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Koliber — User manual

A zooming presentation editor: one large canvas instead of a stack of pages, and a path of camera steps the show flies along. For MorphOS, Windows and Linux.

1. What Koliber is

In Koliber you do not make slides one after another. You place text, pictures, shapes, video clips and 3D models anywhere on one canvas as large as you need, and then record **steps**: views of that canvas. A presentation is the camera flying from step to step, zooming in on a detail, pulling back to show how it fits, turning as it goes. If you prefer ordinary slides, Koliber does those too.

Koliber is Polish for hummingbird: small, fast, and always hovering over the next thing to look at.

The editor with the presentation from the tutorial. The title is selected; the inspector on the right shows its settings.

The editor is also the player: the same program shows the presentation full screen, and exports it as a web page, a PDF, a PowerPoint deck, pictures or a video. Files are plain text, so a presentation made on MorphOS opens unchanged on Windows or Linux, and the other way round.

2. Quick start

1. **Start a presentation. Project** → **New...** opens the wizard. Pick **Prezi** for a canvas, or **Slides** for a deck, choose a background and press **Create**.
2. **Put something on the canvas.** The toolbar's **T** adds a text; type straight away, `Esc` when you are done. Add a picture with the picture button.
3. **Frame a part of the canvas.** Add a **Frame** around what one view should show.
4. **Record steps.** Select the frame and press **+** (Add step). Each step appears in the Slides list on the left. Repeat for every frame, in the order of the show.
5. **Present.** `F5` starts the show full screen. `Space` goes on, `Esc` brings up the controls.
6. **Save.** `Ctrl`+`S` writes a `.koliber` file.

> The tutorial builds a complete presentation this way, with pictures of every stage and a video of the whole session.

3. Installing

Windows

Unpack `Koliber-win64.zip` anywhere and run `Koliber.exe`. Nothing is installed and nothing else is needed: the program uses only the C runtime that is part of Windows 10 and 11. The folder holds the program, its libraries (GLUI, SDL2 and the FFmpeg libraries for video), a font and this manual.

Linux

Build from source with `make` (see For developers), or unpack the tarball and start `Koliber`. It needs SDL2 and OpenGL, which every desktop has.

MorphOS

Unpack the archive to a drawer of your choice and start `Koliber`. The MorphOS version has a native MUI interface; see Koliber on MorphOS.

4. The window

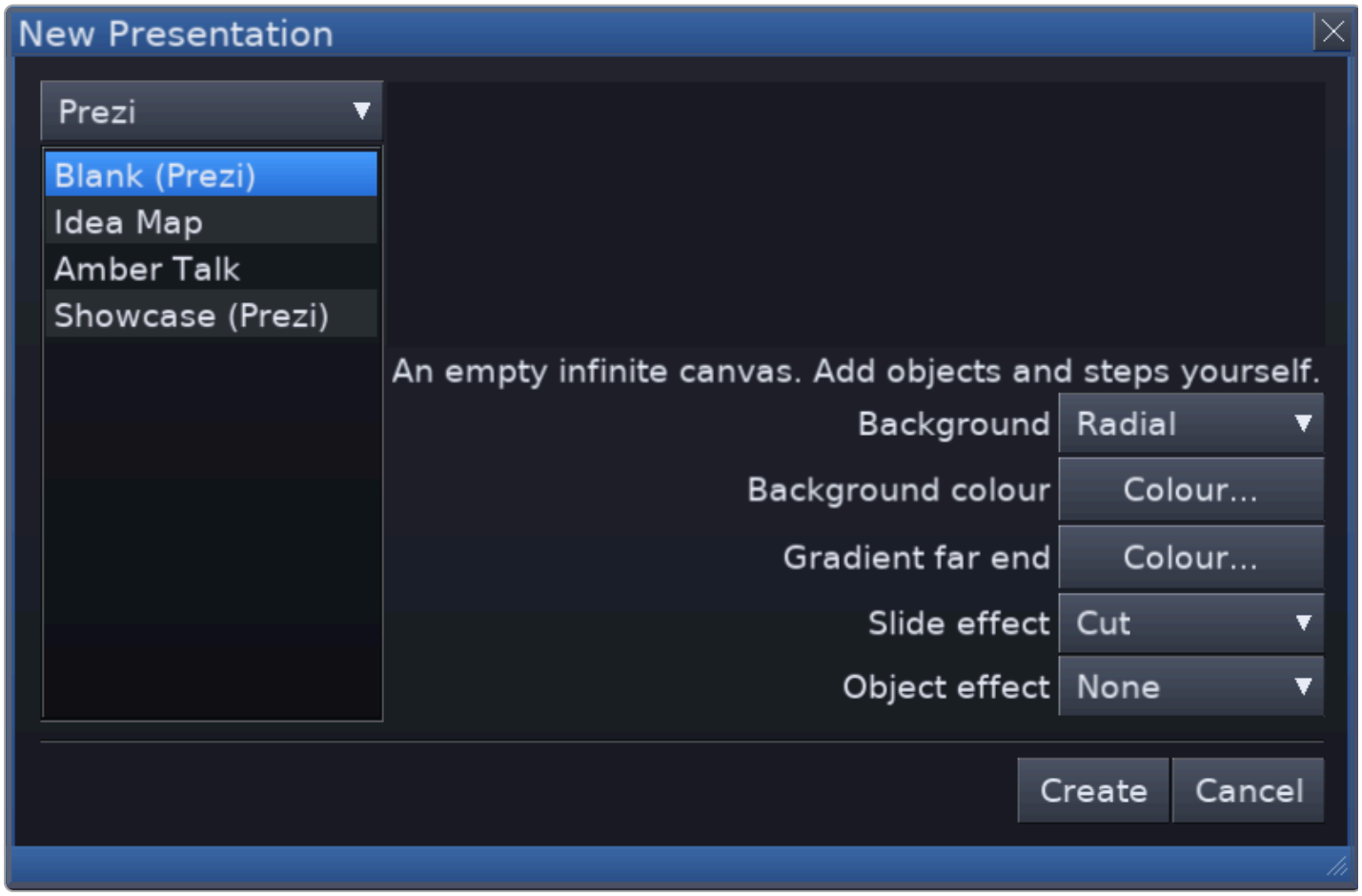
Area	What it is for
Menu bar	Project, Edit, Insert, Object, Steps, Prefs, Macros, Help
Toolbar	the most used commands, one click each
Slides (left)	one picture per step, in show order. Click one to go there. Below the list: the settings of the current step and its notes
Canvas (centre)	the presentation itself; you edit it where you see it
Inspector (right)	everything about the selected object. With nothing selected it says so
Controls (bottom)	first, previous, play, stop, next and last step, and how far the show has got

