



HAL's Race Results Users' Manual





.....	1
INTRODUCTION	4
Means of getting help.....	4
CHAPTER 1 – GETTING STARTED	6
Requirements for running HAL	6
Downloading and installing the program	6
Putting in some sample results.....	8
CHAPTER 2 – SETTING UP FOR YOUR CLUB.....	12
Set a password	12
Make a new file.....	12
Set up the racing classes	12
Set up the boat register.....	13
Setting handicaps	14
Progressive handicaps.....	15
Reading boats from an Excel spreadsheet or another HAL file	15
Sorting and filtering the Boat Register.....	15
Boat Register Tools.....	15
Setting up the race schedule.....	16
Setting the Series Switches	16
Setting the race switches.....	17
Set up the Scoring System	18
Setting up the discards (excluded scores in a series).....	18
Setting up tandem series	18
CHAPTER 3 – ENTERING RESULTS	20
Details of the race officer and wind	20
Choosing the races	20
Boats that did not finish correctly or are penalised	22
Boats that are missing from the register.....	23
Entering results from a spreadsheet	24
Checking and printing results	24
CHAPTER 4 – ADMINISTERING RESULTS	26
Review by series	26
Review by date.....	27
Setting race status	27
CHAPTER 5 – SETUP OPTIONS	28
General setup options.....	28
New series and race settings	29
Selection Flags.....	29
On-line Services.....	30
Setup for analysing handicaps.....	30
Chapter 6 – THE INTERNET	32
HAL's Club Results Service	32
Making static pages for your own web site.....	33
Sail Racer.....	34
Chapter 7 - ANALYSIS OF RESULTS	35
Turnout statistics.....	35
Performance against handicap	35
Appendix A - Instructions to Race Officers using HAL.....	38
Before the Race.....	38
Instructions to the Race Officer for entering results into the computer	38
Appendix B – Guidelines for organising your Boats, Classes, Series and races	40



Appendix C - Guidelines for scoring a Regatta or Championship 43

- Where and when to compute the results 43
- Option 1 – Score on the committee boat after each race..... 43
- Option 2 – Score in the club after each race 43
- Option 3 – Score in the club at the end of each day..... 44
- What equipment is needed? 44
- Initial Setup..... 44
- As the Entries come in 44
- On Registration Day 45
- On the first morning..... 45
- After each Race..... 45
- Final Results and Prize Giving..... 45

Appendix D – Standard Boat Types..... 46

Appendix E – Progressive Handicaps 47

- National Handicap scheme for Cruisers (NHC)..... 47
- Other Progressive Handicaps 47



INTRODUCTION

This manual gives an overview of the facilities available in HAL's Race Results, Version 17.¹

HAL is a computer program used to calculate the results of sailing races and regattas. It allows users:

- to hold all their racing records in one file on a local computer, which can be backed up to an on-line storage device, or to offline media such as CD, DVD or USB memory sticks;
- to input results as they occur in either level races or handicap ones;
- to calculate results of each race and series scores, in accordance with the Racing Rules of Sailing²;
- to publish them on paper, or Excel spreadsheets, or pages ready for uploading to a web site, or as ISAF XML files³;
- to publish them to the HAL web server using HAL's Club Results Service, so that they will always be up-to-date and ready to view on line or feed into any web site;
- to upload them to the HalSail⁴ web site;
- to analyse the turnout statistics of each boat in the races held for it;
- to analyse the performance of each boat in handicap races, so as to assess the accuracy of its handicap;
- to upload handicap analysis results to the RYA Portsmouth Yardstick on-line database⁵.

The best way to begin learning the program is to read Chapter 1 and follow through the examples on your computer.

Means of getting help

There are a number of ways to get additional help beyond this manual.

- At any time while the program is running you can press key <F1> to bring up a help screen pertaining to that particular part of the program.
- The HAL site (<http://www.halsraceresults.com>) has many pages devoted to helping users. They are grouped under the *Support* page. In addition to downloading this manual, you can:
 - Review a list of frequently asked questions (FAQs).
 - Get white papers on topics with advice on particular aspects of the program.
 - Get copies of all the bulletins emailed to users by the publisher over the last year or two.
 - Visit the users' forum Yahoo. There you can review the previously asked questions and answers, pose a question yourself or post a comment.
 - See which versions of the program have been published and the new facilities introduced in each of them.

¹ HAL's Race Results has been issued as a new version each year from 2001. The first eight versions were evolutions of the original Microsoft Access program, designated HAL's Race Results Mk.1. Version 9 was the first of the Mk.2 versions.

² Racing Rules of Sailing 2017-2020, International Sailing Federation (ISAF).

³ ISAF XML files are used to exchange information about sailing results. They conform to a standard laid down by the International Sailing Federation.

⁴ HalSail is the on-line version of HAL. You can upload HAL files to this web app and manipulate them with a browser. You can also download your data from HalSail as a HAL file.

⁵ The Royal Yachting Association collects results from Portsmouth Yardstick races on a special web site. The published yardsticks for dinghies, catamarans and small keelboats come from statistical analysis of all the results gathered in that way.



HAL's Race Results Users' Manual

- You can contact the publishers of the program through the web site to ask any questions that are not answered elsewhere.



CHAPTER 1 – GETTING STARTED

Requirements for running HAL

To run HAL you must have a PC running at least Windows XP. Later versions of Windows (Vista, Windows 7, 8 and 10) are fine. There is no version for a Macintosh, but it can be run on Macs using Windows Emulation. Alternatively, you can use the on-line version of HAL at www.HalSail.com.

The display should be at least 900 x 600 pixels, which is the resolution of most net book computers. Higher-resolution displays are fine.

Downloading and installing the program

Download the program from the HAL web site at <http://www.HalsRaceResults.com>. You can either set the download procedure to run the set-up routine automatically, or you can download the program to your computer and run it by double-clicking the file. If you wish to install it on several machines, a good option is to download it to a memory stick and install it onto each computer from there.

You need to be logged into your computer on an administrative account to run the set-up routine, so if you are not it is best to download the program to a file, then log in as an administrator and double-click the file to run it. Alternatively, on Windows Vista and above, you can right-click the file while logged in as any user and choose *run as administrator* from the popup menu that appears. You will need to know the Windows administrator's password⁶.

The set-up program will place a shortcut icon on your desktop to run the program. It will also place a shortcut icon in a folder called "HAL" in your program list under the *START* Menu.

Exploring the demonstration data

When you start the program for the first time you will be asked to give the name of your club. Once you have answered this question, the program is ready to use and you will see the top-level screen (Figure 1).

Open the *File* menu and click *Open demonstration data*. You will be warned that this data is read-only, but this need not concern you as you do not want to save any changes you make. Click *Log in as administrator*. You will be asked to set the password, but you can ignore this for now.

The administrative components of the program are the ones on the left-hand side of the screen below the large *Enter Results* button. Briefly click on each of these

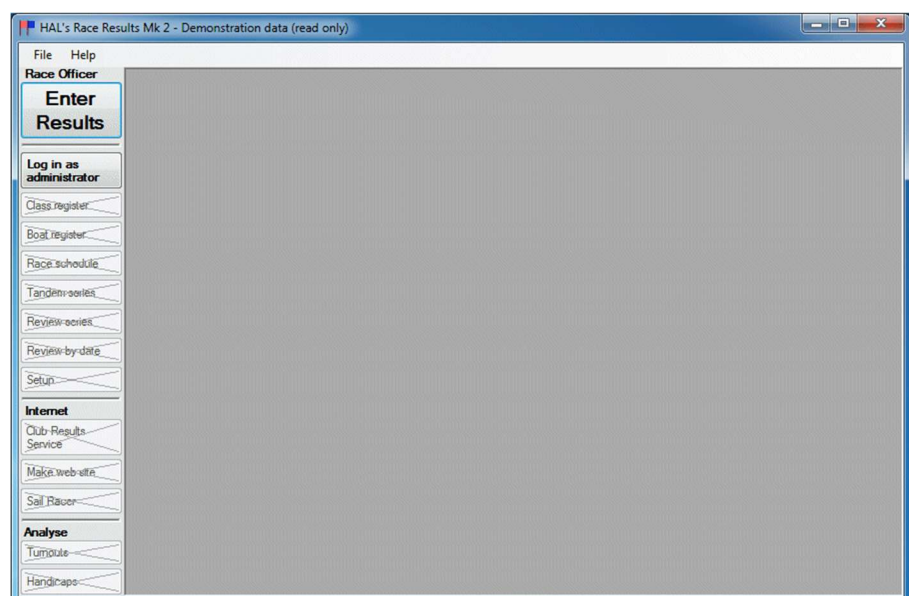


Figure 1. The top-level screen

⁶ The Windows administrator's password is not to be confused with the HAL's Race Results administrator's password which you will learn about in Chapter 2. They are separate items.



HAL's Race Results Users' Manual

in turn to see what the program has to offer. Do not, at this stage, try to change anything, just examine the various features.

If you click *Class Register* you will see that the demonstration data has nine racing classes, typical of many clubs (Figure 2):

- All-in handicap – used when all boats race together under Portsmouth Yardstick handicaps (RYA_PY) in special events
- Cruisers – keelboat handicap class racing under National Handicap scheme for Cruisers (NHC)
- Cruisers – Fast, for when the Cruiser fleet is split into two divisions
- Cruisers – Slow, the other half of the fleet when it is split into two divisions
- Dinghies – dinghy handicap class under Portsmouth Yardstick
- Flying Fifteens – small keelboats racing level as a class
- Hot Shots – keelboats racing under the IRC handicapping system
- Lasers – racing level
- Small Cats – racing under the Small Catamaran Scheme of handicapping

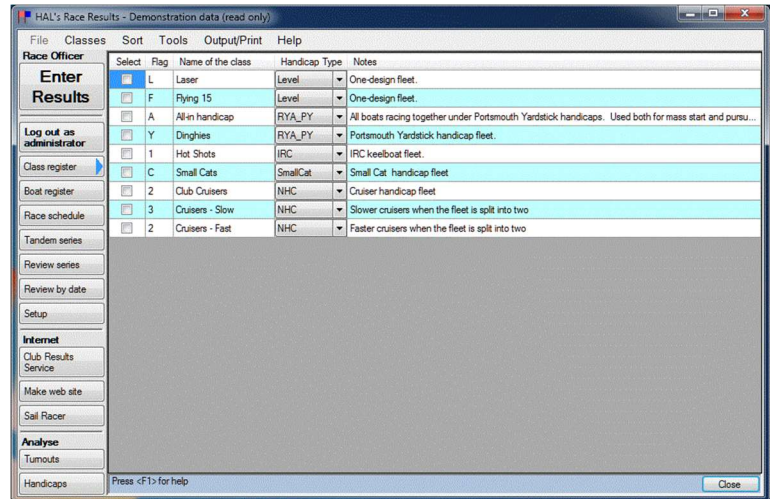


Figure 2. The Class Register

Click *Boat register* to see details of each boat and the classes it is a member of (Figure 3). Use arrows at the bottom of the screen to scroll through the boats, or pick them out on the index of sail numbers. Usually each boat is a member of two classes: its particular class and the all-in handicap. In many clubs, boats may be members of more than two classes to cater for different types of racing. The cruisers might sometimes split into a fast and a slow fleet, for example, and sometimes race together. Or they might sometimes race under NHC and sometimes under IRC.

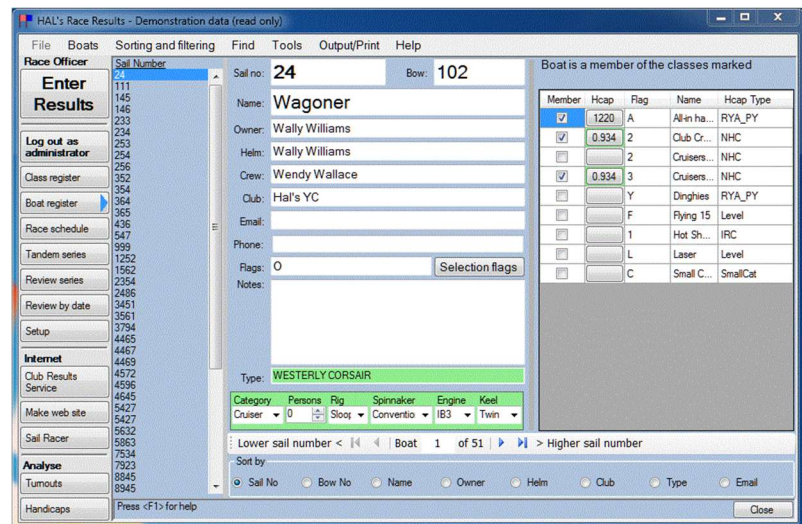


Figure 3. The Boat Register



HAL's Race Results Users' Manual

Open the *Race schedule* to see what races and series are scheduled for the various classes (Figure 4). There is a Spring Series for the Cruiser class, which take place on Sundays in April and May. One series of evening races is scheduled for each of the Flying Fifteen, Laser, Dinghy and Catamaran classes on Thursdays during May and June. There are separate series for Slow and Fast Cruisers on Sunday mornings in May and June. In addition there is a single all-in pursuit race for everybody and an all-in handicap race.

