and move pieces rapidly in large puzzles (300 pieces or more) without dragging and dropping. You can use it in smaller puzzles if you wish. For more detail, see [Using piece-holders](#). By default, the action is assigned to the left mouse button and only available when **Shift** is pressed.

### **Toggle lock state of the puzzle table area**

This action is identical to pressing the button (5) on the status bar. By default, this action is not assigned to any mouse button, but you can enable it from [the configuration dialog](#).

### **Scroll viewport horizontally and Scroll viewport vertically**

By default, this action is not assigned to the mouse wheel, but you can enable it from [the configuration dialog](#).

## **4.4 Toolbar overview**

### **Back to collection**

Go back to the collection to choose another puzzle. Can be used only when you are solving a puzzle.

### **Preview**

Toggle the display of the preview window with the completed puzzle.

## Chapter 5

# Facilities for solving large puzzles

### 5.1 General principles

Palapeli can handle large puzzles from 300 to 10,000 pieces, but you need some special facilities to help you work with them on a small screen.

You can create a large puzzle in exactly the same way as a smaller puzzle. See the chapter on [Creating new puzzles](#), but there are some things you need to think about before you begin. For details see [Creating large puzzles - special concerns](#).

The Preview window is very useful in large puzzles: see the section about it for a [detailed description](#).

Managing space and moving around are your next concerns. When you zoom out to view the whole puzzle table, it becomes hard to see individual pieces. If you zoom in and find a piece you are looking for, it is unlikely that the place where it goes will be visible in the view. See the [Managing space and moving around](#) section for some solutions to these problems and others.

Finally, you need to collect pieces and convey them to your solution area in some more efficient way than repetitive dragging and dropping over large distances. This is where piece-holders come in.

When you start a large puzzle, you are given a holder (a small floating window) called 'Hand' into which you can put pieces when and wherever you see them. Then you can drop them near your solution and work out where each piece has to go. This is like collecting pieces in one hand as you scan a large real-world jigsaw puzzle.

You may need some systematic way to collect and sort pieces by common attributes (e.g. edges, sky, skyline, etc.) and so you can use as many holders as you like and give them names. Holders are saved continually, along with the puzzle table, which means you can use them to build up parts of the solution and store them or even to store pieces that you wish to put into a 'too hard basket' until later. For details on how to use holders see the [Using piece-holders](#) section.

Finally, the [Mouse interactions](#) section lists the two special mouse actions that make working with large puzzles quicker and easier: teleporting pieces and zooming to close-up or distant view.

### 5.2 Creating large puzzles - special concerns

Before you create a large puzzle, you should make sure that the image in your source contains enough detail (i.e. enough megapixels). You can use a file utility or photo viewer/editor to find out how many pixels wide and high your picture is when not compressed by JPEG or other image format. As a rough rule of thumb, allow one megapixel per 1,000 pieces. That will give each piece

about 1,000 pixels or more than 30 by 30 pixels, making the pieces reasonably sharp at the edges and clear to see when you zoom in. You can work with fewer megapixels, but it may be hard to distinguish and recognize pieces during play.

When you create or restart a large puzzle, it may be best to avoid using the bevel and shadowing features of Palapeli (see the [General settings](#) section), because they make loading slower and highlighting harder to see when the pieces in the view are very small. More prominent highlighting appears when shadowing is not used.

## 5.3 Managing space and moving around

### 5.3.1 Allocating space on the puzzle table

When you create or restart a puzzle, the pieces are shuffled and placed randomly into grid locations on the puzzle table. Two settings affect the space required, see [Game Configuration](#) for a list of settings provided via **Settings** → **Configure Palapeli...** or, on Apple OS X, **Palapeli** → **Preferences...**

The spacing of pieces in puzzle grids can be set from 1.0 to 1.5 times the height and width of the highest and widest pieces. Smaller settings pack the pieces into the view better, but larger ones allow more space for dragging, dropping and rubberbanding. The default is 1.3, but 1.1 is very workable in large puzzles. The setting applies to puzzles of all sizes, and also affects grids used with piece-holders (see [Using piece-holders](#)) or when re-arranging pieces automatically on the puzzle table, using **Move** → **Rearrange pieces (R)**.

The other setting provides space on the puzzle table of exactly the right size for building your solution. The default is for it to appear in the center, with the pieces distributed evenly around the outside. On average, this should put the pieces closest to where they have to go eventually. You can also choose to use any of the four corners or have no space (option None), in which case you have to clear space manually, perhaps by expanding the puzzle table area (see [Basic moves](#)). The solution space setting affects puzzles down to 20 pieces, but with fewer than 20 pieces solution spaces are pointless.