The toolbar, left to right: New, Save, Open · Text, Rectangle, Frame, Picture, Video, Edit text · Undo, Redo, Delete · Add step, Overview, Present, Play (present with autoplay) · Quit.

Hover over any button for a short description. The panels keep their sizes and the window its place when you choose **Prefs** → **Snapshot**; **Unsnapshot** forgets them.

5. A new presentation

Project → **New...** (or the first toolbar button) opens the wizard. If the open presentation has unsaved changes, Koliber asks first.



The New Presentation wizard.

- **Prezi or Slides.** A *Prezi* presentation is one canvas the camera flies over. A *Slides* presentation is a deck: each step is a page, and the show cuts or fades from one to the next instead of flying.
- **A template.** *Blank* starts empty. The others (*Idea Map*, *Amber Talk*, *Showcase* and more for slides) start with a few frames, texts and steps to change.
- **Background:** one colour, or a gradient (vertical, horizontal or radial) between two colours.
- **Slide effect:** the transition used between steps, unless a step sets its own.
- **Object effect:** the entrance every new object gets (Fade, Pop, Rise, Drop, Slide left, Slide right, or None). Each object can change it later.

All of these can be changed afterwards: the background and the default transition in Settings, the mode in **Steps** → **Mode: Prezi / Slides**.

6. Working on the canvas

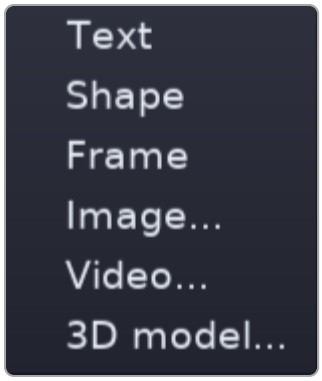
Action	How
Zoom	mouse wheel, or `+` / `−`
Pan	drag an empty part of the canvas
Select	click an object; `Ctrl` + `A` selects everything
Move	drag the object, or nudge it with the arrow keys (one grid step when snapping is on)
Resize	drag a corner handle
Rotate	drag the round handle above the object
Delete	`Del` or `Backspace`, or the Delete button
See everything	the Overview button (the eye), or **Steps** → **Overview**

Every change can be undone: `Ctrl` + `Z` undoes, `Ctrl` + `Y` redoes. A click that only selects something is not a change, so it neither takes an undo step nor marks the presentation as unsaved.

Snap to grid (in Settings) makes moving and nudging land on a grid of the size you choose.

7. Objects

The **Insert** menu and the toolbar add objects. A new object lands in the middle of the view and is selected. Pictures, clips and models can also be dropped on the canvas from the file manager; they land where you drop them.



The Insert menu.

Text

Any number of lines in a TrueType font, with bold, italic and underline. See Text.

Shape

A rectangle, with rounded corners if you like (a square with Corner at half its side is a circle), filled with a colour, a gradient or a picture, with a border. Ellipses and lines come in from PowerPoint decks and scripts.

Frame

A region of the canvas a step can fly to. It can also clip the objects inside it (**Object** → **Clip to Frame**).

Picture

PNG, JPEG, GIF, BMP and more. A picture comes in at its own size, at most 400 units across.

Video

MP4, MOV, MKV, AVI, WebM and more: the clip plays during the show and stands on its first frame while you edit.

3D model

A COLLADA (`.dae`) mesh, shaded as a solid and turned to any angle. See 3D models.

Objects lie on top of each other in the order they were added. **Edit** → **Bring to Front** and **Send to Back** change that. **Edit** → **Duplicate** (`Ctrl` + `D`) copies the selection; cut, copy and paste work as usual, and pasting text from another program into a text object inserts it at the caret.

8. Text

Select a text and press `Enter` (or `F2`, or **Object** → **Edit Text**). A caret appears in the text on the canvas, and you type where you see it. A new text starts in this mode at once.

Typing on the canvas: the caret is after "Hummi".

