







There are three ways in Formfinder to navigate in the Viewport.

	Explore Mode ④	Passive Mode	Keyboard
Rotate		 + [ALT]	[ARROW KEYS]
Pan			[ARROW KEYS] + [CTRL]
Zoom			[ARROW KEYS] + [SHIFT]
	Click on the symbol bar to explore your model	Change view position while in Sketch Mode or Select Mode	Change view position stepwise with your keyboard

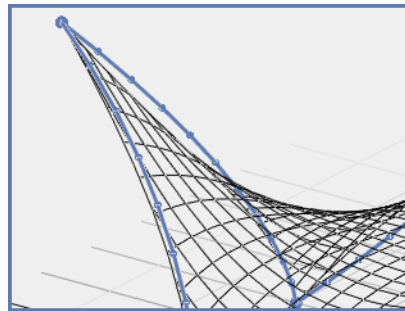
Viewport Navigation

This is the central aspect of the application.

The design of form-active structures requires a different mathematical calculation than traditional 3D applications provide.

The user sketches edge lines, changes fixity and tweaks net parameter. The algorithm calculates a net which approximately matches the blue lines but relaxes in a position where all internal forces are equal. This is the preferred state of a form-active net in textile roofs, textile facades, cable net structures, pneumatic systems and minimal surfaces.

⑥ The formfinding algorithm can be triggered by clicking the round button. If the "Auto" button is pressed, the application recalculates the formfinding when required by changes to parameters.



Formfinding

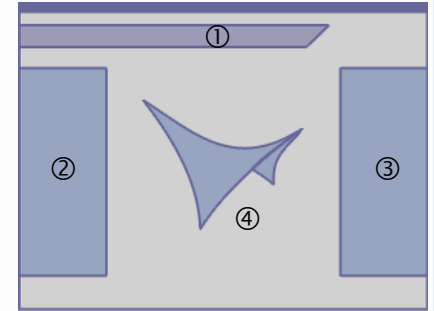
The formfinder application is organised into four major components.

① **Symbol Bar:** access to major actions and also gives control over automatic or manual formfinding.

② **Properties Panel:** access to all parameters which affect the shape of a form-active structure. Points, edges, nets and proportions of the whole model can be tweaked here.

③ **Dialogue Panel:** An integrated web browser, which analyses your design and compares it to a catalogue of idealised prototypes and real buildings.

④ **Viewport:** A three dimensional working area where you can sketch up, manipulate and explore your model with mouse and keyboard.



General Layout

Formfinder



www.formfinder.at

Design Tools

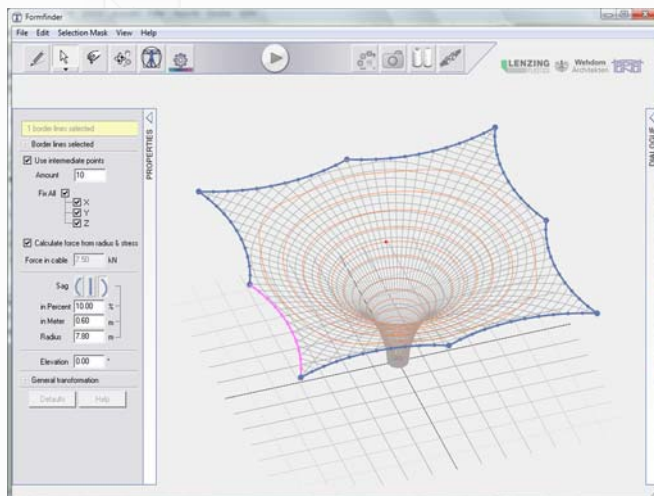
The application provides a basic tool set to create form-active models in the Viewport. The Properties Panel (click on the vertical bar to expand it) gives access to essential numerical parameters.

① **Sketch:** Sketch a closed polygon by clicking in the Viewport.

You can extend or divide your model by adding more lines.

② **Select:** You can select points, edges and nets. Keep [Shift] pressed to select multiple elements. You can also drag a selection window. Selection masks help you to just select the desired element type.

③ **Move:** You can move points and nets on the ground plane. Press the [Ctrl] key to move elements in the Vertical-Axis. Edges change sag and elevation.

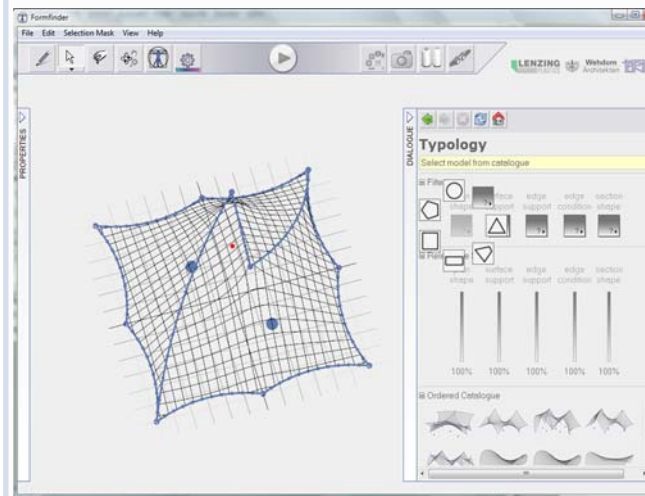


Formfinder is unique in its approach to establishing a dialogue with a designer during the design process. An integrated web browser offers some offline and advanced online features with a broadband connection.

⑦ **Typology:** By clicking this icon the current user model from the Viewport is analysed by the application and aspects are compared to an idealised catalogue of prototypes. The user can preview a prototype and even add it to the Viewport and continue working with it. To repeat the analysis cycle click the Typology button again.

⑧ **Projects:** a limited selection of form-active buildings is included in the offline version. For a wider range of databases entries use the online version.

⑨ **Material:** An initial materials database provides details about important material properties.



Dialogue