

AVS Hull

User's Manual

This is a preliminary user's manual. A longer, more complete version will be published as I have time to write it.

Basic Principles

The shape of the hull is defined by bulkheads. You define the bulkhead positions and shapes, and everything else about the hull is determined by the bulkheads. Bulkheads come in three forms:

1. Bow: Can come at either the front or back of the boat (bow or stern). This bulkhead has all of its points on the centerline. It is used for "pointy" bows (and sterns).
2. Vertical: All bulkheads except the bow and stern are vertical. They are always straight up and down (thus "vertical"), and they are symmetric left and right.
3. Stern: Can come at either the front or back of the boat (bow or stern). This bulkhead type is similar to a vertical bulkhead except that you get to specify an angle. It does not have to be vertical.

The number and initial position of bulkheads, and the number of points on each bulkhead (which become "chines") is specified when you initially create the hull.

There are three main screens in the program: Design, Layout, and Waterlines. The design screen is used to create the shape and size of your hull. The Layout screen is used to layout the panels that will be used to form your boat. The Waterlines screen is used to compute and display various attributes of the hull (such as how much weight can it hold before it sinks). These screens are described in the following sections.

Design

The Design screen is used to create the shape and size of your hull.

More details on how to use this screen will be included in future versions of this user manual.

Layout

The Layout screen is used to create a layout of what panels need to be cut in order to create your hull. You can control the size, number, and layout of the sheets (of plywood) that you will use as well as what panels go where.

More details on how to use this screen will be included in future versions of this user manual.

Waterlines

The Waterlines screen is used to compute various parameters about your hull.

More details on how to use this screen will be included in future versions of this user manual.