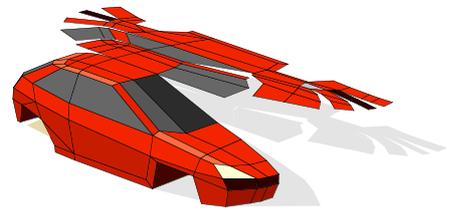


TouchCAD



Marine design

TouchCAD is based upon the concept of not only designing 3D-shapes, but also upon converting such shapes into something possible to fabricate physically. It does so by unfolding / unwrapping just about any shape.

3D modeling and unfolding

TouchCAD's 3D engine is based on 3D math curves. Shapes can easily be modified on the screen using modern push-pull methods, as well as numerically, in the Object Info palette. All control points are located on the objects, and are fully editable in 3D using dynamic cross sectioning seen from any view, to ensure maximal shape control. Models can be rendered and animated to visualize shapes. In-scale background images, separate for the Front, Top and Side views, can be imported to assist when modeling in 3D. Imported images can be adjusted to remove unwanted scale, rotation, proportional, and perspective errors.

Unfolding

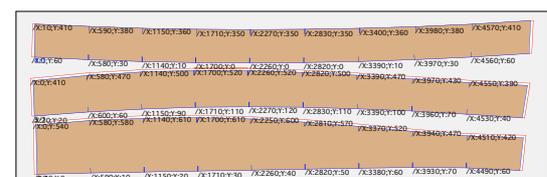
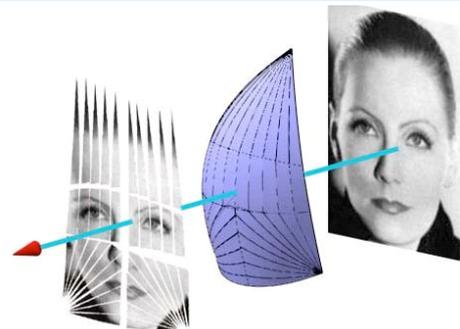
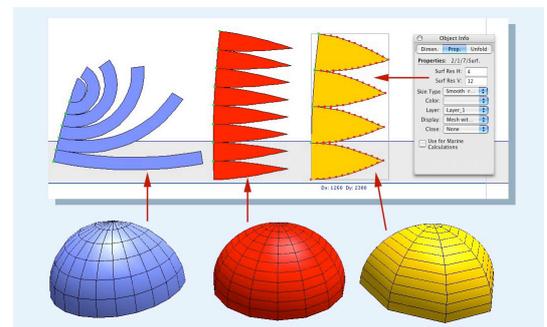
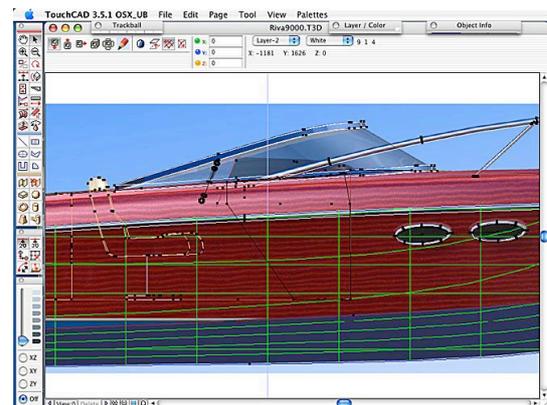
Any 3D shape can be unfolded. Each panel has its own set of unfolding properties, dynamically linked to the 3D model. Changes made in 3D can instantly be seen in the Unfold view, to allow efficient use of material. Unfolded panels can be moved, rotated and flipped in the Unfold view without losing the dynamic link to the 3D shape, to generate ready to cut layouts using the built-in nesting area. The unfolding features include many parametric features such as strip resolution, direction, individual overlaps for each panel and panel side, automatic panel and point numbering, alignment marks, stretch unfold calculations, automatic coordinate measurements, etc.

Marine calculations

Any number of panels can be used for calculating key marine properties, such as displacement, center of buoyancy and gravity, wetted surface, etc. All objects have their own weight properties, and calculating weights and center of gravity can be done during the entire design process.

Results in manual or digital form

The output delivered from TouchCAD can be processed both manually by using the automatic coordinate features and table of offsets, or digitally by exporting files in formats like Adobe Illustrator, DXF, HPGL, VectorWorks (-Script), Sails Science Plotmaker, and in image formats such as JPEG, TIFF, TARGA, BMP, PICT. TouchCAD can generate presentation movies in QuickTime format.

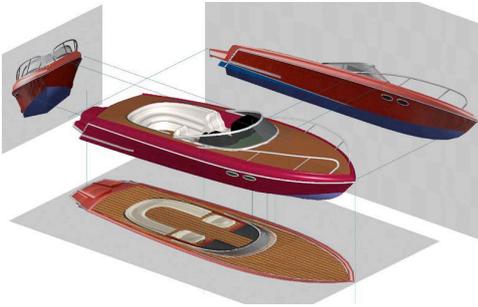


Technical data

TouchCAD needs Mac (OSX 10.3-), or Windows (XP / Vista). 1 G RAM, 1 GHz processor or better. QuickTime and OpenGL installed. USB port. Tutorial movies are included.



Sample projects



Import high res background images. Correct them in scale, rotation, proportions and perspective, place them correctly relatively to one another. TouchCAD only displays the relevant image for the respective view.



Apply the images to the 3D shapes and unfold them to generate realistically looking scale models.



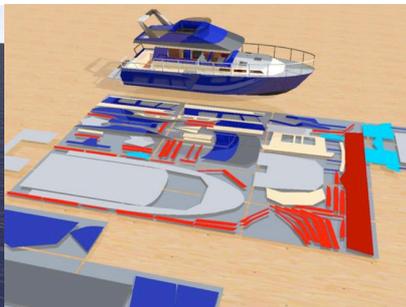
© 2006 Claes Lundström Design, Sweden

Sails and graphics on sails. WB Sails, Helsinki, Finland.

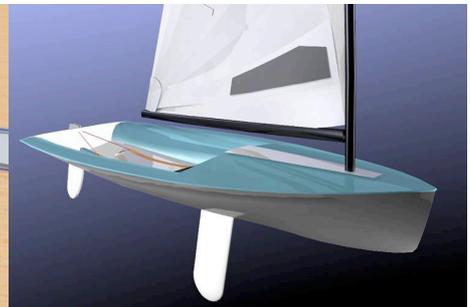
Steam boat. 9.1 meter long. Three cylinder steam engine. Hull and deck in aluminum. Modeling and rendering in TouchCAD. Design by Claes Lundström



14-meter catamaran designed by Tim Cordes. 9 meter wide. Sail area: 85 m².



Project Tindra. 12.5 meter, aluminum, water jet. Design Claes Lundström



Europa modeled by Miko Brummer of WB Sails in Finland.



SeaJeep 66. 6.6 x 2.45 meter aluminum boat in the so-called SeaJeep series, which ranges from 3.8 to 11 meters in length. Design Claes Lundström



Alma Blue 341. 34 foot aluminum cruiser. Design Claes Lundström



Shadow 801. 8 x 2.6. Aluminum. Design Claes Lundström