Leamington Spa Sailing Club race starter and timer

LSSC uses a bespoke automated system for starting and monitoring sailing races. The purpose is to automate as many of the race officer tasks as possible by doing the following items:

- Determining and setting up the types of race(s) being run on that day, and the start time(s) for them from a pre-defined race calendar
- Simplifying the logging in of crews who are racing, by on-screen mouse selection from a regular sailors list
- Automatically assigning normal boat types and handicaps to regular racing crews
- Handling normally 2 crewed boats being sailed by single sailors
- Allowing easy selection of alternative boats being raced by regular sailors or visitors
- Showing the start times for all of the boats racing and which one starts next
- Keeping and displaying the precise current time, and the time to the next horn signal
- Sounding the horn for pre-race start, race start and for each racing boat's handicap start time
- Signalling to the race office 10 seconds before any horn signal is sounded
- Allowing the race officer to optionally log boats as they complete a lap.
- Show the current race positions and last lap time if lap logging is being used
- Sound the end race horn signal
- Allow final race positions to be entered and saved to a file
- Allow pursuit, boat handicap and personal handicap races to be all managed

The system is most useful for clubs with a mixed fleet of boat types sailing which use the Portsmouth Yardstick boat handicap system for pursuit or handicap races.

Hardware - The system uses a Raspberry Pi model 4b single board computer with an external battery powered real time clock, a raspberry Pi 5 volt, 4 amp mains power supply, a bespoke interface to the mains powered horn, and a standard VGA or HDMI PC monitor, USB mouse and USB keyboard.

Software – The software is written in a free copy of Python which is developed on a standard Windows PC and copied across to the Raspberry Pi on a memory stick. The software can also be run on a standard Windows PC or laptop but it currently doesn't have a horn interface that can be plugged into a PC USB port.

Files - Files are maintained on spreadsheets and stored in CSV format are used to configure the system. They define the race calendar for as long ahead as you wish, boat types and their PY handicaps, regular sailors and their normal boats and sail numbers. These can be maintained on the race machine or on a separate PC and copied across on a memory stick.

Limits and constraints - The system has limits on the number of types of boats and numbers of regular sailors that it can hold and display on the screen but for a small or medium sized club this should be adequate. The system holds a maximum

of 24 boat types (where a boat type that is normally crewed by 2 sailors, also counts as an extra type if it is being sailed by a single sailor). The system can also hold a maximum of 24 regular sailors, against which their normal boat type and sail number are held.

The hardware design and software are freely available from LSSC for use by any sailing club who wishes to use them, but no warranty or support is offered on them and LSSC can take no liability for any consequence of using it. It is up to the user to determine if the system performs a useful function for them and to use it appropriately. The user is free to amend or modify the system as they wish, but a reference should be retained at the start of the main program to the original source and to these conditions.

More information - Follow this link for additional information.www.davidhannaford.com/lssctimer