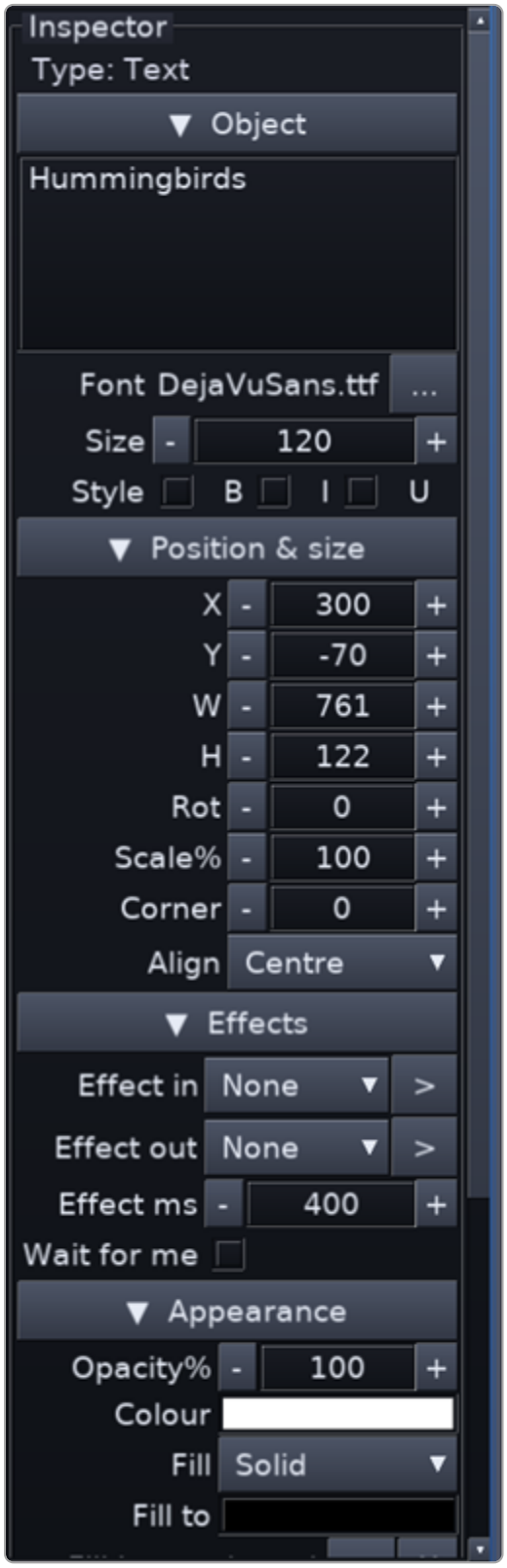
Key	Does
Arrows	move the caret by a character or a line
`Home` / `End`	start / end of the line
`Ctrl`+`Home` / `Ctrl`+`End`	start / end of the text
`Backspace` / `Del`	remove the character before / after the caret
`Enter`	a new line
`Esc`	finish

A click inside the text places the caret; a click anywhere else finishes. Everything typed in one go is one undo step, and opening a text without changing it is no step at all.

The same words can be edited in the field at the top of the inspector. Below it: **Font** (the **…** button picks a TrueType file), **Size** in pixels, and **Style**: bold, italic, underline. **Align** (left, centre, right) lines up the lines of a text with several.

> A text's box is always exactly the size of its words, so the selection outline never cuts through the letters. That is why W and H cannot be typed for a text. To make it larger, change its Size, or drag a corner, which scales it.

9. The inspector



The inspector for a text.

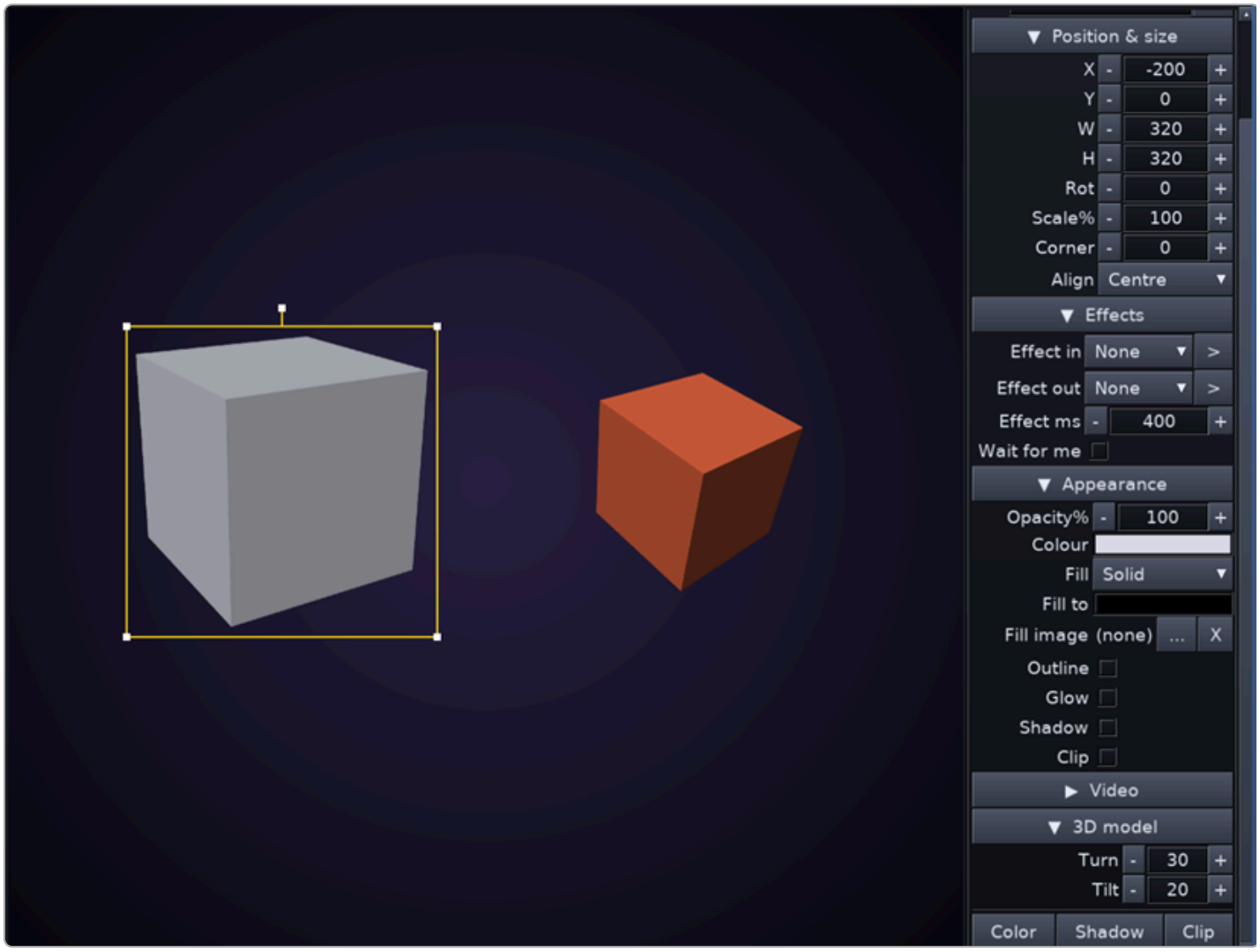
The inspector shows the selected object in sections. Click a section's header to fold it away or open it again.