Appendix B gives guidelines for setting up the Class and Boat Registers and the Race Schedule.

Click *Tandem series* (Figure 5). Tandem series copy their results from other series. There is a version of the Spring Series for the Hot Shot class, which recalculates the results from the Cruiser Spring Series using IRC handicaps, and a tandem series combining the results of the Summer Series fast and slow divisions into one set of results for all Cruisers.

If you click either *Review by series* or *Review by date* you can examine the results already in the database.

Putting in some sample results

Now that you understand how the program is structured, you are in a position to enter some sample results. This is an operation normally carried out by the race officer after each race and so can be done without logging in as the administrator of the program.

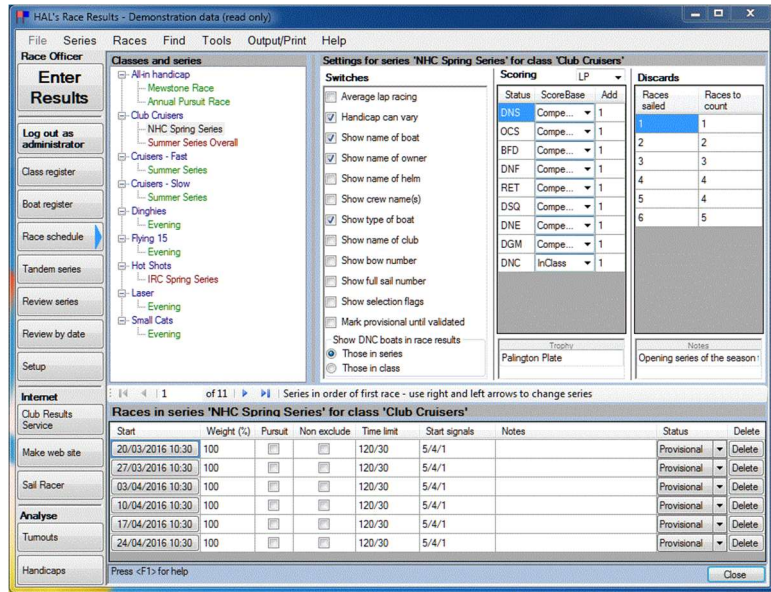


Figure 4. The Race Schedule

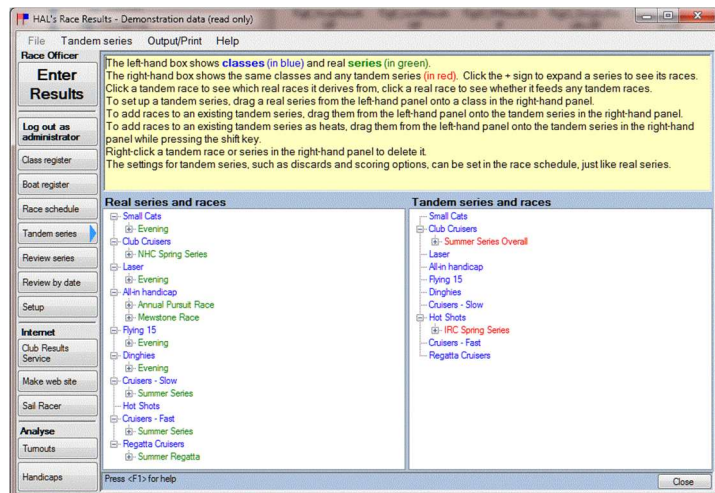


Figure 5. Tandem Races



HAL's Race Results Users' Manual

Click *Enter Results*. You will be asked to give the name of the race officer and details of the wind conditions (Figure 6). These are not essential to the results, but help in any later analysis.

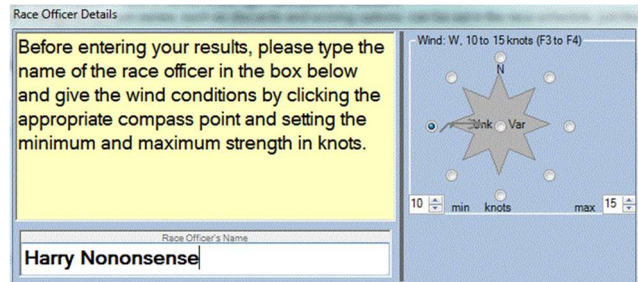


Figure 6. Enter race officer details

Try entering some data, as if you were entering the results of races for today's date.

The classes racing are Flying Fifteens, Lasers, Dinghies and Catamarans which all have evening races. Select all of these by clicking the boxes.

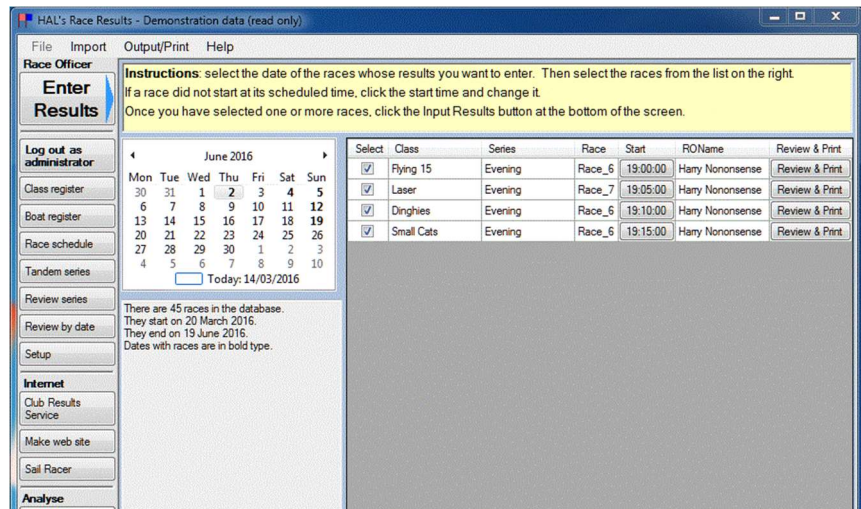


Figure 7. Choose races before entering results

Click *Input Results* to bring up the screen shown in two versions in Figure 8 and Figure 9. One version is for a handicap race and one for a level race.

Sail number	Place or time	Comment
145	20:01:52	First boat home, a Dinghy
365	1	First Flying Fifteen
436	2	
3561	20:02:53	
7534	20:03:50	
256	20:04:10	First catamaran
4596	20:04:35	
547	3	
999	4	
200163	20:04:58	
15689	20:05:00	
197845	1	First Laser
198735	2	
5632	20:05:01	
7923	20:05:23	
364	5	
183456	3	
197564	Set status to DNF	This Laser did not finish the race
5427	20:20:10	

Table 1. Results for Thursday 2 June 2016



HAL's Race Results Users' Manual

Type the first sail number in Table 1 into the box, or select it from the list on the left of the screen.

Note that you do not have to sort the results into classes before inputting them; in fact the easiest way is to put them in exactly as they crossed the finish line, irrespective of class.

If the boat is a member of a handicap fleet, the program will ask for a finish time (Figure 8). Assuming the boat finished normally, you enter the time and click *OK* to move on to the next boat. If the boat was not a normal finisher, enter its status on the right of the screen in accordance with those given in Racing Rules of Sailing, Appendix A.

If it is level racing, the program will show its place (Figure 9). Note that when putting in the results of level races, you must enter the boats in the order they crossed the finishing line. To help in this, the next place in the class will be entered automatically.

If you input the sail numbers shown in the left-hand column of Table 1, the computer will ask for either a time or place, depending on whether the race is a handicap or level one. Respond with the data in the second column.

Enter Results

Instructions: Choose a method of selection at bottom of the screen, then type a sail number, bow number, boat name or helm name into the box. Or pick from the list. When you have chosen a boat, enter its result in the right-hand panel then click *OK* or press *Enter*.
If the boat was not being sailed by its regular helm and crew, enter the names of the guests bottom right.
Non-handicap results must be entered in the order of finishing. You cannot alter the allocated place here, but you can do so when you review the results later.
Once you have input all the results, click *Close*.

Type a sail number
145

Sail No	Helm	Class	Type
145	Helios Thalik	Dinghies	LASER 4000

Boat not in the list? Click to add a new one.

Select boats by
 Sail number and helm
 Sail number and boat name
 Bow number
 Boat name
 Helm name

Press <F1> for help

Finish
Hours: 20 : Mins: 01 : Secs: 52
June 2014
Mon Tue Wed Thu Fri Sat Sun
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
30 1 2 3 4 5 6
Time limit 21:10:00
Notes
Guest helm
Guest crew

Status
Finisher
 OK - Normal Finisher
 SCP - Yellow Flag 0
 ZFP - Z Flag Penalty
 XPA - Exon 0
 PTP - Time % 0
 PTA - Time S 0
 DPI - 0.0
Redress
 RDG1 - Average All Races
 RDG2 - Avg Excluding
 RDG3 - Avg Previous
 RDG4 - Place 0
 RDG5 - Points 0
RDG counts as starter

Non Finisher
 DNS - Did Not Start
 OCS - On Course Side
 BFD - Black Flag Daq
 DNF - Did Not Finish
 RET - Retired
 DSQ - Disqualified
 DNE - Disqualified Rule
 DGM - Disqualified gross
 FNE - Fixed 0.0
 DNC - Did Not Compete

OK - Input next boat Cancel input for this boat Close input and go to review/print

Figure 8. Enter a handicap result

Enter Results

Instructions: Choose a method of selection at bottom of the screen, then type a sail number, bow number, boat name or helm name into the box. Or pick from the list.
When you have chosen a boat, enter its result in the right-hand panel then click *OK* or press *Enter*.
Non-handicap results must be entered in the order of finishing. You cannot alter the allocated place here, but you can do so when you review the results later.
Once you have input all the results, click *Close*.

Type a sail number
365

Sail No	Helm	Class	Type
365	Andy Hansco	Flying 15	FLYING 15

Boats in pink already have a result entered. You can change it if you wish.
Press <F1> for help

Select boats by
 Sail number (showing also helm)
 Sail number (showing also boat name)
 Bow number
 Boat name
 Helm name

Place: 1

Status
Finisher
 OK - Normal Finisher
 SCP - Yellow Flag 0
 ZFP - Z Flag Penalty
 XPA - Exon 0
 PTP - Time % 0
 PTA - Time S 0
 DPI - 0.0
Redress
 RDG1 - Average All Races
 RDG2 - Avg Excluding
 RDG3 - Avg Previous
 RDG4 - Place 0
 RDG5 - Points 0
RDG counts as starter

Non Finisher
 DNS - Did Not Start
 OCS - On Course Side
 BFD - Black Flag Daq
 DNF - Did Not Finish
 RAF - Retired After
 DSQ - Disqualified
 DNE - Disqualified Rule
 DGM - Disqualified gross
 FNE - Fixed 0.0
 DNC - Did Not Compete

OK - Input next boat Cancel input for this boat Close input and go to review/print

Figure 9. Enter a level (non-handicap) results

Once you have put in the data, click *Close input*. Click *Review/Print* to see the results of each of the races. After examining them and, if necessary making any alterations, you can print the results of this race using *Output/Print*. You should get reports similar to Figure 10 and Figure 11.



HAL's Race Results Users' Manual

HAL Yacht Club

Class: Flying 15
Start: 02 June 2016 19:00:00

Evening
Race_6

Place	Sail No	Name	Owner	Points
1	365	Flying Fish	Andy Hancock	1
2	436	Frying Fat	Charlie Chip	2
3	547	Foxtrot Fandango	Victor Silvester	3
4	999	Fat Freddie	Fred Tubby	4
5	364	Felicity's Folly	Felicity Macintosh	5
DNC	111	Flighty Fannie	Fanny Frobisher	9
DNC	233	Fred's Fancy	Fred Smith	9
DNC	254	Freda's Fling	Freda Jones	9

Results last updated on 14/03/2016 at 09:30

Race officer was Harry Nononsense
Wind speed was 10 to 15 kts, direction W

Figure 10. Report of Flying Fifteen results

HAL Yacht Club

Class: Dinghies
Start: 02 June 2016 19:10:00

Evening
Race_6

Place	Sail No	Hcap	Name	Owner	Finish	Corrected	Points
1	5632	1435	Little Dorritt	Steve Dorritt	20:05:01	0:38:20	1
2	5427	1435	Wee Willy	Willy Wallace	20:20:10	0:48:54	2
3	7923	1112	Jumping Jack	Fred Fanshaw	20:05:23	0:49:48	3
4	3561	985	Rocket Man	Garry Spaceman	20:02:53	0:53:41	4
5	145	922	Sun Ray	Helios Thalik	20:01:52	0:56:15	5
6	7534	944	Razor Sharp	Barry Barber	20:03:50	0:57:02	6
DNC	234	820	Yippeeeee!	Alan Acrobat			12
DNC	8845	1340	Topside	Terry Taylor			12
DNC	8945	1112	Jimminy Cricket	Jim James			12
DNC	98765	1091	Swallowtail	Pete Swallow			12

Results last updated on 14/03/2016 at 09:28

Race officer was Harry Nononsense
Wind speed was 10 to 15 kts, direction W

Figure 11. Report of Dinghy handicap results

You should now have a good understanding of how the program works. The next chapter shows how to set it up to your club's requirements.