As the puzzle solution progresses, pieces move into the solution area and leave spaces elsewhere. It may be helpful to pack the remaining pieces closer together. If so, select some pieces using rubberbanding or **Ctrl** and left mouse button, then use **Move** → **Rearrange pieces (R)** or simply the shortcut key (default **R**). The pieces are packed into a grid and remain selected, so that they can be easily moved to a better position, if required. This is also a way to gather together pieces with some common attribute, but using piece-holders is more powerful.

### 5.3.2 Fast zooming between close-up and distant view

When a puzzle is loaded, Palapeli calculates distant and close-up views and displays the distant view, which shows the entire puzzle table area. The close-up view shows pieces at a convenient viewing size for your eyes and your screen and desktop. Use the middle mouse button to switch quickly between the two views, at a location where the mouse is pointing. Then you can home in quickly on any piece in the puzzle table and see what shape it is and what part of the picture it contains.

You can adjust the scale of either view by zooming manually and your setting will be remembered next time you switch the view by using the middle mouse button. Puzzles of all sizes have the fast zooming feature, but in puzzles with less than 100 pieces the two views are almost the same as each other. In other words, the pieces are easy to see when you view the whole puzzle table.



### 5.3.3 Moving around in a large puzzle

The hard way to move pieces in a large puzzle is to select them and then alternately drag the pieces and the puzzle table (left mouse button and right mouse button) until you get to your destination. A much easier way to do the same thing is to select the pieces, zoom to distant view (middle mouse button, see above), drag the pieces to the destination in one move (left mouse button) and then zoom to close-up view (middle mouse button). This is also a good way to retrieve a single stray piece, but dragging that tiny piece across the puzzle table, without losing the selection, can be tricky if there are thousands of pieces.

Another way to navigate and search the puzzle table systematically is to zoom in on the top left corner (middle mouse button), then use the empty spaces in the scroll bars to step through the table horizontally or vertically, one fixed-size 'page' at a time. This technique is very effective when you are using piece-holders to collect pieces you are looking for. If you keep the close-up scale fixed and always start at the same place, you will always get 'pages' of fixed size and contents.

### 5.3.4 Visibility of pieces in large puzzles

In large jigsaw puzzles on a small screen it can be hard to see what you are doing. For example, with a 10,000 piece puzzle on a 1440 by 900 screen, the pieces in the distant view of the puzzle table are about 7 pixels across. At this scale, it is hard to see picture, color, piece-shape or even highlighting.

Palapeli has always had a choice of backgrounds and background colors and that helps visibility. Added to these is a more prominent highlighting scheme, which appears if you do not choose shadowing, and a setting to choose the color of the highlight, to contrast with the background and most pieces. Also these settings are now saved and restored with each puzzle. So each puzzle can have the background and highlighting that best suits its overall picture. It is worth experimenting with settings when you create a large puzzle, but you may need to reload or restart the puzzle before all changes can take effect.

## 5.4 Using piece-holders

### 5.4.1 What are piece-holders?

Piece-holders are perhaps the most useful feature of Palapeli for helping solve large puzzles. They are small, floating windows into which you can sort groups of pieces, such as 'edges', 'sky', 'skyline' or 'white house on left'. Initially they appear at a minimum size which is just large enough to show four pieces at close-up scale, so they are quite easy to fit in next to the main puzzle table window.

Being windows, holders can be freely moved around the desktop and resized. The Close button will delete the holder, but only if it contains no pieces. The Maximize button will expand or contract the holder rapidly. The holder can contain any number of pieces (maybe hundreds). A Maximize action can be useful when reviewing the contents or constructing a sub-assembly inside the holder.

You can have as many holders as you like. There is usually one which is active - outlined in blue. It is the target for actions such as transferring pieces or deleting a holder.

### 5.4.2 Creating and deleting holders

When you start a large puzzle, a holder called 'Hand' is created automatically. This may be the only holder you need with puzzles of 300 to 750 pieces, but you can have as many holders as you like, even with puzzles of less than 300 pieces.

To create or delete a holder, use **Move** → **Create piece holder..** (**C**) or **Move** → **Delete piece holder** (**D**), or simply the shortcut keys **C** and **D**, or the Close button to delete. When you create a holder, you are asked to give it a name, but that is not essential. Usually the holder is at close-up scale and you can easily see what kind of piece is in it.

