ildaGen

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ILDA laser frames creation tool.

If you have any questions, bug reports or feature suggestions, please don't hesitate to contact me at *gitlem@gmail.com* .

List of keyboard controls

Mouse) Select drawing tool and draw
Enter) Remake object, press OK, or finalize curve
Left/Right Arrow) Cycle between frames
Up/Down Arrow) Cycle between selected objects
Delete) Delete currently selected object
Space) Change previewing mode between 2D and 3D (simulated scanner)
Shift) Force straight lines/angles when drawing
Alt) Snap mouse to ending position of last object for chaining.
Ctrl+Alt) Snap mouse to *starting* position of last object for chaining.

S) Show/snap to square grid. Double click to toggle.
R) Show radial grid. Double click to toggle.
A) Show symmetry/alignment guidelines of objects. Green lines mark the center of the screen. Gray lines mark the ending and starting points of objects, red lines are symmetrical to gray lines.

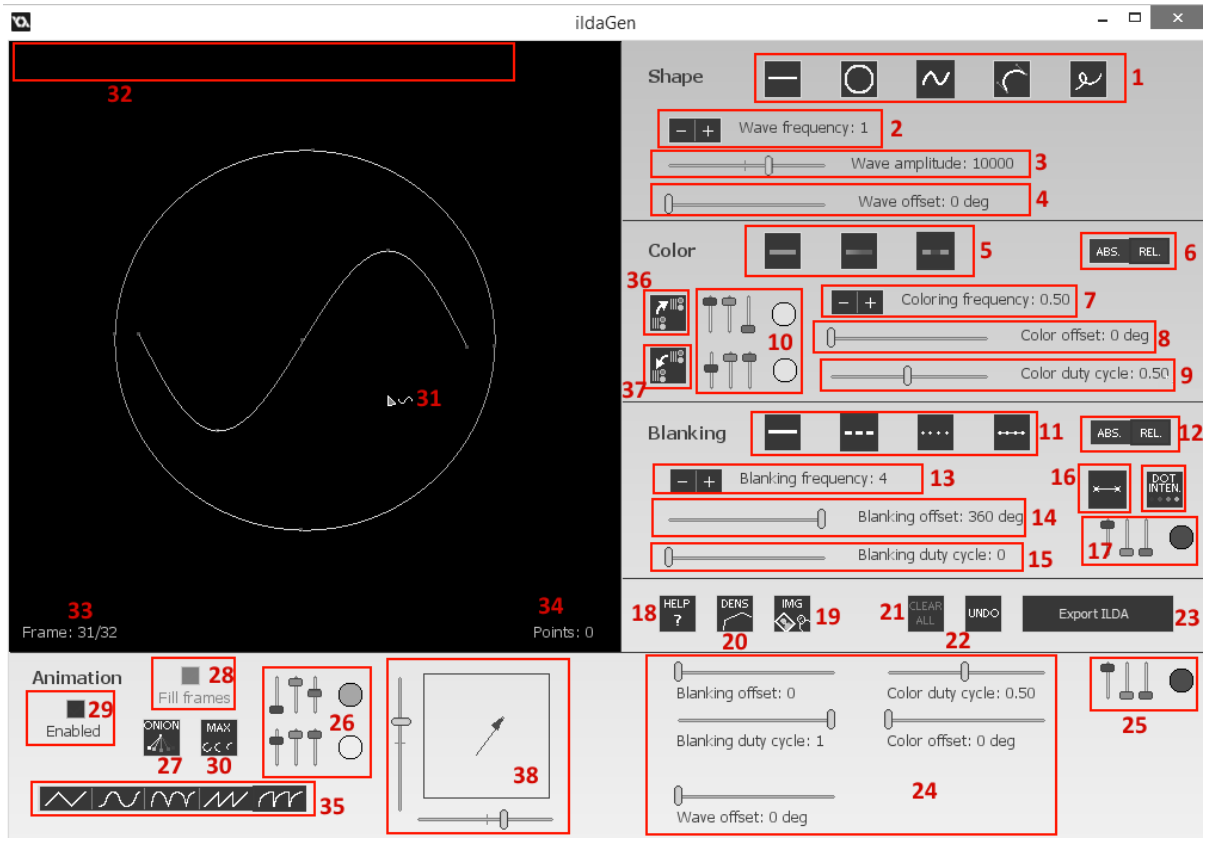
E) Clones the the cursor is pointing at, for example from a background image or a previously placed object. Left click the mouse while holding E to clone the color.

Ctrl) Move all color sliders, or center symmetrical sliders
Backspace) Cancel object placing (used with curve tool)
Ctrl+Z) Undo
0) Jumps to the first frame

Mouse wheel) Adjust wave amplitude
Ctrl+Mouse wheel) Adjust wave frequency

N) Reset window aspect ratio
M) Reset window size

User Interface



Some of these sliders and selectors may not appear to you, this is because they are only visible when the relevant drawing mode is selected. For example, the wave settings 2), 3) and 3) are only visible if you have selected the wave drawing tool. Here is a brief explanation of all numbered items on the screen:

1) This is the drawing tools selector. As of v0.9.4 you can choose between a line tool, circle tool, wave tool, curve tool and free drawing. Click the buttons to select them.

   The line, circle, wave and free drawing tool will be created just as they are previewed at the time you release the mouse button. However, when the curve tool is selected and you release the button, you will enter adjustment mode. Two green bars will appear next to the curve. By dragging the tips of those bars with your mouse, you can manipulate how the curve looks. When you are done, click the enter button to finalize and create the object. If you wish to cancel while in adjustment mode, press delete or backspace.

2) The + and - button lets you increase or decrease the wave frequency.

3) The slider lets you adjust the wave amplitude (height). Negative values are possible, and inverts the wave.