CHAPTER 2 – SETTING UP FOR YOUR CLUB

There are six stages to setting up the program for your club:

- Set a password to protect the administrative data (boat register, handicaps, race schedule and tandem series);
- Make a new HAL file and store it somewhere on your computer;
- Set up the racing classes;
- Set up the register of boats;
- Set up the schedule of races;
- Set up any tandem series.

Set a password

It is best not to allow all club members to change their or other people's details or to reschedule races. Chaos lies that way. You need to protect the data with a password.

Log in as the administrator. Either follow the password reminder or click on *Setup*, then *Change password* and type in a suitable word. **Do not forget to write your password down in a safe place.** If you forget it there is a way to retrieve it, but it involves contacting the publisher of the program via the web site for details.

Make a new file

Use the *File* menu to open a new HAL data file. Put this anywhere on your computer's hard disc. It could also be on a network drive, according to your local policy. This is where your results will be stored, so it is important to keep it safe. It should be one of the things you back up regularly.

You do not have to put all your results in one file, but it makes sense to keep all regular racing together in one file for a season. A good policy is to have a file with all data for the entire season of club races, but to open new files for special events such as championships or open meetings.

Set up the racing classes

Note that the term "class" in this context does not refer to a type of boat, such as a Laser or a J80, it refers to a fleet of boats that race together. In one-design racing this amounts to the same thing, but in handicap racing there will be boats of many types racing against each other in a class.

Note also that each boat may be a member of several classes. A Laser may be a member of the Laser Class when it races against other Lasers and of the All-In Handicap Class when it races in a menagerie. The Laser Class will be a level-rating class and the All-In Handicap Class will use a handicap scheme such as Portsmouth Yardstick.

First decide what classes your club needs. Appendix B gives guidance on how to do this. You can have as many classes as you wish. Each boat can be a member of any number of them. The guiding principle is that each race must be for boats in one class. If several races are scheduled simultaneously, they must be for classes that divide the fleet unambiguously. That is, there must be no overlap in membership of the classes that race on any particular occasion. (The exception to this rule is for tandem series.)

For instance, if your club has a menagerie dinghy fleet that contains a number of Lasers, you might sometimes race them all together on handicap and sometimes race without the Lasers, allowing Lasers to have their own level race. To organise this in HAL, you would need to set up three classes, which might have the following names: All Dinghies, Non-Laser Dinghies and Lasers. Any dinghy series



would be for one of these classes. On any occasion you would either schedule one race for All Dinghies, or a race for Non-Laser Dinghies and separate race for Lasers. Each dinghy that was not a Laser would be a member of the All Dinghy class and of the Non-Laser Dinghy class. Each Laser would be a member of the All Dinghy class and of the Laser class.

Once you know what classes you want, click on *Class Register* (Figure 12). Add a new class (*Classes menu / New class*) and give it the name of your first class. Put in the flag that you use for this class's races, any notes about what the class is used for and set the type of handicap or level rating.

Create extra classes by using *Classes menu* as required.

Various menu buttons allow you to print⁷ details of your racing classes. You can:

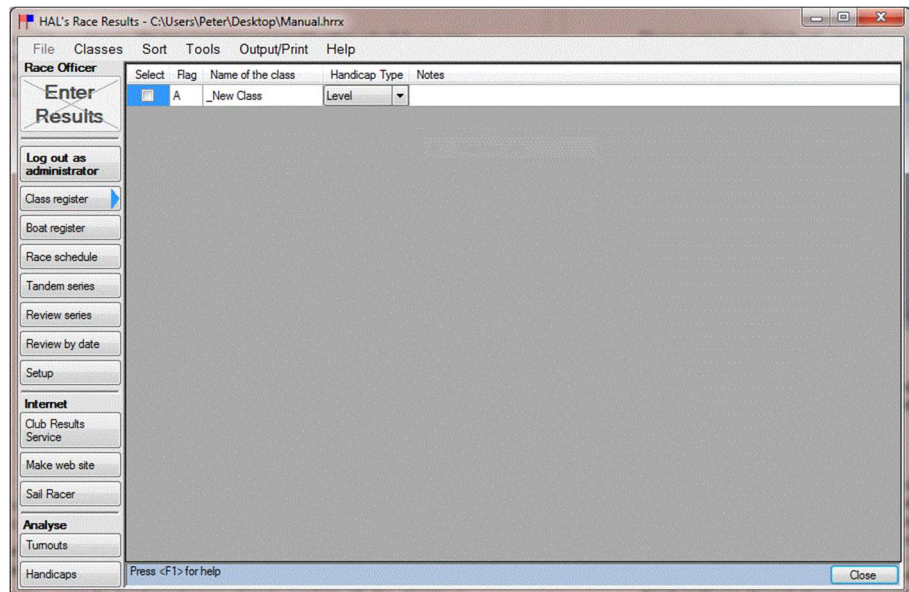


Figure 12. The Class Register

- Print a list of classes.
- Print a list of boats in a class, by first selecting the class and then printing. Note that there will be nothing in this list at the moment as you have not entered any boats yet.
- Print a cross-tab report of all the boats in several classes, by selecting more than one class.
- If this is a handicap class, print the handicap history of each boat.

Tip: click the header of the *Select* column to select all the classes. This works in several of the tables in the program.

Click *Close* when you have put in all classes.

Set up the boat register

Click on *Boat register* (Figure 13) and add a boat using the *Boats / New* menu item. Fill in the sail number, which can either be a pure number or can include other characters such as a country code. Next put in the owner's name (this is automatically copied to the helm field, but it can be over-written if necessary) and other details, as required.

If you include email addresses, you can send emails to all the boats in a class - to announce a change of sailing instructions, for instance – and you can use HAL's Club Results Service to email results automatically after each race. You can include more than one email address for each boat by separating them with semi-colons (;).

⁷ Whenever you print a document, you can also make the same document into an Excel spreadsheet or a web page (HTML file) using the items in the *Output/Print* menu.



Having put in the details of the boat, you must allocate it to at least one class if it is to participate in any races. Click to choose the classes on the right-hand part of the screen. Add the boat to all the classes it may race with by clicking the *Member* box.

Put in details of the next boat on your club's register and add it to all classes for which it is eligible. Repeat for all your boats.

Other menu buttons allow you to delete boats from the register and to limit the list of boats displayed on the screen to either one type of boat (e.g. Fireflies) or to one racing class (e.g. Cruisers).

Setting handicaps

If the boat is to compete in handicap races, you need to set the boat's handicap in each non-level class. Note that the handicap can vary from one class to another for the same boat, since many clubs use their own handicap numbers when racing with known boats, but revert to standard handicaps when racing with boats from elsewhere. Also handicaps can vary over time. You might decide half-way through the season to vary a boat's handicap because it seems unfairly generous, or because the boat seems to do worse on handicap than expected. Note what it says about varying handicaps within a series, however, using the *Handicap can vary* switch in the section on the race schedule below.

If the class is a RYA_PY, NHC or Small Catamaran Scheme one, the program will show the handicap in green if it agrees with the published data and in red if it does not.⁸ You can force agreement with the standard handicaps by using the Tools menu.

The program can produce a very useful report to help sort out your classes called the Boat and Class Crosstab Report, it is accessed from the *Print* menu in the *Class Register* once at least two classes have been selected. Use the *Print/Boats in these classes* menu item. It shows a table with boats down the left and a column for each class. If the boat is a member of that class it shows its handicap (or level) in the appropriate column and gives the total number of boats in each class at the bottom of the column.

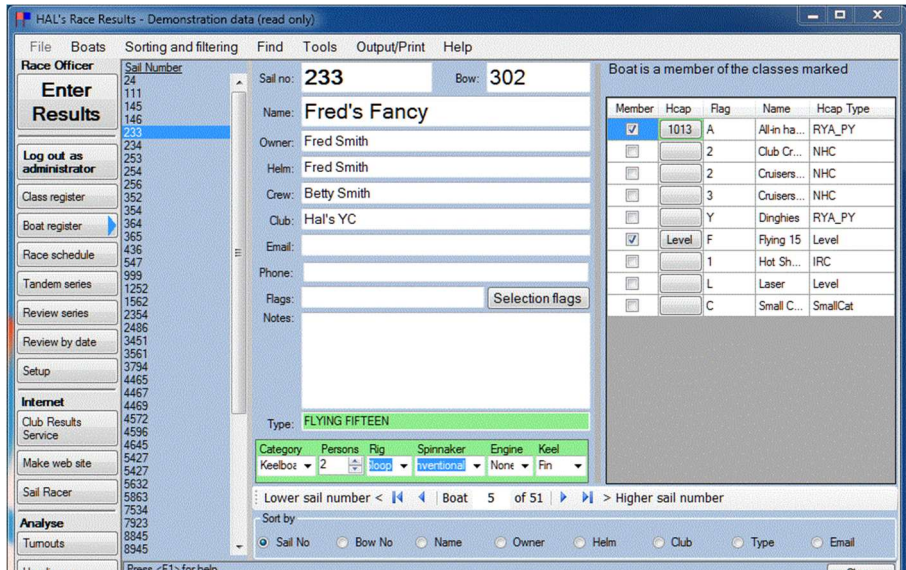


Figure 13. The Boat Register

Tip. There are a couple of ways to speed the process of boat entry. First, if you have several similar boats, try using the *New boat of same type in same classes* menu item. Secondly, if you have several dissimilar boats, but ones that race together in a handicap class, try using the *New boat in same classes* menu item. You can also read them from a spreadsheet (see below).

Tip. If you wish to use the information about standard handicaps built into the program, it is important to get the type of boat correct. As you begin to type information into the *Type* field, a list of known types will appear. If your boat is one of them, choose it to get all the other information automatically.

⁸ You can edit the list of standard boat types using a separate program. See Appendix D.



Progressive handicaps

The National Handicap scheme for Cruisers uses a form of progressive handicapping laid down by the RYA, see Appendix E.

Reading boats from an Excel spreadsheet or another HAL file

If you have a list of boats on an Excel spreadsheet, or on another HAL's Race Results file, you can read in boats directly. Open the *Boat* menu and click *Import*. You will be asked to navigate to the file and then asked which class you wish the boats to be members of, if any. HAL will read the sail numbers and any of the following details that are in the spreadsheet or HAL file: bow number, boat name, boat type, owner name, helm name, crew name, club name and handicap.

If the data comes from a spreadsheet, the values must be somewhere in columns 1 to 26 and the first row must contain the names of the types of data. The format of the handicap must correspond to the type of handicap applicable to the class the boats are going to be in. Thus if it is a Portsmouth Yardstick class, the program will expect numbers between 333 and 2500, whereas if it is an IRC class the program will expect numbers between 0.4 and 3.0. The following example (Figure 14) shows the types of data that can be entered into a Portsmouth Yardstick class. The top row in the table must be in row 1 of the spreadsheet. Only the sail number is compulsory, all the other data is optional.

	A	B	C	D	E	F	G
1	Sail No	Name	Type	Owner	Helm	Crew	Hcap
2	1	Egomaniac	One-off	Edgar Ego	Edgar Ego	Alter Ego	1120
3	24	Wagoner	WESTERLY CENTAUR	Wally Williams	Wally Williams	Wendy Wallace	1207
4	253	Husting Harry	HUSTLER SJ30	Harry Hassleblad	Harry Hasselblad	Jenny Franks	937
5	352	Gently Does It	WESTERLY CENTAUR	Harry Potter	Harry Potter	Daisy Potter	1207
6	1252	Marina Monster	RUFFIAN 23	Lenny Lazy	Lenny Lazy	Laura Laszy	1060

Figure 14. Spreadsheet layout to import boats (showing the Excel column and row headings)

Sorting and filtering the Boat Register

When you first bring it up, the Boat Register is sorted by sail number and shows sail numbers in its index on the left-hand side. You can change to sorting by bow number, name of boat, owner, helm, club, type or email.