When you delete a holder, it must be active (outlined in blue) and empty of pieces. If the holder to be deleted is not active, click on it. After deletion, there is no active holder, so click on one of those that are left.

### 5.4.3 Transferring pieces into and out of holders

Transferring pieces by dragging and dropping is not possible with holders, nor is it needed. Instead, you can transfer pieces instantly by ‘teleporting’, as in ‘Star Trek’. Teleporting works by using the **Shift** and left mouse button together.

To transfer pieces to a holder, make sure your target holder is active (outlined in blue), then select some pieces on the puzzle table and click with **Shift** and left mouse button. Or you can just click on one piece at a time with **Shift** and left mouse button. The transferred pieces vanish from the puzzle table and reappear, highlighted, in the holder. As they arrive, they are automatically packed into a grid and the last piece transferred is centered in the view.

To transfer pieces out of a holder, select a piece or pieces inside the holder, then return to the puzzle table and click on an empty spot where you would like the piece(s) to appear, using **Shift** and left mouse button. Avoid clicking on a piece that is already on the puzzle table: it will send the piece to the holder - not what you want. If you accidentally do this with a large joined-up piece (i.e. part of your solution), there is a warning message and an opportunity to cancel.

Pieces stay highlighted after teleporting. That allows you to reverse the action quickly if you accidentally transfer the wrong pieces or use the wrong holder. Also, on the puzzle table, you can easily adjust the position of a piece or pieces that have just arrived or move a piece into the solution.

Teleporting also works between holders. Start as if you are going to transfer pieces to the puzzle table, but then use **Shift** and left mouse button in an empty spot in another holder. To reverse the process, go back to the original holder and click with **Shift** and left mouse button again.

### 5.4.4 Sorting pieces

To sort pieces into holders efficiently as you search through a large puzzle, use the technique for stepping through the puzzle a ‘page’ at a time, [as described earlier](#), combined with holders and teleporting to collect pieces as you go. When you have scanned the whole puzzle table, zoom to a close-up of your solution area and place the pieces you have collected. Or you can pre-assemble pieces in holders.

### 5.4.5 Other holder actions

Piece-holders support all the functions of the puzzle table (see [Basic moves](#)), except that you can only zoom by using the scroll-wheel or the middle mouse button.

This means that you can use a holder as an extra puzzle table, if you wish. You can drag and drop, join pieces together, move the boundaries of the area, etc. You can also teleport assembled pieces of any size into or out of a holder, but beware of overlaps or small pieces being hidden.

Finally, you can use **Move** → **Select all in holder** (**A**), followed by **Move** → **Rearrange pieces** (**R**) or **Shift** and left mouse button, to re-pack all the pieces in the holder or empty all the pieces out onto the puzzle table. Or just use the shortcut keys **A** or **R** on the currently selected holder.

## Chapter 6

# Interface Overview

The following are Palapeli's menu actions, some of which are also available as toolbar buttons and shortcut keys.

**Game → Create new puzzle... (Ctrl+N)**

Opens a dialog which allows you to create a puzzle from an image on your disk. See [the corresponding section](#) for details and also [special concerns](#), if you are going to create a puzzle with 300 or more pieces.

**Game → Import from file...**

When you have received a Palapeli puzzle file (which can usually be recognized by the file extension \*.puzzle), you can use this action to import it into your local collection. Puzzle files can also be played by simply clicking on them in the file manager of your choice, but after the import, the puzzle will appear in your local collection, and you can safely delete the downloaded puzzle file.

**Game → Export to file...**

This will export the currently selected puzzles to files, in order to enable you to give them to your friends, publish them on the web, or make backup copies of your collection.

**Game → Delete puzzle**

Any puzzles that you have selected in the puzzle list, will be permanently deleted from your collection.

<p><b>WARNING</b> This action cannot be undone.</p>
---

**Game → Restart puzzle**

Re-shuffle all the pieces and discard the saved progress for the current puzzle.

**Move → Create piece holder... (C)**

Create a temporary holder for storing or sorting pieces. See [Using piece-holders](#) for details of how to use a holder.

**Move → Delete piece holder (D)**

Delete a selected temporary holder when it is empty.

**Move → Select all in holder (A)**

Select all pieces in the currently selected piece-holder (outlined in blue).

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### **Move → Rearrange pieces (R)**

Rearrange selected pieces in any holder or the puzzle table by packing them into a grid.

### **View → Back to collection**

Go back to the collection to choose another puzzle. Can be used only when you are solving a puzzle.

### **View → Preview**

Toggle the display of the completed puzzle preview image. Hover it with the mouse pointer to zoom in the image.

