

Marks and Courses

This paper describes how marks and courses work in OS5.

Marks are the points that define the corners of a racecourse. There are two basic kinds of marks:

Fixed marks have a defined position (a latitude and longitude).

Floaters have a defined **Range** and **Bearing** relative to some fixed mark. When a course is reset, floaters are moved to their correct location relative to the fixed mark. Bearing can be absolute (so many degrees magnetic) or relative (so many degrees from the course Base Bearing). Range can be fixed (a fixed range) or scaled (range times the course Scale).

Marks are organized into named **Mark Groups**. This simplifies the task of finding the mark you want. There are two predefined mark groups; **Start** and **Floater**s.

The start group contains **S** and **P**, the two ends of the starting line. These are used as the start for all courses. These marks can be placed graphically in Race's Chart page, and "Pinged" in the StartLine page. One of these marks is also usually set as a course origin.

The floaters group contains mark **W**, defined as 1 scalable mile to windward. This is the only mark used in the predefined course **WL**. Changing the course bearing or scale, or 'Resetting Floaters', moves W to the correct location relative to the current starting line.

Marks are normally maintained in Race Chart page



Courses are a collection of marks, and an order of rounding. They also have a **Base Bearing** and **Scale** (to allow floaters to be moved appropriately), and an **Origin** (where most floaters base their location). If the course consists only of fixed marks, these items have no effect.

Storage and synchronization

Marks and courses are stored in the local storage of each application. In addition, the driver stores a copy in its local storage. When an application starts, it updates its marks and courses from the driver (if running). Thereafter, if an application changes something, it sends the new data to the driver which in turn forwards it to all the other apps.

If you need multiple applications to maintain synchronization of marks and courses, the driver must be running, and all apps must be able to access the it, so changes in one app are promulgated to everybody.