You can also filter the list to show only boats that are in a particular class, or set of classes, only those boats that are not in any class, those boats that have no results and those boats of unknown type.

Boat Register Tools

There are a number of tools that you can use in the Boat Register. If you first filter to show only boats that are not in any class, or have no results, there is a tool to remove them.

There is also a tool to help determine whether there is a standard type for each boat. It is advisable to run this tool before trying to set any standard handicaps using either of the following tools.

There is a tool that runs through all the boats and tries to add a standard handicap if there is one and there is a tool that will add standard handicaps one boat at a time.



Setting up the race schedule

Click *Race Schedule* to open a screen similar to Figure 15. Highlight the class you want to use for your first races and use the *Series / New series* menu to make a series. Alternatively, you can right-click the class to bring up a popup menu with *New series* on it.

Next add races to the series as necessary. This can be done from the *Races* menu either by clicking *New Race on Date...* or if the next race is a number of hours after the previous one, or exactly one day or one week after the previous one, then by clicking one of these buttons. Alternatively, you can right-click a series and do the same thing from the popup menu.

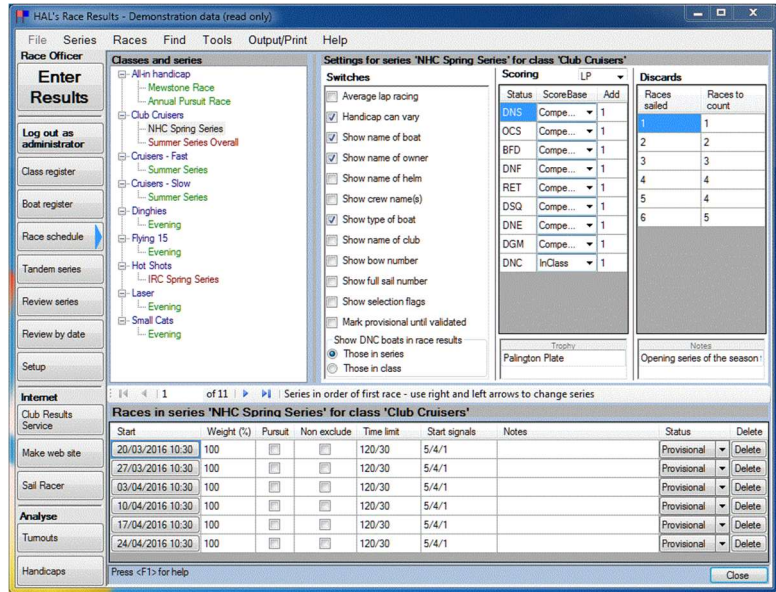


Figure 15. The Race Schedule

Note: the program puts all races into series. Single races are series with only one race. Each series is for a particular class. See Appendix B for more guidance on this.

If the class is a handicap one, a race can be run as a pursuit race, where boats start at staggered times according to their handicaps. If a race is to be run in this way, click the *pursuit* option check box. This ensures that the results are treated correctly when the race officer puts them in and it also allows you to print a list of the start times.

Tip. If you set up a pursuit race you can produce a document showing the start times for all the boats. Right-clicking the race in question will bring up a screen showing the desired finish time, length of race (for the scratch boat) and the starting interval.

Continue adding series for the various classes. If you normally conduct races for several classes on each occasion that you race, it is easiest to go to the next class that will be racing on the same days. Use the *Copy this series to another class* menu item and specify how many minutes after (or before) the start of the other class each start for the new class will be.

Continue adding series until all the races for each class in your club's programme are in the computer. At this stage it is useful to print the **Schedule of Races** with the *Print / All races* menu to compare with what is in the notice of race or your club's handbook, to be sure things are set up correctly.

Setting the Series Switches

The way each series is handled depends on a set of switches, shown in the middle of Figure 15. The first switch is *Average lap racing*. Average lap racing consists, essentially, of allowing boats of different speeds to do different numbers of laps. Allowance is made for the different distances covered when working out the results. This is only relevant to handicap races and is especially useful in classes with a wide variation in boat speeds, since fast and slow boats can compete together without an enormous difference in finish times. If this switch is set the

Tip. To avoid having to change the series switches, scoring system and discards for each of your series, set up the defaults before you make new series. You can do this in *Setup / New series and race settings*. If your club has a consistent policy it will save much effort.



race officer will not only be asked for the finishing time of each boat but also for the number of laps it has done. The results will be worked out in accordance with the RYA's recommendations⁹.

The next switch is *Handicap can vary*, which controls whether the handicap of each boat is allowed to be varied during the series, or whether it is to be fixed for the series. If you wish, you can check the *Handicap can vary* option so that modifications made to a boat's handicap take effect immediately. If you do not allow handicaps to vary during a series, the handicap applied to each boat in each race will be that applicable at the start of the first race in the series.

Other series switches control what is shown on printouts, web pages and spreadsheets. You can choose whether or not to show the name of the boat, owner, helm, crew, type of boat, club, bow number and any selection flags. Set *Show full sail number* to show the entire sail number, including any letters or country codes, leave it unchecked to show only the number part. If you check *Mark provisional until validated* each output will be headed "Provisional" until you validate the race. This is useful if there are protests outstanding.

The final switches control whether boats that did not take part in the race (DNC) are shown. If you set it to *Those in class*, a result will be output for each boat in the class, even if it is only DNC and the boat has never participated in the series. This is what you would probably want for a championship. If you check the *Those in series* box, a result will be output for all boats that have at least one result in the series, i.e., those that have taken part in at least one race in the series. This is the behaviour you would probably want for club racing, where there may be many boats in the class that do not participate in a particular series.

Setting the race switches

In addition to the series switches that control the behaviour across an entire series, there are some switches and controls for individual races. These can be seen in the table of races at the bottom of the Race Schedule screen.

You can set the *Weight* of the race in the scoring. Normally this is 100% for all races, however you can alter it for one or more races if desired. Note that if it is set to anything other than 100% you must also make that race non-excludable.

The next switch is *Pursuit*. If this is set the race is to be run as a pursuit race. Boats start at intervals so that, in theory according to their handicaps, they will all finish at the same time. This is only applicable to handicap races. If you set up a pursuit race, you can right-click the race to bring up a screen that allows you to produce a set of start times for each boat in the class.

The next switch is *Non Exclude*. If this is set, the race will not be excluded (discarded) in the scoring of the series, no matter what the score of each boat in that race may be. Note that if a race is weighted anything other than 100% it must also be non-excludable.

The final two controls are to set the time limit for the race and the start sequence. The time limit shows the number of minutes from the start allowed for the first boat, while the second figure is the number of minutes allowed after the first boat for all the others, if that is later than the original time limit. The program does not enforce these limits, but will flash up a warning to the race officer entering results if they contravene this rule.

The start sequence is used to produce the start sequence for a set of races, in terms of which flags need to be hoisted and lowered when. This can be done from the race officer's *Choose Races* screen.

⁹ Royal Yachting Association, publication YR2.



Set up the Scoring System

The next thing you need to decide is the scoring system for the series. The default is to use the **Low Point** system, with points allocated as for a longer series. You can change this to the **Bonus Point** system, or the old $\frac{3}{4}$ point for first scheme (shown as **P75**) or the **RORC High-Point** system.

RORC scoring is new for 2012

Using the *Tools* menu, the scores for various types of non-finishers can be set either to the suggested allocation of points for use in a regatta or for use in a longer series. These are defined in RRS Annex A. You can also make up a system to your specific requirements. Many clubs like to vary the number of points given to boats that do not finish a race. You could give fewer points to a boat that started but did not finish (Retired - DNF) than to one that is disqualified after a protest (DSQ) for instance. The program allows you to set these options in a flexible way. For each type of non-finisher you can set the number of points related to either the number of competitors¹⁰ in that race, or the number of finishers, or the number in the class, or the number of boats that took part in any race in the series. You could set the points for DSQ to be **number of competitors + 3** for instance. You can also set the points to be an absolute value by setting them relative to zero, zero + 50 for example.

Setting up the discards (excluded scores in a series)

You need to set the table of discards for the series. This is done using the table on the right of the screen. There is an entry for each possible number of races sailed in the series. Thus if the series is set to have six races, there are six lines in the table. Against each number of races sailed you set the number to count.

To take an example, the notice of race might say there are to be six races and boats are to receive the total of their points in each race as their series score, except that if at least five races have been completed they may exclude their worst score. You would set this up as follows:

Races sailed	Races to count	Comment
1	1	Count all races
2	2	Count all races
3	3	Count all races
4	4	Count all races
5	4	Discard kicks in. Worst score excluded
6	5	Worst score excluded

Setting up tandem series

Tandem series are dummy series that take their results from other series. Examples of their use are:

- To recalculate the results of a series using a different set of handicaps, or even a different handicap system. You might have a series for an IRC class, but want to see what the results would be under a local handicap scheme, for instance.

¹⁰ Note that the number of competitors is the number of boats scored anything other than DNC. It includes boats scored DNS.



HAL's Race Results Users' Manual

- To pick out a subset of races for a particular trophy. You might have a season-long overall Points Cup, for instance, but want to pick out the first six races as a Spring Cup.
- To run races as heats for different classes. You could have a start for slower boats at 10:00 and a start for faster boats at 10:10, both using the same course. Each class would have its own results, but you could use a tandem series to produce overall results as well, using each boat's elapsed time and handicap, even though they did not start at the same time.

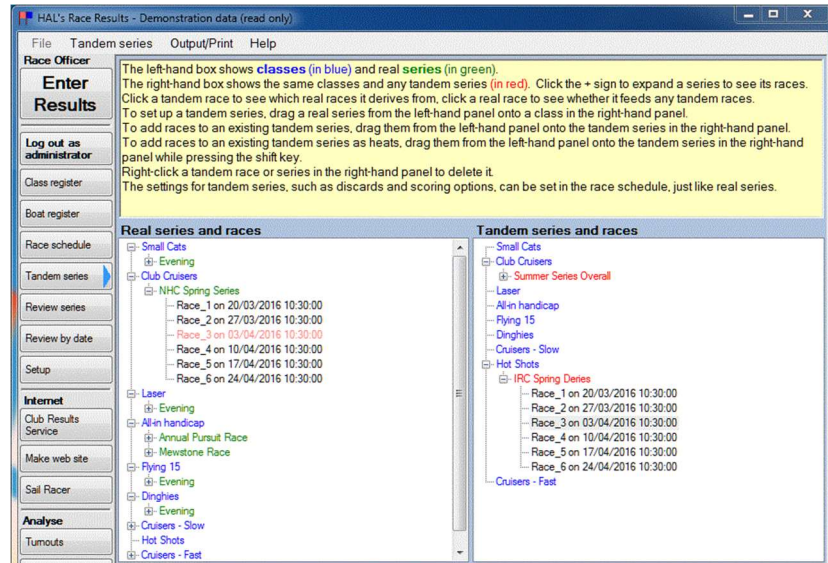


Figure 16. Tandem Series and their relation to Real Series

Click *Tandem series* on the left of the screen (Figure 16). You will see a list of all the classes and (real) series on the left of the screen, with the classes repeated on the right. To set up a tandem series, highlight it on the left and drag it to a class on the right. The class for the tandem series can be the same as the one on the left, if you want just to pick out a subset of races. To pick out the subset of races, delete the races you do not want from the tandem series.

Or you can drag a series from one class on the left to a different class on the right. Note that you cannot drag a series from a level class to a handicap one, or vice versa, but you can drag series between two types of handicap class.

To set up heats, drag the first series from the real class to the tandem class. Then drag races from the second series to the tandem series while pressing the shift key.

At any point you can highlight a tandem race on the right of the screen to see which race, or races, it derives from on the left. You can also highlight a real race on the left to see whether it feeds into any tandem races on the right



CHAPTER 3 – ENTERING RESULTS

There are five steps to the process.

- Enter the race officer's name and the wind conditions.
- Choose the races.
- Enter the results.
- Review the results.
- Print the results and, if desired, upload them to the Internet.

Note that a synopsis of these steps is given in Appendix A, in a form that could be placed beside your computer for race officers to consult. They are available as a Microsoft Word document so that you can customise them for your own club. The HAL folder in the *Start* menu on your computer contains a link to enable you to open them in Word.

Details of the race officer and wind

After clicking *Enter Results* you are presented with the screen at Figure 17. It is not essential to fill in these details, but it helps to resolve any queries if the name of the race officer is known and it helps with the analysis of results if you know the wind conditions.

Fill in the race officer's name and click an approximate direction for the wind. Use the up and down arrows on the min and max boxes to set the wind speed.