- **Object**: what the object holds. The words, font, size and style of a text; the file of a picture, a clip or a model.
- **Position & size**: X and Y (the centre), W and H, rotation, scale, the rounding of a rectangle's corners, and the alignment of a text.
- **Effects**: the object's entrance and exit, how long they take, and *Wait for me* (see Transitions and entrances).
- **Appearance**: opacity, colour, the fill (solid, gradient, or a picture), outline, glow, drop shadow, and *Clip* to the frame it is in.
- **Video**: when a clip starts, its speed, whether it loops, and how often a frame is decoded.
- **3D model**: Turn and Tilt.

Numbers can be typed, or changed with **-** and **+**. Every change is undoable.

10. 3D models

Insert → **3D model…**, or dropping a `.dae` file on the canvas, places a COLLADA mesh, lit and shaded as a solid. Its colour is the fill, set with *Colour* in the Appearance section as for a shape. The *3D model* section turns it: **Turn** spins it about the vertical axis, **Tilt** tips it towards you or away, both in degrees.



Two models; the grey one is selected, turned 30° and tilted 20°.

The mesh fills its box whatever units it was modelled in, and keeps the box's proportions. A model is drawn as a picture of itself, so everything that shows pictures shows it the same way: the canvas under either renderer, the show, and the PNG, PDF, PowerPoint, HTML and video exports. It is a still: it turns when you change its angles, not during the show. Textures and materials in the file are not used, only the shape.

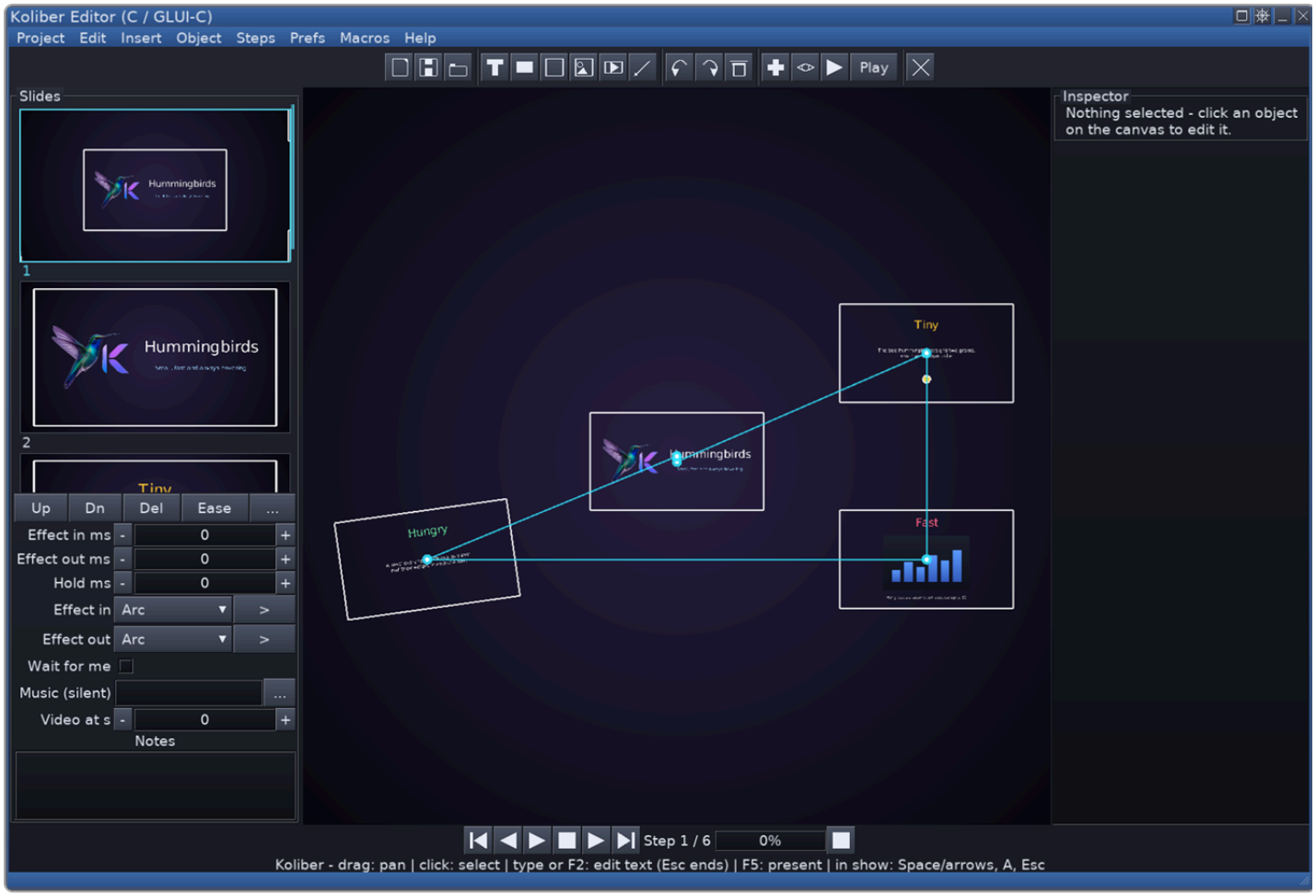
11. Steps and the path

A step remembers a view of the canvas: where the camera is, how far it is zoomed in and how it is turned. The show visits the steps in order.