4) This slider lets you adjust the offset of the wave, from 0 (no offset) to 360 (one full period offset)

5) This is the color tools selector. As of v0.9.1 you can choose between one solid color, two-color gradient, and two-color alternating (dashed)

6) This lets you switch between absolute and relative interval length when using the dashed og gradient color tool. When relative is selected, the number of intervals per drawn object is constant, and when absolute is selected, the length of the interval is constant.

7) This lets you choose the frequency (number of intervals per object) of the dashed or gradient coloring. When relative mode is selected (see 6), this is switched with a slider that lets you adjust the length of the intervals.

8) Here you can change the offset of the dashed or gradient coloring, from 0 (no offset) to 360 (one full period offset)

9) Here you can change the duty cycle (ratio of color 1 to color 2) of the dashed coloring. The higher the duty cycle, the shorter the intervals of color 2.

10) These are the color selectors. The top selector is for color 1, and the bottom is for color 2. When solid coloring mode is selected, only the selector for color 1 is visible. The selectors have three sliders each, for red, green and blue. They are blended additively, like laser light, so for example red at max, green at max and blue at zero creates the color yellow.

11) These are the blanking tools. As of now you can choose between no blanking, dashed blanking (intervals), dotted blanking and no blanking but with dots added periodically.

12) Similar to 6), this lets you choose between absolute and relative blanking interval lengths.

13) Similar to 7), this lets you adjust the frequency or length of the blanking intervals.

14) Similar to 8), this lets you adjust the blanking offset.

15) Similar to 9), this lets you adjust the blanking duty cycle.

16) This toggled dotted ends, meaning that a dot is placed at the start and end of blanking intervals.

17) This color selector lets you choose the color of the dots at the end of blanking intervals, as explained in 16), or the colors of the dots in the "no blanking but with periodic dots" blanking mode.

18) This button downloads this manual, or shows tells you the keyboard controls when hovering over it.

19) This buttons lets you load a PNG image from your computer to get superimposed on the screen, allowing you to trace the outlines when drawing the frame. Clicking it a second time will disable the image.

20) This button lets you select the point density/resolution (detail level) of the points in the ilda frame. The lower number the smoother the curves and color fading becomes, but the file size and bandwidth requirements increases and program performance drops. At the standard value of 256, points are about 2 pixels on the screen apart. This varies linearly, so for example a value of 512 makes the points separated by about 4 pixels. The start and ending points are constant, so if you are drawing straight single-colored lines, you might want to increase this value very high so that the line only consists of two points. When animating blanking, or using gradient coloring, it is recommended to select a low value for best accuracy, for example 128.

21) This button discards your work and clears all objects in every frame. Not undoable, so be careful.

22) This button lets you undo your last action. You can also press Ctrl+Z. As of now only drawing an object and clicking the DENS or MAX buttons counts as undoable actions.

23) This button exports your work into an ILDA file. If you have not yet entered a registration serial code, it will ask you for one. You must remember to end the name of the file in ".ild", or the program creates a file with no extension and you need to rename it to be able to open it with other programs.

24) These sliders are the end-of-animation equivalents of some of the sliders explained above. They let you animate their values. If you for example set the main "blanking offset" slider to 0 degrees, and the second "blanking offset" slider in this area to 360 degrees, the object will be animated, starting with a blanking offset of 0, and transitioning to 360 over the course of the animation.

25) Same as 24), except with the dotted ends color.

26) Same as 24), except with the color 1 and color 2 selectors, from left to right respectively.

27) This button toggles onion skinning. It superimposes the two previous frames over the current one, to let you manually draw animated frames easier.

28) This checkbox toggles filling all the frames with the current object. If this is selected, an object, even if animation is disabled, will be copied to all the frames rather than just the active one. Also, this decides whether the last frame will be copied to the rest when using button 19) to extend the number of frames. When loading external ilda files, this button decides whether or not the ilda file loops after reaching the end, if the number of frames is lower than that of the ildagen project. For example, when this button is checked and you load a 10 frame long file into a project that currently have 30 frames, the loaded file will loop three times. However, when remaking the object (see button 39), all the frames count as one cycle. You can use this to stack animations with different speeds/periods onto the same object.

29) This checkbox enables or disables animation. If this is unchecked, the objects you place will be unchanging in all frames.

30) This button lets you adjust the number of total frames in the animation.

31) This is your mouse cursor. Click, drag and release in the black area to place an object.

32) In this corner you will see tooltips when hovering your mouse over the different items/tools on screen.

33) This shows you which frame you are viewing, and the total number of frames in the animation. Use your arrow keys to cycle between them.

34) This shows you the number of data points in the current frame.

35) This is the animation mode selector. It lets you choose the animation function, in other words how the transition over time looks, and whether or not the animation loops.

36) This button lets you copy the animation end colors (26) over to the main color (10).

37) Opposite of 36), this lets you copy the main colors over to the animation end colors.

38) This is the movement animator. It lets you move the objects you place from their original location to another location over the course of the animation. The horizontal and vertical sliders decide horizontal and vertical displacement. The arrow in the middle lets you preview the combined movement of the object.

39) This button remakes the selected object (you can select objects by using the up/down arrow keys). In other words it reapplies new properties such as blanking and coloring to the object. The shape of the object stays the same, however. A shortcut for this button is the Enter key.

System Requirements

Minimum:

- Windows XP, Vista, 7 or 8 with DirectX (windows version)
- Modern browser with HTML5 support (web version)
- 512MB RAM
- 128MB graphics

Recommended:

- Windows Vista, 7 or 8 (windows version)
- 2GB RAM
- Modern graphics card with at least 256MB memory
- For the web version, a relatively powerful processor