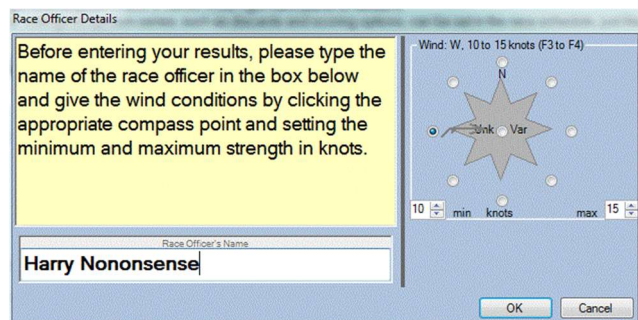


Figure 17. Race Officer and Wind Details

Choosing the races

Click *OK* on the screen shown in Figure 17 to bring up the screen shown in Figure 18 where you choose the races. Use the calendar to find the date your races were scheduled for. (This will already be in view if you are putting results in on the same day as the race was scheduled.) Select the race(s) you have results for.

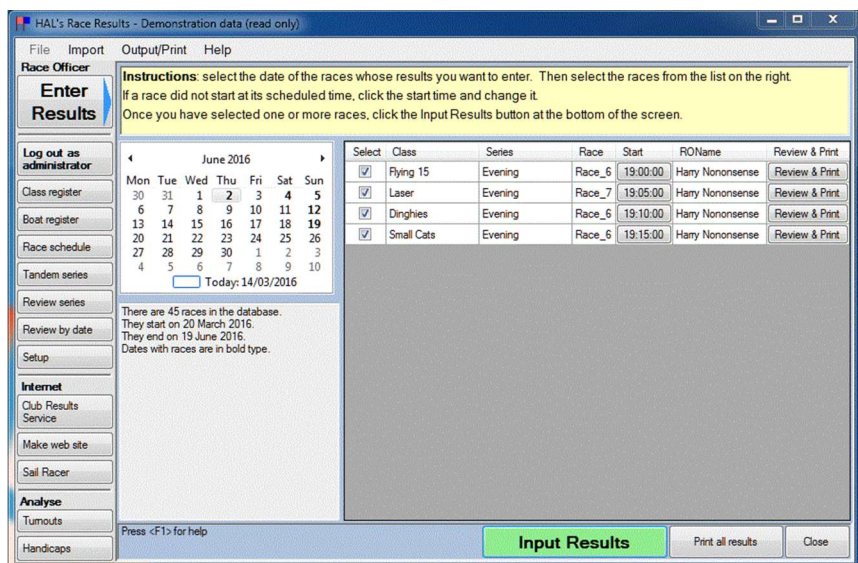


Figure 18. Choose races before entering results

If any of the races did not start at the scheduled time, click the time in the Start column and put in the time the race actually started. This will make no difference to the outcome of level races, apart from ensuring that the start time is printed correctly on result sheets, but it will affect the calculation of elapsed and corrected times for handicap races.

Once you have chosen the races, the large green button marked *Input Results* appears.

Tip. If you have the results of races for several classes, it is easiest to enter all of them in the order in which the boats crossed the finish line, without first sorting them into classes. The computer knows which class each boat is in.



Entering results manually

Click *Input Results* on the choose-race screen shown in Figure 18 to bring up the input screen shown in Figure 19. This is where you input the results, one boat at a time.

Start with the first boat to cross the finish line. First you need to find it in the list. You can do this by scrolling down and clicking it in the list, or by typing into the box above the list.

You can select a boat by typing its sail number, or bow number, or name, or the name of the helm, depending on the method you choose in the option buttons at the bottom of the screen. Once you have typed in enough to unambiguously select the boat, a message appear that the boat has been found and one of the result input table appears on the right of the screen, either for a level result (Figure 20) or a handicap result (Figure 21).

If the boat finished correctly and is in a level class, the place field will be filled in automatically with the next place for that race.

If the boat is in a handicap class, overwrite the finish times (using 24 hour clock) into the three boxes (Figure 21). Note that the hour will often be filled in correctly already. Move between the boxes using arrow on your keyboard, if you need to. If the race went beyond midnight on the day of the start, the correct date for the finish should be selected from the calendar.

Click **OK**. The system will return to the previous screen to select the next boat.

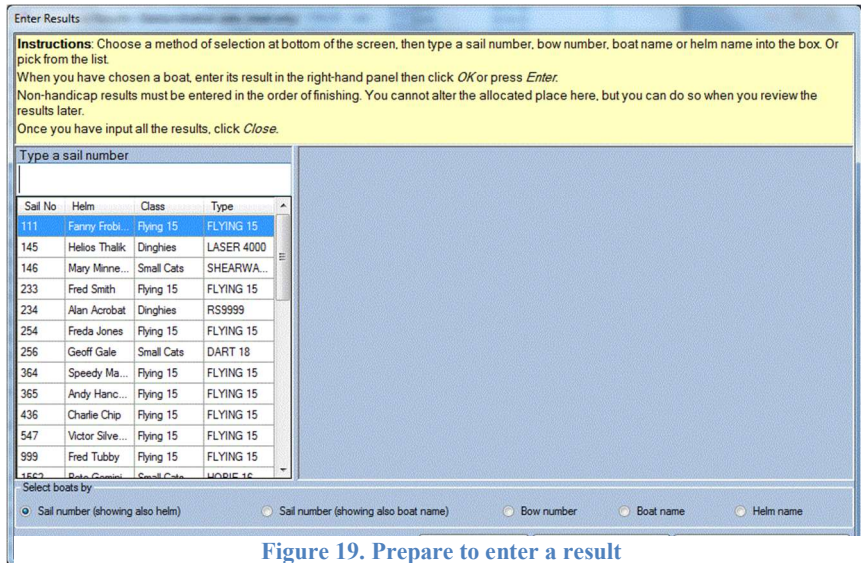


Figure 19. Prepare to enter a result

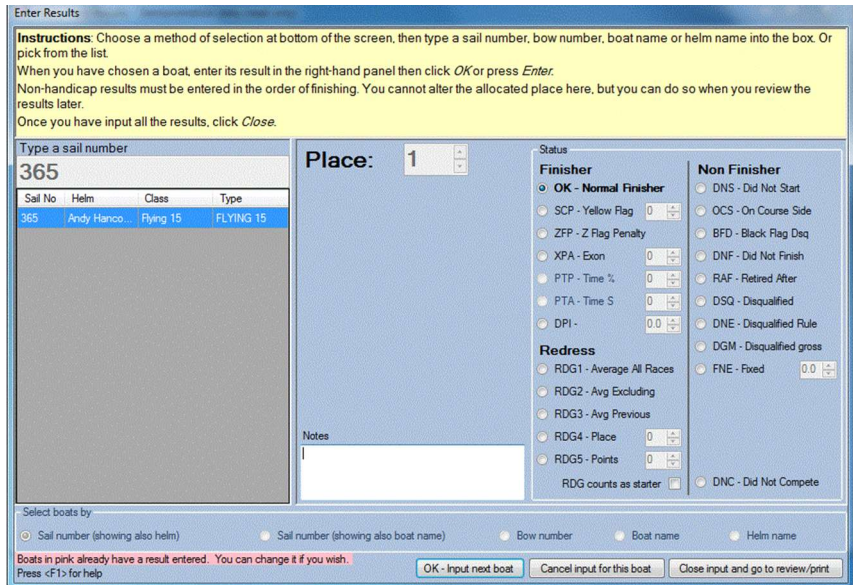


Figure 20. Enter a level result.

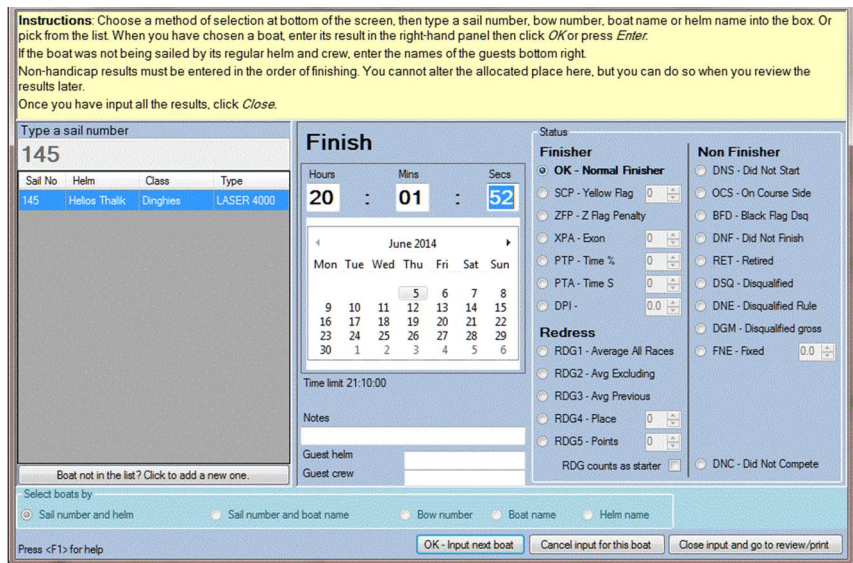


Figure 21. Enter a handicap result



Continue inputting boats in the order in which they crossed the finish line, irrespective of class, until they have all been done.

Boats that did not finish correctly or are penalised

If a boat did not finish correctly or needs to be penalised in some way, then its status should be selected from the list on the right. There is no need to enter a time or a place, unless the status is one of the finishing codes: OK, SCP, ZFP, XPA, PTP, PTA or DPI.

The available result status codes are shown in Table 2, which is derived from RRS 2013-2016, Appendix A, where they are referred to as “Scoring Abbreviations”.

Status code	Meaning
Finishing codes that need a place or a time	
OK	Normal finisher
SCP	Scoring penalty under rule 44.3(a). Also known as a yellow-flag penalty. The normal penalty is 20% of the number of boats entered place penalty. This can be varied, if the sailing instructions state another penalty or if the boat has to accumulate more than one scoring penalty.
ZFP	20% penalty under rule 30.2
XPA	Exoneration penalty
PTP	Percentage time penalty
PTA	Absolute time penalty
DPI	Discretionary penalty for breaches of administrative aspects of the sailing instructions, in accordance with RRS L16.6
Non-finishing codes where no place or time is needed	
DNS	Did not start (other than DNC and OCS).
OCS	On the course side of the starting line at her starting signal and failed to start, or broke rule 30.1 (Commonly known as “over the line”.)
BFD	Disqualification under rule 30.3 (black flag rule at the start).
DNF	Did not finish. (Commonly known as “retired during the race”.)
RET	Retired.
DSQ	Disqualification. (Usually as a result of a protest hearing or a jury decision.)
DNE	Disqualification (other than DGM) not excludable under rule 90.3(b). (This result cannot be excluded from series scores (discarded).)
DGM	Disqualification for gross misconduct not excludable under rule 90.3(b). (This result cannot be excluded from series scores (discarded).)
FNE	Fixed, non-excludable. A fixed score that must be included in the series score.



Status code	Meaning
RDG1 ¹¹	Redress option 1. RRS Rule A10(a). Average points option 1. This is best suited to a regatta and averages all scores except for the race(s) in question and any scores that are themselves RDG averages. The value of the redress is updated as and when further results are added. The series score takes into account any discards applicable at the time of calculation.
RDG2	Redress option 2. Average points option 2. Similar to RDG1, but excludes DNC scores up to the maximum allowed by the discard rules and any scores that are themselves RDG averages. In a long series a boat may decide not to compete in some races, accepting that she would get a DNC score but expecting it to be later discarded. This version (as recommended by the RYA) averages all a boat's series scores, except for the race(s) in question and except for any DNC score that does not exceed the number of scores that can be discarded in the series. The value of the redress is updated as and when further results are added. Series score then takes account of any discards applicable at the time of calculation. When the sailing instructions state that a competitor will receive average points as compensation for not being able to compete because of Officer of the Day or other race committee duties, it is recommended that this method is used to calculate the points to be awarded.
RDG3	Redress option 3. Average points option 3. RRS Rule A10(b). This averages a boat's points in all the races before the race in question, with no discards, but excluding any scores that are themselves RDG averages. It is updated if any of the results from races before the race in question are altered. Series score then takes account of any discards applicable at the time of calculation.
RDG4 ¹²	Redress option 4. RRS Rule A10(c). Points based on the position of the boat in the race at the time of the incident justifying redress. Once input it is not altered when other results are input or altered.
RDG5	Redress option 5. Some other award of redress, input as a number of points. If a decimal value is input the program rounds to the nearest tenth of a point (0.05 rounded upwards). Once input it is not altered when other results are input or altered. This could sometimes be appropriate in place of RDG4. For example, a boat is lying tenth at the time of the incident. Five of the boats ahead of her at that time are subsequently disqualified for sailing the wrong course. 10 points might be inadequate redress if the boats in 9 th and 11 th place at the time of the incident now score in 4 th and 5 th .