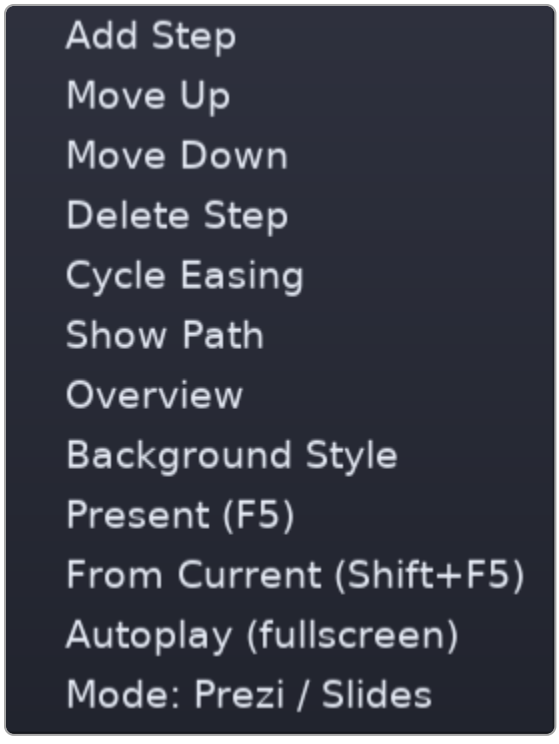
The Slides list, and below it the current step's settings.

- **Add step** (**+** on the toolbar). With a frame selected, the step flies to that frame and follows it when you move it later. Otherwise it keeps the current view.
- **Up**, **Dn** and **Del** under the list reorder and delete steps. The **...** button opens the whole Steps menu at the pointer.
- **Ease** changes how the camera accelerates into the step: smooth, linear, in, out, in-and-out, or with a slight overshoot.

Each step has its own settings below the list: how long the transition into it and out of it takes (*Effect in ms*, *Effect out ms*), how long autoplay stays on it (*Hold ms*), the transition effects, *Wait for me*, a music file, the second a video starts at, and the speaker notes. A value of 0 uses the presentation's default.



*The path: **Steps** → **Show Path** draws it across the canvas, one node per step.*



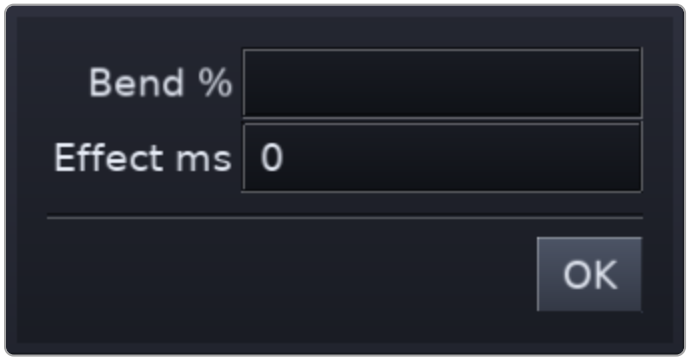
The Steps menu.

Smooth camera path (in Settings) flies a curve through the steps instead of a straight line from each to the next, so the camera arrives already heading for the next step. Its *tension*, *continuity* and *bias* shape the curve: more tension straightens it, negative continuity makes a corner at each step, bias leans the bend before or after the step. The path on the canvas, the show, the video and the HTML export all follow the same curve.

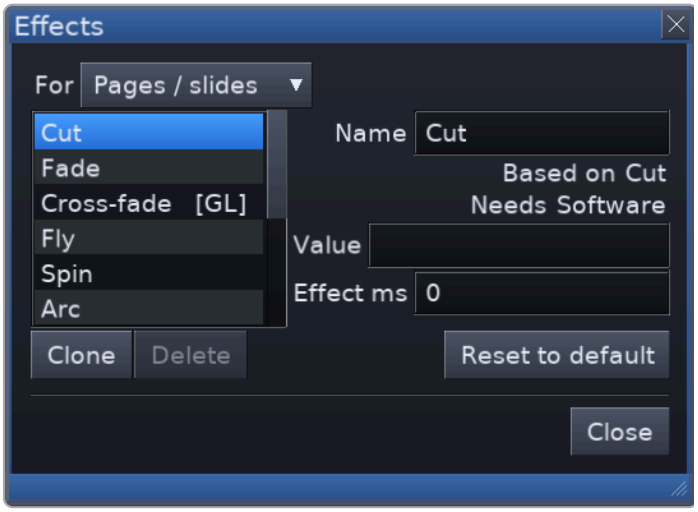
12. Transitions and entrances

Between steps

Each step has an *Effect in* (arriving) and an *Effect out* (leaving); the presentation has a default for both. The camera effects fly: **Fly** straight, **Arc** on a curve, **Spin** while turning, **Swoop** out and back in, **Tumble** with a wobble, **Zoom in**. The page effects work like slides: **Cut**, **Fade**, **Cross-fade**, **Push**, **Slide up** and **Slide down**. Effects that need the graphics card (marked [GL]) are offered only when the OpenGL renderer is on.



