HalSail FAQ

What is the technical background to HalSail?

The following are the key technologies used to build HalSail.

Server

HalSail runs on a virtual machine hosted in the UK by Fasthosts running Windows Server 2022. The data is held in a SQL Server 2022 database running on the same machine.

Server-side programming

HalSail is an ASP.Net MVC web site programmed in C#. It uses the Razor view engine and produces HTML5 output.

Client-side programming

Pages are written in HTML5 and CSS3 with extensive scripting in javascript and jQuery. Key jQuery plugins used are DataTables and FullCalendar.

Much use is made of Ajax to bring data from the server to the client without replacing the entire page.

Styling is based on Bootstrap 5.

Content Delivery Network

The public result pages of HalSail get a lot of use, especially during large regattas. There is a tendency for everybody to go online with their phones immediately after crossing the finish line to see how they have done. This puts a heavy peak load on the server.

To spread the load, HalSail uses the KeyCDN content delivery network. Calls to the public result pages are diverted to KeyCDN which remembers pages it has already delivered. If it has a copy of the result that is less than five minutes old, it serves it to the user. If it does not have a copy of the particular result, or its copy is more than five minutes old, it requests a new one from HalSail.

This has the inevitable effect that users may not see results input by the race officer, or other official, during the last five minutes.

Tools used by HalSail

Links to websites
Help index