Table 2 Result status codes

Boats that are missing from the register

If the race officer finds that a boat is missing from the list, he can add it on a provisional basis. The boat may be missing for one of two reasons: either it is in the Boat Register but not a member of one of the classes the race officer has selected, or it is not in the Boat Register at all. In either case, he can

¹¹ I am grateful to Trevor Lewis, Chairman of the RYA Racing Rules Committee, for the definitions of the various categories of redress (RDG1 to RDG5)

¹² N.B., if a boat is allocated a place as a redress option, it is very important to use RDG4 to insert it into the results, not to put it in as a finisher in that place. If you put it in as a finisher, all the boats below that place in the race will be pushed down, which is not what is required. Neither should you put the boat in as equal to the boat that finished in the required place, or that boat will be given a poorer score because it is now equal, not occupying that place in its own right, and all the boat further down will be pushed down a place.



add it by clicking the button below the list of boats. Boats added in this way can be selected and have results entered for them. Their results will appear on all outputs. However they are marked as having been added provisionally and the administrator will be asked to verify the details when they next log in.

Once all the results have been entered, click *Close input and go to review/print*.

Entering results from a spreadsheet

If the setup switch *Allow users to import results* is set on the *Setup* screen, you can read results from a spreadsheet. (This is typically used where a club has an automated timing system that records finish times on a spreadsheet.) Data must be in an Excel spreadsheet in the form of sail numbers and times. The first row must contain labels for the columns, one called Sail Numbers and one called Finish. The data must be somewhere within the first 25 columns of the spreadsheet. Times are assumed to be on the same day as the start of the race and must be in 24-hour format with colons as separators, such as 13:34:45. The program will read data from the spreadsheet until it discovers a row that has no recognisable sail number, when it will stop. You can also include a column headed Status, if desired, which can contain the finish status of each boat (OK, DNF, OCS, etc.). It assumes that all results have status OK, unless otherwise notified in the Status column. You can also replace the column called Finish with one called Elapsed, in which case the program will look for elapsed times (stopwatch times) rather than finish times by the clock. Elapsed times can either be in 24 hour format as hh:mm:ss or a total number of seconds. If the series uses average lap racing, you need a column headed *Laps* as well to indicate how many rounds of the course each boat has completed.

	A	B	C
1	Sail No	Finish	Status
2	7923	20:12:41	
3	5632	20:31:50	
4	8845	20:24:50	
5	98765	20:12:55	
6	234	19:56:50	
7	7534	20:07:29	
8	3561		OCS

Figure 23. Import results from a spreadsheet

Checking and printing results

Click *Review and print* on the screen where you chose the races (Figure 18) to see the results you have entered.

If the race was for a level class you will see a screen similar to Figure 24. You can move boats up or down by clicking the arrows. You can make two (or more) boats tie for a place by highlighting their results and right-clicking to show a pop-up menu including the option to make them tie. If you need to alter a boat's status, you can do so by clicking its *Status* button. You can also delete a boat from the results with the *Delete* button. Note that the boat may not disappear from the list, but will be allocated a status of DNC.

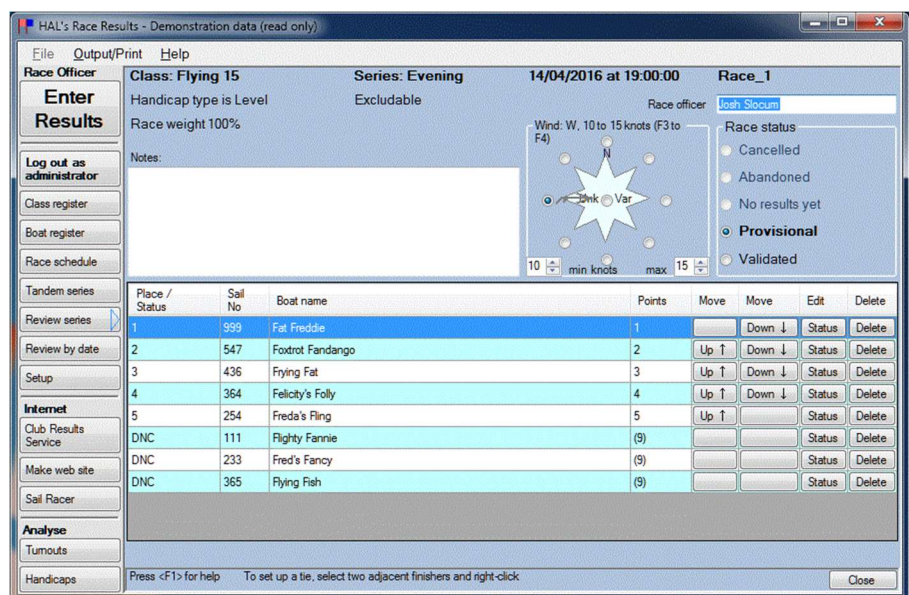


Figure 24. Review the results of a level race



HAL's Race Results Users' Manual

If the race was for a handicap class you will see a screen similar to Figure 25. You can correct any errors by clicking *Edit*. Any results that should not be there can be deleted. You can use the *Notes* field to put in details such as the course, or any observations that might be useful to a person reviewing the results later.

You can make print outs of the results suitable for a notice board from the *Output/Print* menu.

The screenshot shows the HAL's Race Results software interface. The window title is "HAL's Race Results - Demonstration data (read only)". The interface is divided into several sections:

- Header:** Class: Small Cats, Series: Evening, Date: 14/04/2016 at 19:15:00, Race: Race_1. Race officer: Josh Slocum.
- Left Sidebar:** Contains buttons for "Enter Results", "Log out as administrator", "Class register", "Boat register", "Race schedule", "Tandem series", "Review series", "Review by date", "Setup", "Internet", "Club Results Service", "Make web site", "Sail Racer", "Analyse", "Turnouts", and "Handicaps".
- Main Content Area:**
 - Wind: W, 10 to 15 knots (F3 to F4)
 - Notes field (empty)
 - Wind direction indicator (starburst)
 - Buttons for "min knots" (10) and "max" (15)
 - Table of race results:
- Right Panel:** Race status options: Cancelled, Abandoned, No results yet, Provisional, Validated.

Place / Status	Sail No	Boat name	Hcap	Finish	Elapsed	Corrected	Points	Edit	Delete
1	256	Stormy Weather	1.221	20:14:58	0:59:58	0:49:07	1	Edit	Delete
2	15689	Collaboration	1.221	20:15:25	1:00:25	0:49:29	2	Edit	Delete
3	200247	Ying Yang	1.221	20:16:23	1:01:23	0:50:16	3	Edit	Delete
OCS	198745	Schizzo	1.221				5	Edit	Delete
DNC	146	Twin Cities	1.190				(9)	Edit	Delete
DNC	1562	Heavenly Twins	1.160				(9)	Edit	Delete
DNC	4596	Shear Bliss	1.190				(9)	Edit	Delete
DNC	200163	Mini Twin	1.221				(9)	Edit	Delete

Figure 25. Review the results of a handicap race

Appendix C gives some general guidelines for using HAL to score a major regatta or championship.



CHAPTER 4 – ADMINISTERING RESULTS

Once you have logged in as the administrator, you can administer the results in the computer, reviewing them either by series or by date. This allows you to ensure that the results have been entered correctly, to verify them and to make printouts, spreadsheets and pages for web sites.

Review by series

Clicking *Review by series* brings up a screen, similar to the one shown in Figure 26. To review the results of an entire series, click the *Review* button to bring up a screen similar to Figure 27.

You can output the series results from the *Output/Print* menu.

To see the results of an individual race, click the *review* button at the top of its column.

When an administrator reviews a race, the race status can be set to **Validated**, which means that no race officer can alter it. If there are no results for the race, its status can be set to **Abandoned** or **Cancelled**.

Select	Class	Series	First start	Last start	Sailed	Cancelled	To be sailed	Review
<input type="checkbox"/>	Club Cruisers	NHC Spring Series	20/03/2016 10:30:00	24/04/2016 10:30:00	6	0	0	Review
<input type="checkbox"/>	Hot Shots	IRC Spring Series &...	20/03/2016 10:30:00	24/04/2016 10:30:00	6	0	0	Review
<input type="checkbox"/>	Flying 15	Evening	14/04/2016 19:00:00	02/06/2016 19:00:00	6	0	0	Review
<input type="checkbox"/>	Laser	Evening	14/04/2016 19:05:00	02/06/2016 19:05:00	7	0	0	Review
<input type="checkbox"/>	Dinghies	Evening	14/04/2016 19:10:00	02/06/2016 19:10:00	6	0	0	Review
<input type="checkbox"/>	Small Cats	Evening	14/04/2016 19:15:00	02/06/2016 19:15:00	6	0	0	Review
<input type="checkbox"/>	Cruisers - Slow	Summer Series	01/05/2016 10:30:00	12/06/2016 10:30:00	4	0	2	Review
<input type="checkbox"/>	Club Cruisers	Summer Series Ove...	01/05/2016 10:30:00	12/06/2016 10:30:00	4	0	2	Review
<input type="checkbox"/>	Cruisers - Fast	Summer Series	01/05/2016 10:40:00	12/06/2016 10:40:00	4	0	2	Review
<input type="checkbox"/>	All-in handicap	Mewstone Race	04/06/2016 10:00:00		0	0	1	Review
<input type="checkbox"/>	All-in handicap	Annual Pursuit Race	19/06/2016 14:00:00		0	0	1	Review

Figure 26. Review the available series

Rank	Sail No	Name	Type	Owner	Hcap	NHC Spring Series				
						Race_1 23Mar	Race_2 30Mar	Race_3 6Apr	Race_4 13Apr	Race_5 20Apr
1	4469	Nitrogen	SIGMA 38 OOD	Nancy Norton	varies	1	1	5	1	1
2	4572	Side Sa...	SADLER 25	Jenny Jodpur	varies	4	(17/DNC)	3	4	6.6/RD...
3	3794	Balder...	WESTERLY FULMAR Bilge Keel	Jumbo Jeffries	varies	3	3	(10/DNF)	5	2/RDG_4
4	4465	Halogen	SIGMA 33 OD	Henry Anfield	varies	7	(17/DNC)	2	17/DNC	2
5	253	Hustling...	HUSTLER SJ30	Hary Hassleblad	varies	2	(17/DNC)	4/XPA...	3	17/DNC
6	354	Egoma...	One-off	Edgar Ego	varies	8	(17/DNC)	4	7	5
7	24	Wagoner	WESTERLY CORSAIR	Wally Williams	varies	9	7	6	6	6
8	2354	Courte...	CONTESSA 32	Jenny Jenkins	varies	5	(17/DNC)	17/DNC	5/SCP...	3
9	3451	Nicky N...	NICHOLSON 30	Nicholas Fairley	varies	(17/DNC)	2	10/OCS	17/DNC	4
10	4645	Silver T...	Farr 40	Sam Wallet	varies	6	4	(17/DNC)	17/DNC	17/DNC
11	5427	Signfic...	SIGMA 33 OD	Barry bigshot	varies	(17/DNC)	6	10/DNF	17/DNC	17/DNC
12	4467	Oxygen	SIGMA 33 OD	Oliver Oldfield	varies	(17/DNC)	5	17/DNC	17/DNC	17/DNC

Figure 27. Review the overall results of a series



Review by date

If you click *Review by date* you can review the races on a particular date (Figure 28).

Setting race status

There is a quick way to set the status of all the races to Validated or Cancelled. If you decide that the status of all the races up to a certain point in time has been decided and is unlikely to change, click the Validate button against that date to set the status of all the races that have been sailed up to that point to Validated. Click the Cancel button for that date to set the status of all races that have not been sailed to Cancelled.

The screenshot shows a window titled "HAL's Race Results - Demonstration data (read only)". The main area contains a table with the following columns: Date, Race Officer, Races scheduled, Races sailed, Races abandoned or cancelled, Races still to sail, Review, Validate, Cancel, and Print. The table lists various races from March to June 2016. A sidebar on the left contains a menu with options like "Enter Results", "Log out as administrator", "Class register", "Boat register", "Race schedule", "Tandem series", "Review series", "Review by date", "Setup", "Internet", "Club Results Service", "Make web site", "Sail Racer", "Analyse", "Turnouts", and "Handicaps". The "Review by date" option is highlighted in the sidebar.