*The **>** button beside an effect opens its own setting, here how far Arc bends.*



Project → ***Effects...****: every effect, its value and time. Clone one to make a variant with your own settings.*

Your own effects

New effect in the Effects window makes an effect of your own, for pages or for objects: where it starts (across, down, its size, its turn), where it goes midway, how dark the screen gets (for an object: how much of it is a fade) and the curve it moves on. It joins the effect lists, is saved in the presentation, and plays the same on Windows, Linux and MorphOS, in the browser, in an exported page and in a video. PowerPoint and older versions of Koliber play a Fade in its place.

Objects appearing

Each object can have an *Effect in* (how it appears when the show reaches its step) and an *Effect out*: Fade, Pop, Rise, Drop, Slide from the left or right. *Effect ms* is how long it takes.

Wait for me on an object holds the show at that object until you press `Space` or click, so a list can arrive one line at a time. Objects arrive in the order they lie on the canvas. On a step, *Wait for me* stops autoplay there until you go on.

13. Presenting

A show in progress, flying from the overview to the title.

Key	Does
F5	present from the first step, full screen
Shift + F5	present from the current step
Space, Enter, →, ↓, a click	next (an object waiting, or the next step)
←, ↑, Backspace	previous step
Home / End	first / last step
A	autoplay on / off
F11	full screen on / off
Esc	in a window: stop. Full screen: show the controls, which carry Exit

The mouse wheel also steps forward and back. The **Play** button starts a show with autoplay: each step stays for its hold time and the show moves on by itself. The controls at the bottom of the editor work during a show too.

Show at in Settings chooses the screen resolution a full-screen show runs at; *Native* leaves the display as it is.

14. Speaker notes and music

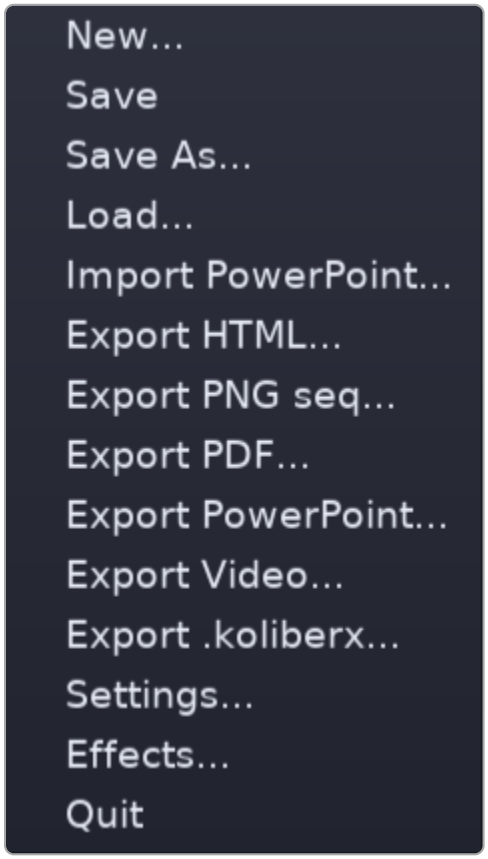
Notes, at the bottom of a step's settings, are what you mean to say at that step. They are never shown to the audience. They are saved with the presentation, go to PowerPoint as the slide's notes (and come back from a deck that has them), and the HTML player shows them in a corner when you press N.

Music: a sound file for the whole show (Settings → Sound, with its volume), or one per step, which starts when the show reaches that step. MP3, OGG, WAV, FLAC and the other formats FFmpeg reads are accepted. The video export puts the soundtrack into the film.

15. Files

Format	What it is
`.koliber`	the presentation, a text file. Pictures, clips, models and fonts are referenced by path, relative to the file when they sit beside it, so a folder can be moved or copied whole.
`.koliberx`	a packed presentation with every file it uses inside - pictures, fills, clips, 3D models, fonts and the music: one file to hand over or to show on another computer. Opening one unpacks its files into a temporary folder, and **Save** keeps it a package. The web version opens and writes the same packages.

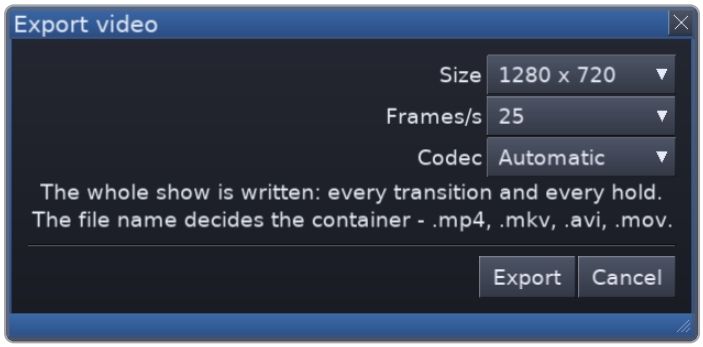
Project → **Save** (`Ctrl` + `S`), **Save As...** and **Load...** (`Ctrl` + `O`) work with both. If saving fails, Koliber says so. **Autosave** (Settings → Editing) saves a presentation that already has a file every few minutes.