### **View → Zoom In (Ctrl++)**

Increase the scale.

### **View → Zoom Out (Ctrl+-)**

Decrease the scale.

### **Settings → Enable all messages**

Allows you to enable all messages disabled by checking the **Do not show this message again** item in the Palapeli confirmation dialogs.

### **Settings → Show statusbar of puzzle table**

Toggle the display of the progress bar and buttons below the puzzle table. This action will change nothing in the puzzle collection.

### **Settings → Configure Palapeli...**

Open a game configuration dialog. See [Game Configuration](#) section for more details.

Additionally Palapeli has the common KDE **Settings** and **Help** menu items, for more information read the sections about the [Settings Menu](#) and [Help Menu](#) of the KDE Fundamentals.

## Chapter 7

# Game Configuration

To open the configuration dialog, use the menubar option: **Settings** → **Configure Palapeli...**

### 7.1 General settings

#### **Puzzle table**

Lets you choose some parameters of the puzzle table.

#### **Background**

Lets you choose another background texture for the puzzle table. If you choose a single color instead of a texture, the button besides the selection box can be used to define the color.

#### **Color for highlighting selected pieces**

Lets you choose the highlighting color of pieces when they are selected. Click on the button to the right of the label to open the [Color Selector](#) window.

#### **Space for solution**

Lets you choose where to reserve some space on the puzzle table for building the solution. No space is provided if you select option None or the puzzle has less than 20 pieces. Changes will take effect when a puzzle is created or re-started.

#### **Spacing of pieces in puzzle grids (1.0-1.5)**

Lets you choose the spacing in puzzle grids. Changes in the overall puzzle spacing will take effect only when a puzzle is created or re-started.

#### **Piece appearance**

Controls the appearance of pieces on the puzzle table. If Palapeli is running slowly or puzzles take a long time to open, you can disable the graphical effects in this category and speed up everything. If you choose shadowing, highlighting is implemented by changing the color of the shadow.

#### **Snapping precision**

Lets you choose how closely neighboring pieces must be positioned before they snap together. If you move the slider to the right, pieces will snap together even if they are not so close. This makes the game a bit easier to play.

## 7.2 Mouse interaction

This page of the configuration dialog allows you to change the assignments of mouse buttons and modifier keys to the actions described in [Playing on the puzzle table, Mouse interactions](#). Care should be taken to avoid ambiguous assignments. Three of the default assignments can go to the left mouse button because the pointer is over different areas when you use them, but the other assignments must be distinct.

The interactions are divided into those that can be assigned to mouse buttons (e.g. Move viewport by dragging), and those that can be assigned to the mouse wheel (e.g. Scroll viewport horizontally).

### 7.2.1 Mouse buttons tab

To the right of the name of each interaction is a button with a picture of a computer mouse which shows the currently assigned action. You can configure the interaction by clicking on that button with the left mouse button and then with the mouse button which you wish to assign to this interaction. If you hold modifier keys while clicking for the second time, the puzzle table will allow this interaction only while these modifiers are being held.

#### TIP

Instead of clicking, you can also press **Space** to assign the special **No-Button** to this interaction. This is only allowed if modifier keys are being held. The **No-Button** means that the modifier keys take the role of the mouse button: The interaction starts when the modifier keys are pressed, and stops when one of the modifier keys is released.

### 7.2.2 Mouse wheel tab

This tab works similarly to the previous one. When the button on the right asks for input, you have to turn the mouse wheel instead of clicking a mouse button. Holding modifier keys is allowed, too, with the same consequences as in the previous case.

#### TIP

If your mouse has a bidirectional mouse wheel (as most commonly found on notebook touchpads), you can take advantage of this: The button will recognize whether you turned the mouse wheel horizontally or vertically.

## Chapter 8

# Credits and License

Palapeli aims to bring the unagitated fun and challenge of jigsaw puzzles to your desktop.

The idea was first developed by Bernhard Schiffner, together with Stefan Majewsky, who was the leading developer of Palapeli.

The Palapeli Slicer Collection was contributed by Johannes Löhnert.

The large-puzzle facilities were contributed by Ian Wadham.

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## Appendix A

# Installation

Palapeli is part of the KDE project <http://www.kde.org/> .

Palapeli can be found on the [download site](#) of the KDE project.

### A.1 Compilation and Installation

For information on how to compile and install KDE applications visit the [KDE Techbase](#)

Since KDE uses **cmake** you should have no trouble compiling it. Should you run into problems please report them to the KDE mailing lists.