Date	Race Officer	Races scheduled	Races sailed	Races abandoned or cancelled	Races still to sail	Review	Validate	Cancel	Print
20 March 2016	Billy Nononsense	1	1	0	0	Review	Validate	Cancel	Print
27 March 2016	Henry Potter	1	1	0	0	Review	Validate	Cancel	Print
03 April 2016	Sally Swallow	1	1	0	0	Review	Validate	Cancel	Print
10 April 2016	Sid Perks	1	1	0	0	Review	Validate	Cancel	Print
14 April 2016	Josh Slocum	4	4	0	0	Review	Validate	Cancel	Print
17 April 2016	Freda Jenkins	1	1	0	0	Review	Validate	Cancel	Print
21 April 2016	Geoff Gale	4	4	0	0	Review	Validate	Cancel	Print
24 April 2016	Fat Freddy	1	1	0	0	Review	Validate	Cancel	Print
28 April 2016	Jenny Jodpur	4	4	0	0	Review	Validate	Cancel	Print
01 May 2016	Sam Summer	2	2	0	0	Review	Validate	Cancel	Print
05 May 2016	Gordon Browning	1	1	0	0	Review	Validate	Cancel	Print
08 May 2016	Gordon Gerard	2	2	0	0	Review	Validate	Cancel	Print
12 May 2016	Luke Spacewalker	4	4	0	0	Review	Validate	Cancel	Print
15 May 2016	David Blagby	2	2	0	0	Review	Validate	Cancel	Print
19 May 2016	Vice Commodore	4	4	0	0	Review	Validate	Cancel	Print
22 May 2016	David Brigstock	2	2	0	0	Review	Validate	Cancel	Print
02 June 2016	Harry Nononsense	4	4	0	0	Review	Validate	Cancel	Print
04 June 2016	-	1	0	0	1	Review	Validate	Cancel	Print
05 June 2016	-	2	0	0	2	Review	Validate	Cancel	Print
12 June 2016	-	2	0	0	2	Review	Validate	Cancel	Print

Figure 28. Review by date



CHAPTER 5 – SETUP OPTIONS

The *Setup* screen is where you control the many optional features and discretionary parts of the program. All the options have default values that will be satisfactory for most purposes, except that you cannot use the on-line services until you have set them up here.

General setup options

The first screen to be shown when you click the *Setup* button controls some of the most general features of the program (Figure 29).

The first thing to put in is the *name of your club or organization*. This name will appear on all printouts.

If you plan to use any of the on-line features of the program, including sending emails to boat owners, you need to fill in the *sender's address*. This will appear on all emails sent either to all boats in a class (from the *Class Register*) or to individual boats (from the *Boat Register*) or to those boats that have new results in the *Club Results Service*. The procedure for entering a from address involves the system sending an email to that address with a one-off password. You have to retrieve the password from the email and enter it into a pop-up screen.

Many clubs want to keep an information copy of all emails sent. To do this, fill in the *Copy all emails to these addresses* field with as many email addresses as you wish, separating them with semi-colons (;). All emails sent by the system will then be copied to these addresses provided you check the *copy to officials* box when you send them.

The next item on this screen concerns *stopwatch times*. Some clubs use a stopwatch to time races, rather than an ordinary clock. If this box is checked, the screen to enter a handicap result will ask for elapsed times in hours, minutes and seconds, rather than clock times. Note that if you use a single stop watch for a sequence of several starts, you will have to adjust the times before entering them into the program so that they match the elapsed times in each particular race.

The *Include series points in the results of individual races* check box is used to ensure that printouts of the results of individual races have a final column giving the number of points (accounting for any discards) accumulated by each boat in the series. This avoids having to print out a separate series results page after each individual race.

Set administrator's password allows you to protect the administrative data from alteration by anybody that fires up the program. Experience shows that you need to limit the number of people who can add and remove boats from the register, alter handicaps and schedule races to a bare minimum. Setting the administrator's password allows you to do that.

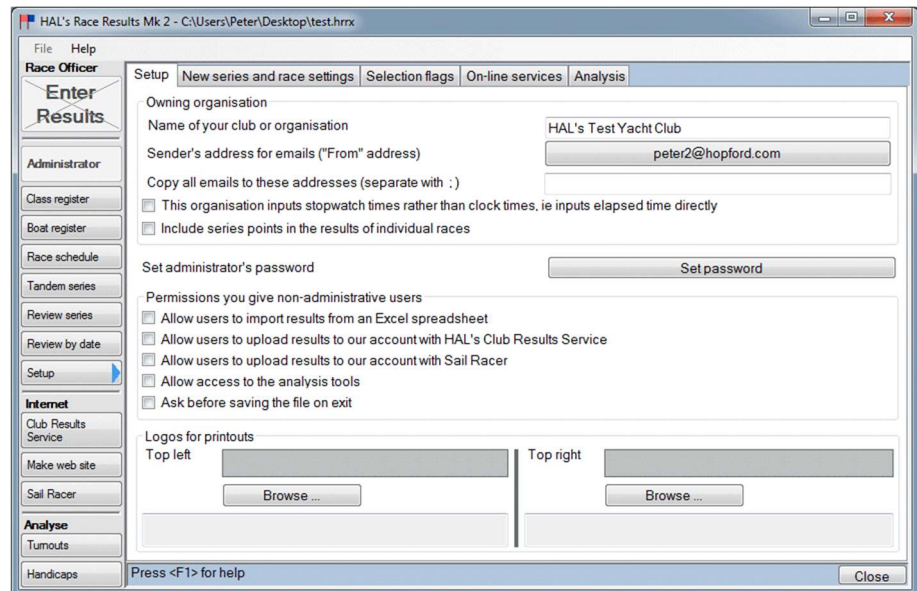


Figure 29. General setup screen

Warning. If you set the administrator's password it is essential to keep a copy safe somewhere.



Normally, the program does not allow access to any of the system without going through the administrator's login except the *Enter Results* section. However, you may wish to allow access to some parts of the program to anybody, without allowing them to alter the vital data contained in the registers and schedule. By checking the appropriate box you can:

- Allow users to import results from an Excel spreadsheet. This allows any user who is entering results to import any sail numbers, and times in the case of handicap results, from a spreadsheet. They can do this as soon as they have chosen the race (or races) the results are for. This feature is typically used in conjunction with some form of automated timer, many of which have the facility to enter times onto a spreadsheet.
- Allow users to upload results to an account with HAL's Club Results Service. Normally you have to log in as administrator to do this, but if your club's policy is to allow anybody to do that you can do so by checking this box. The other aspects of setting up the account with HAL's Club Results Service are in the on-line services page of the *Setup* screen.
- Allow users to upload to our account with Sail Racer. Checking this box allows all users to upload to Sail Racer, similarly to HAL's Club Results Service above.
- Allow access to the analysis tools. Allow all users to analyse turnouts and handicaps. Note that nothing that they do in these sections can alter any of the data, only examine what is already there.
- Ask before saving the file on exit. This check box should not normally be set, as most people want the system to save anything they do when they exit. But if you check this box the system will ask whether to save any changes you have made to the data before closing down.

Logos for printouts. This allows you to specify logos to print on the top left or top right of all printouts (or both). Logos should be in the form of GIF or JPEG files on your computer. Use the *Browse* buttons to locate each file.

New series and race settings

This page of the *Setup* screen (Figure 30) allows you to set defaults for new series and races in the *Race Schedule*. Nothing you do here will affect existing series and races, but the values you put in will be copied to any new ones. The settings are just as described in the *Race Schedule* part of this manual.

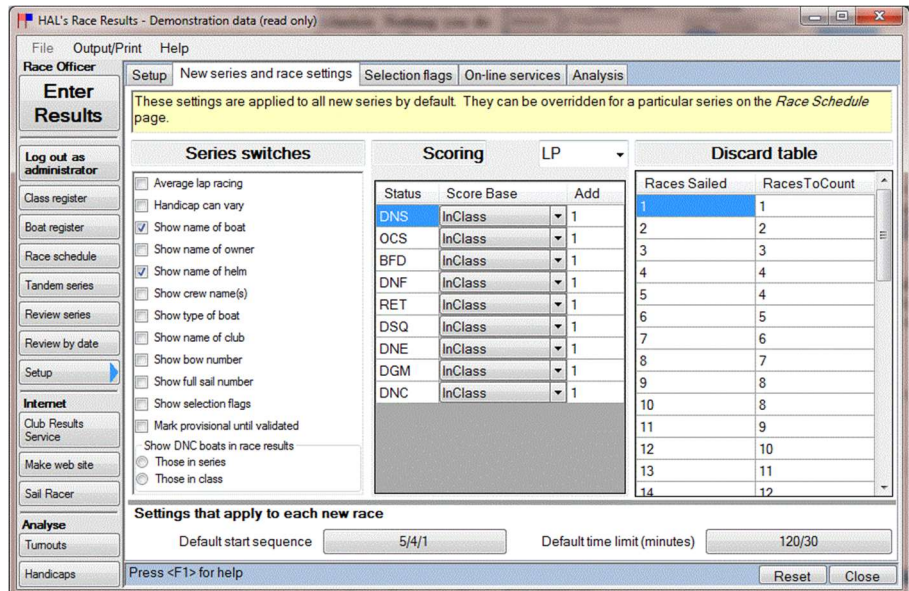


Figure 30. Default settings for new series and races

Selection Flags

This is where you set the meaning of the selection flags that you can apply to each boat in the *Boat Register*. You can set a meaning for each letter of the alphabet and for the numerals (Figure 31). Typical uses are to pick out boats that are helmed by a cadet, or a lady, or that might be eligible for some prize, such as the first boat helmed by somebody over sixty years old. Use them for any purpose you like.



Note that you need to set the *Show Selection Flags* switch in the *Race Schedule* for each series where you want the flags to be printed.

On-line Services

This is where you set up HAL's Club Results Service and Sail Racer (Figure 32).

To set up HAL's Club Results Service you first need to obtain an account for your club. You do this and many other things to administer you're your CRS account by clicking the *Administer your CRS account* button, which takes you on-line to the CRS web site. While on-line you will need to create your account and set up your first result set. Then come back to the HAL program, put in your login and password and select the result set where the results you upload will reside on the server. Give the result set an appropriate name, such as "2011 Club Races" or "Laser South Coast Championship". One result set will hold all the results you have in the program.

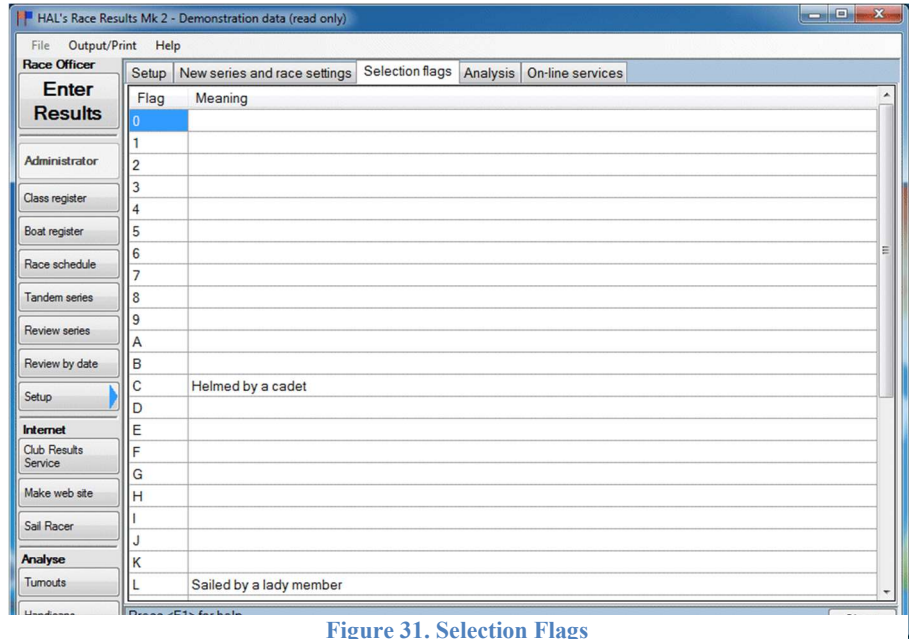


Figure 31. Selection Flags

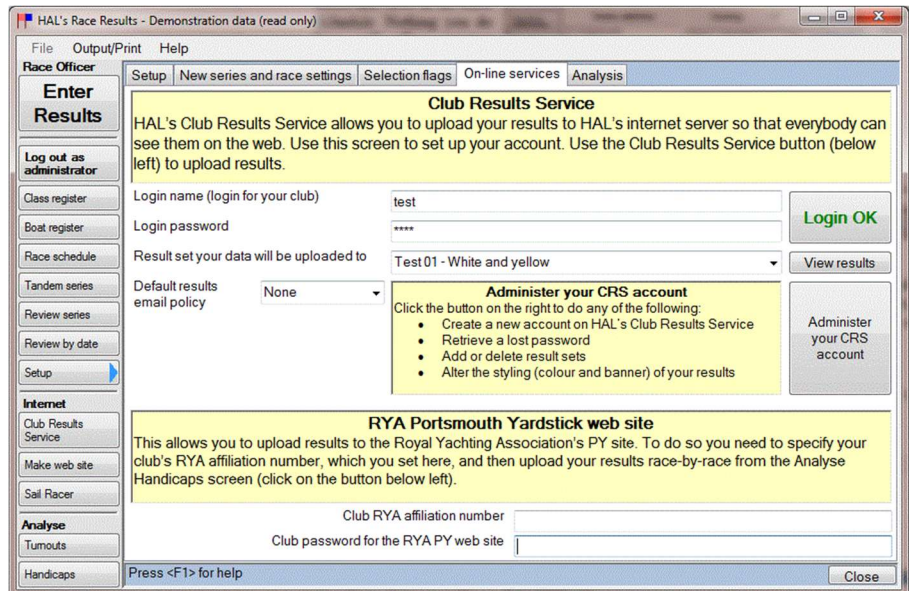


Figure 32. On-line services

Finally you can set up the log in needed to upload results to the Sail Racer web site. This requires you to supply your club's RYA Affiliation Number.