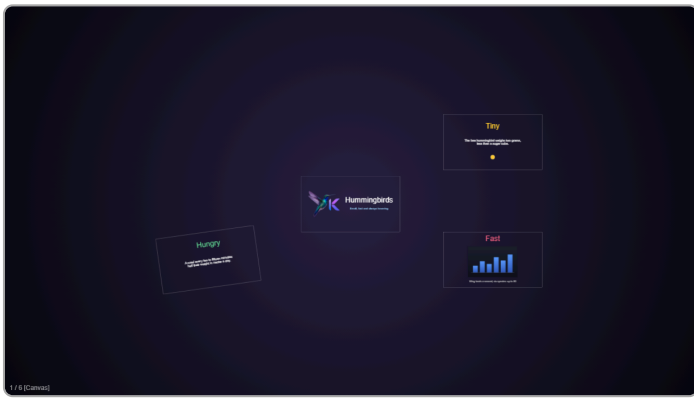
The Project menu: files, the importer, the exports, Settings and Effects.

16. Exporting

Export	Result
HTML	one web page with the whole show inside (small pictures embedded, large ones, clips and fonts in an `assets` folder beside it). It flies like the program does, with shadows, glow, outlines and clipping, and plays in any browser.
PNG sequence	one picture per step
PDF	one page per step. Shapes are drawn as vector paths and text stays text, sharp at any zoom, selectable and searchable, in its embedded font
PowerPoint	a `.pptx` deck, one slide per step. See PowerPoint
Video	a film of the whole show: every transition and every hold, with the soundtrack
.koliberx	the packed presentation



Export video: the size, the frame rate and the codec. The file name chooses the container.



The HTML export in a browser.

For video, *Automatic* chooses H.264 when the FFmpeg libraries have an H.264 encoder (the Windows package does), which every browser and phone plays; otherwise MPEG-4. A codec the libraries lack is replaced by another one of the same kind, and the result says which was used.

The HTML player's keys: `→` / `Space` next, `←` previous, `Home` / `End`, `P` play / pause, `F` full screen, `N` notes, `M` canvas / slides.

17. PowerPoint

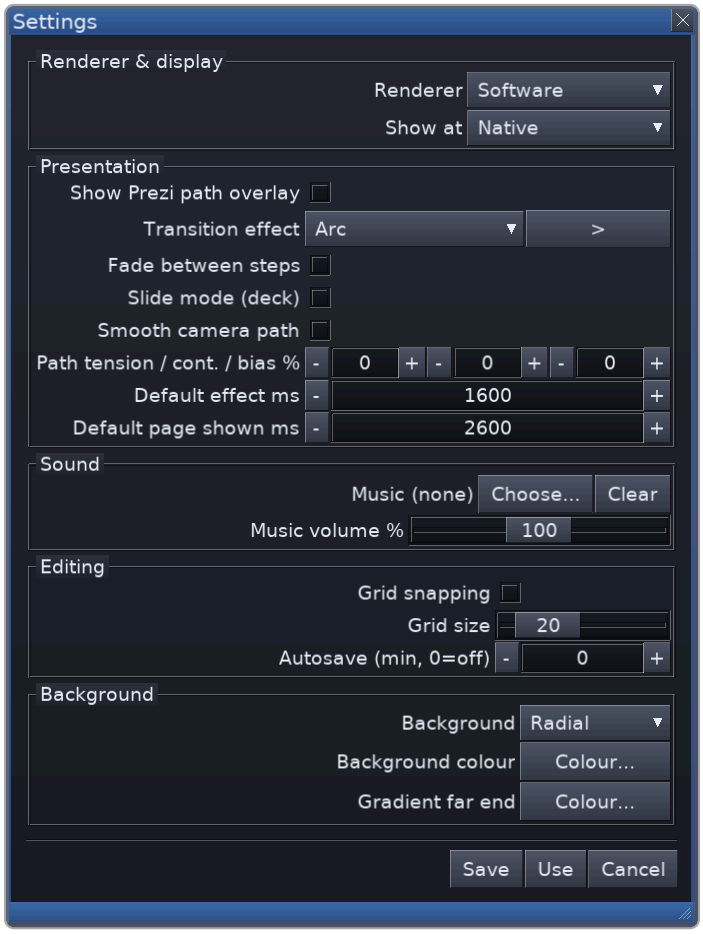
Project → Import PowerPoint… reads a `.pptx` deck. Each slide becomes a frame on the canvas with a step that flies to it: texts with their fonts, sizes, colours and styles, pictures, shapes and their fills, videos, the background, transitions, object animations and speaker notes.

Export PowerPoint… writes each step as a slide: the background, texts as real text boxes, pictures, shapes, clips that play on a click, 3D models as pictures, entrances as animations, transitions, and the notes.

A step of the tutorial presentation, exported and opened in PowerPoint.

What does not survive the trip either way: a camera that flies (PowerPoint has slides, not a canvas), gradients with more than two colours, and fonts the other computer does not have.

18. Settings



Project → Settings...

- **Renderer**: *Software* works with every graphics driver. *OpenGL* draws the canvas on the graphics card and offers the effects marked [GL]. On MorphOS (TinyGL) and macOS OpenGL needs the program started with `--renderer gl`.
- **Show at**: the resolution of a full-screen show.
- **Presentation**: the path on the canvas, the default transition, fading between steps, slide mode, the smooth camera path, and the default effect and hold times. Changing a default retimes every step left at 0.
- **Sound**: the music for the whole show and its volume.
- **Editing**: snapping, the grid size, autosave, and the **Language** of the menus and windows - English, Polski, Deutsch, Español, Français, Italiano, Українська or 中文. *Automatic* follows the system; a change shows the next time Koliber starts. On MorphOS the language is the one set in the Locale preferences.
- **Background**: solid or a gradient, and its two colours.

Use applies the settings, **Save** also remembers them for next time, **Cancel** (or `Esc`) leaves everything as it was.

19. Keyboard shortcuts

Key	Does
`Ctrl` + `N` / `Ctrl` + `O` / `Ctrl` + `S`	new / open / save
`Ctrl` + `Z`	undo
`Ctrl` + `Y`, `Ctrl` + `Shift` + `Z`	redo
`Ctrl` + `X` / `C` / `V`	cut / copy / paste
`Ctrl` + `D`	duplicate
`Ctrl` + `A`	select all
`Enter`, `F2`	edit the selected text
`Del`, `Backspace`	delete the selection
Arrows	nudge the selection
`+` / `−`	zoom in / out
`F5` / `Shift` + `F5`	present from the start / from here

20. Command line

```
Koliber [file.koliber] [options]
  -p  --play              start the show at once
  -f  --fullscreen         ... and fill the screen (implies --play)
  -w  --window            windowed, with the controls below it
      --renderer soft|gl  which renderer draws the canvas
      --shot out.png      render one step to a picture and exit
      --step N            which step --shot takes
      --lang CODE         interface language: en pl de es fr it uk zh
  -h  --help              this list
```

`--shot` opens no window, so it can be used from a script. On MorphOS the same options are given the Amiga way: `Koliber deck.koliber PLAY FULLSCREEN`, `Koliber deck.koliber SHOT out.png`

`STEP 2`.

21. Scripting with GREXX

The desktop editor opens a GREXX port named `KOLIBER.1` (`KOLIBER.2` for a second copy, and so on). GREXX is GLUI's take on ARexx: a `.grx` script, or the `grexx` command-line tool, sends the editor commands and reads back the result. A script can build a presentation, save it, export it and run the show:

```
/* hello.grx - a title slide, saved and rendered */
options results
address KOLIBER
'NEW FORCE'
'ADD TEXT CONTENT "Hello from GREXX" SIZE 72 COLOR #FFCC00'
title = result
'ADDSTEP OBJECT' title
'SAVE FILE hello.koliber'
'EXPORT FILE hello.mp4'
```

There are commands for the document (NEW, OPEN, SAVE, EXPORT, SHOT, QUERY, UNDO, REDO), for objects (ADD, SELECT, MOVE, RESIZE, ROTATE, COLOR, TEXT, DELETE, ...), for steps (ADDSTEP, GOTO, STEP, NOTES, VIEW) and for the show (PRESENT, NEXT, PREV, STOP, WAITIDLE). Scripts placed in the `macros` folder appear in the **Macros** menu. The full list is in `doc/GREXX.md`. The tutorial's presentation was built by such a script, in front of the camera.

22. Koliber on MorphOS

The MorphOS editor is a native MUI program on the same core: the document, the renderers, the importer and every exporter are the same code as on Windows and Linux, so files move freely between them. It draws the canvas with the software renderer or with TinyGL, decodes video and sound through the FFmpeg libraries for MorphOS, and plays sound through AHI.

The MUI interface follows the MorphOS conventions: settings in MUI windows, the Amiga file requester, and options read with `ReadArgs`. Paths may use volume names (`Work:Talks/deck.koliber`). Koliber speaks the language chosen in the Locale preferences: its catalogs are in `Catalogs/` beside the program (Polish, German, Spanish, French, Italian, Ukrainian

and Chinese). Some of the newest editing features of the desktop editor reach the MUI interface later.

23. Troubleshooting

Video does not play, or Export Video is not offered.

The FFmpeg libraries are missing. On Windows they are the `av*.dll` and `sw*.dll` files beside `Koliber.exe`; inserting a video says what is missing.

An exported video does not play in the browser.

It was written as MPEG-4, which browsers do not play, because the FFmpeg libraries had no H.264 encoder. Choose H.264 explicitly to see which encoder is used, or play the file with a media player.

The OpenGL renderer cannot be chosen.

The current OpenGL context does not offer it. Start Koliber with `--renderer gl`, or keep the software renderer, which draws the same picture.

Text looks different in PowerPoint.

PowerPoint uses a font of the same name, or a substitute when the computer does not have it. Install the font the presentation uses, or choose a common one.

Chinese menus show empty boxes.

The interface font has no Chinese characters. On Windows Koliber uses the system's Microsoft YaHei, SimHei or SimSun, and on Linux Noto Sans CJK or WenQuanYi; install one of them, or name a font with the `GLUI_FONT` environment variable.

A picture is shown as a grey box.

The file could not be found or read. The inspector's File field shows which file the object expects; **...** beside it picks another.

24. Known limits

- 3D models are stills: they do not turn during the show, and their textures are not used.
- Bold and italic are made from the font's regular cut (Koliber uses one font file per text).
- The PDF has no transitions or video: a clip appears as its placeholder.

- An animated GIF shows its first frame on the canvas; PowerPoint and the browser animate it.
- PowerPoint has no camera, so a canvas presentation becomes slides there.

25. For developers

Koliber is written in C. The core (`core/`), the renderers (`render/`), the exporters and the importer have no dependency on the user interface; the editor's logic is `editor/edit.c` , with two shells around it: GLUI on Windows and Linux, MUI on MorphOS.

- **Windows**: `win\build_release.bat` runs the tests, builds GLUI and the editor, and writes `dist\Koliber-win64.zip` . `win\run_tests.bat` runs the test suite alone. GLUI is taken from `GLUI_DIR` .
- **Linux**: `make` , and `make test` for the tests.
- **MorphOS**: `make -f Makefile.morphos` with the MorphOS SDK's GCC.

The design notes are in `doc/` : `POWERPOINT.md` , `EFFECTS.md` , `EFFECT-PLUGINS.md` (writing new transitions), `AUDIO.md` , `PLAYER.md` and `GREXX.md` .