Setup for analysing handicaps

The program analyses handicaps in a similar way to that prescribed by the RYA for the Portsmouth Yardstick Scheme, although you can analyse any type of handicap, not just PY ones.



The procedure works on a race-by-race basis as described in Chapter 7.

There are two parameters affecting the way the analysis is done that can be set here (Figure). They are both described more fully in Chapter 7, but briefly they are the threshold for a boat being termed a *Poor Performer* and so excluded from the calculation of the *Standard Corrected Time* and the minimum number of finishers needed to validate a race for the purposes of statistical analysis. You can also set a switch here to use only the top two thirds of the boats for calculating the initial average time.

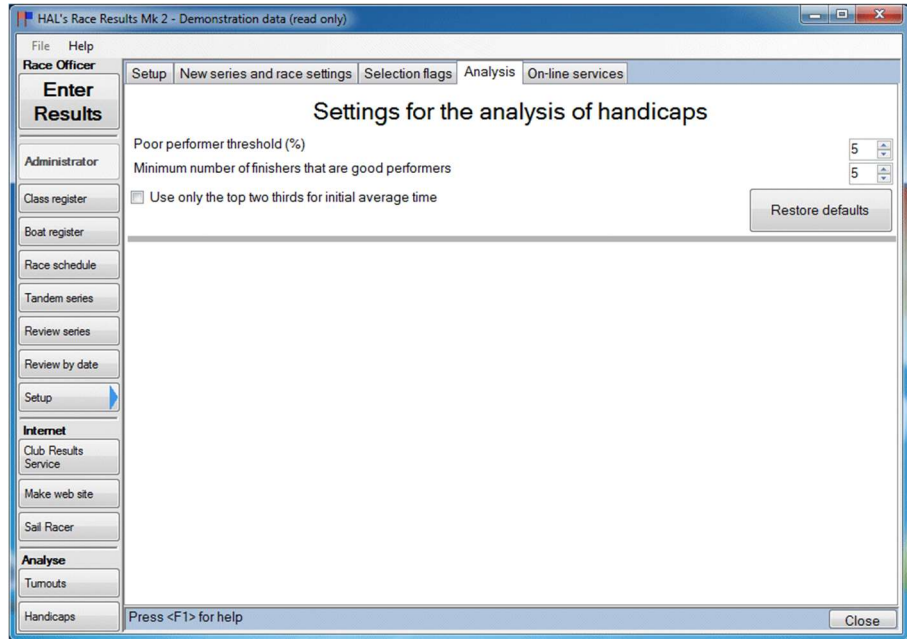


Figure 34. Handicap analysis settings



Chapter 6 – THE INTERNET

There are three parts of the program that deal with the Internet: HAL's Club Results Service, web pages to paste onto your own site and Sail Racer.

HAL's Club Results Service

This is a service that allows you to upload your results to HAL's server and show them in a format similar to Figure 33. There are drop-down boxes at the top of the page to allow users to browse the results.

You can use the results on the server directly, by giving your members a link to the server, or you can incorporate the results into your own club web site so that they appear as an integral part of the site.

Results to 29/05/2011		Result set Test		Class Cruisers		Series PY Spring Series				
Race 1 starting on 27/03/2011 at 10:30										
										Overall Series Results
Place	Sail No	Name	Type	Owner	Status	Hcap	Finish	Elapsed	Corrected	Points
1	24	Wagoner	WESTERLY CENTAUR	Wally Williams	OK	1207	11:52:02	1:22:02	1:07:58	1
2	3794	Balderdash	WESTERLY FULMAR	Jumbo Jeffries	OK	1016	11:40:00	1:10:00	1:08:54	2
3	4469	Nitrogen	SIGMA 38	Nancy Norton	OK	844	11:30:52	1:00:52	1:12:07	3
4	253	Hustling Harry	HUSTLER SJ30	Harry Hassleblad	OK	937	11:37:42	1:07:42	1:12:15	4
5	4572	Side Saddle	SADLER 25	Jenny Jodpur	OK	1060	11:47:52	1:17:52	1:13:28	5
6	1	Egomaniac	One-off	Edgar Ego	OK	1120	11:52:45	1:22:45	1:13:53	6
7	2354	Countess Weir	CONTESSA 32	Jenny Jenkins	OK	994	11:44:45	1:14:45	1:15:12	7
8	4645	Silver Tornado	Farr 40	Sam Wallet	OK	800	11:30:25	1:00:25	1:15:31	8
9	4465	Halogen	SIGMA 33	Henry Anfield	OK	927	11:47:45	1:17:45	1:23:52	9
10	3451	Nicky Noo	NICHOLSON 30	Nicholas Fairley	DNC	1014				(17)
11	4467	Oxygen	SIGMA 33	Oliver Oldfield	DNC	927				(17)
12	5427	Significant	SIGMA 33	Barry bigshot	DNC	927				(17)

RO was Billy Nononsense
Wind was SW at 18 to 24 knots
Trophy for this series is Palington Plate

Produced with [HAL's Race Results](#) (version 11.1.2.24282)

Figure 33. Web page showing the results of one race on HAL's Club Results Service

HAL's Club Results Service can show overall series results as well as individual races as shown in Figure 34.

You can change the colour of the pages, the colour of the highlight panel at the top left and add a banner specific to your club.



Results to 29/05/2011		Result set Test		Class Flying 15		Series Evening			
Overall Results									
Place	Sail No	Name	Owner	Race 1 21 Apr	Race 2 28 Apr	Race 3 5 May	Race 4 19 May	Race 5 26 May	Points
1	547	Foxtrot Fandango	Victor Silvester	2	2	1	2	(7)	7
2	436	Frying Fat	Charlie Chip	3	(9/DNC)	3	3	1	10
3	365	Flying Fish	Andy Hancock	(9/DNC)	1	8	1	2	12
4	999	Fat Freddie	Fred Tubby	1	3	5	(9/DNC)	3	12
5	233	Freds Fancy	Fred Smith	(9/DNC)	4	4	4	4	16
6	364	Felicitys Folly	Felicity Macintosh	4	(9/DNC)	2	6	9/DNC	21
7	111	Flighty Fannie	Fanny Frobisher	(9/DNC)	5	7	5	5	22
8	254	Fredas Fling	Freda Jones	5	(9/DNC)	6	9/DNC	6	26

Gap on 19 May for the Crews race.
Races in brackets () are discards.
There are 6 races scheduled in this series.
5 races have been sailed.
4 races have been counted.
Race_1 note: A cracking start to the season for the FF Class
Race_3 note: Full turnout for the FF class
Race_6 on 02 June 2011 has no results yet.

Trophy for this series is 'Wagoner Trophy'

Produced with HAL's Race Results (version 11.1.2.24282)

Figure 34. Web page showing the overall results of a series on HAL's Club Results Service

Making static pages for your own web site

If you do not want to use HAL's Club Results Service, the system can make static pages for you to upload to your own web site.

Click *Make web site* to bring up the screen shown in Figure 35.

The system makes a whole set of web pages (HTML files) that you can upload to your site in the same way you upload any other material. It makes an overall index page with a link to each series. The series results pages have links to each individual race. You can either make pages for all the classes and series in your system, or pick out individual ones using the list on the left.

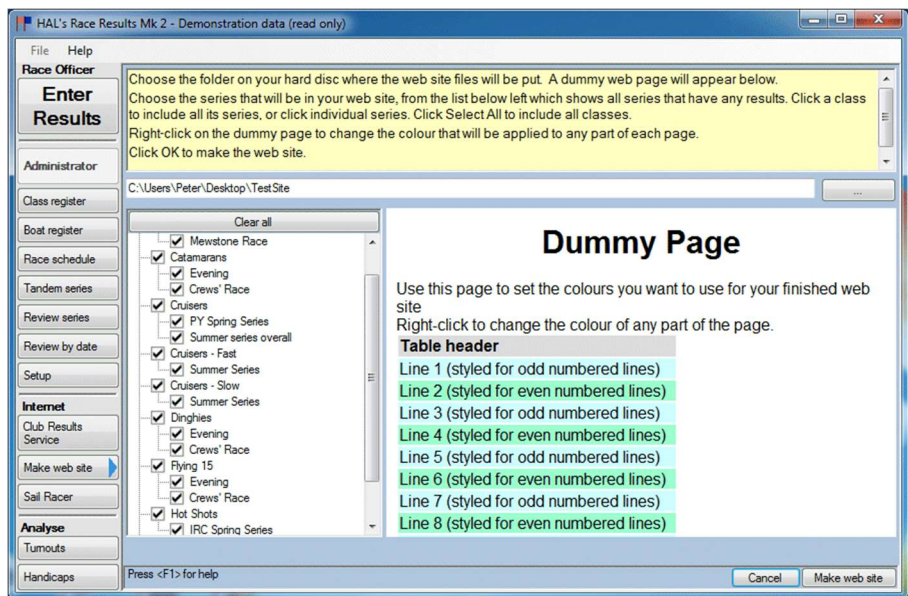


Figure 35. Make pages for a web site.

The dummy page shown in Figure 35 shows the colours used for your pages. You can right-click the page to change the background colour of any part of the page and the colour of the text. These settings are recorded in a style sheet file that is saved alongside your pages.



Sail Racer

The interface to Sail Racer gives you the ability to display the results of individual series on the Sail Racer site, which is very popular with UK dinghy classes.

Click *Upload* on the list of series (Figure 36) to bring up a web page to upload the data to Sail Racer.

Once the data has been uploaded you can click through to see it on the Sail Racer site. However it will not be generally available until it has been approved. Email Simon Lovesey of Sail Racer at simon.lovesey@sailracer.co.uk to request approval.

Class	Series	Start time	End time	Races	Cancelled	Incomplete	Upload		
Cunard	PP Spring Series	27-03-20	10:30:00	01-03-2011	0 30:00	6	0	0	Upload
H&L Boat	IPC Spring Series	27-03-20	10:30:00	01-03-2011	0 30:00	6	0	0	Upload
Rings 2	Evening	27-04-20	19:00:00	02-06-2011	9 00:00	5	0	1	Upload
Evening	Evening	27-04-20	19:00:00	02-06-2011	9 00:00	6	0	1	Upload
Dagles	Evening	27-04-20	19:00:00	02-06-2011	9 10:00	5	0	1	Upload
Sail Cup	Evening	27-04-20	19:00:00	02-06-2011	9 15:00	5	0	1	Upload
Cunard Sun	Sunrise Series	08-05-20	10:30:00	18-06-2011	0 30:00	4	0	2	Upload
Cunard Sun	Sunrise Series	08-05-20	10:30:00	18-06-2011	0 30:00	4	0	2	Upload
Cunard Sun	Sunrise Series	08-05-20	10:40:00	18-06-2011	0 40:00	4	0	2	Upload
Rings 2	Grand Race	27-05-20	19:00:00			1	0	0	Upload
Dagles	Grand Race	27-05-20	19:00:00			1	0	0	Upload
Sail Cup	Grand Race	27-05-20	19:00:00			1	0	0	Upload

Figure 36. Sail Racer screen



Chapter 7 - ANALYSIS OF RESULTS

The program allows you to analyse your results in two ways: turnout statistics and performance against handicaps.

Turnout statistics

Click *Turnouts* on the main menu to bring up the screen shown in Figure 37.

This shows the number of races that each boat was eligible to take part in, the number it did take part in and its percentage turnout.

To be eligible to take part in a race the boat must be a member of the class that the race is held for.

When first displayed the screen shows the overall turnout in all the classes in the system. However you can filter the results to show just particular classes, or particular series using the *Filter* menu.

Sail No	Name	Owner	Helm	Crew	Races available	Races sailed	Turnout
145	Sun Ray	Helios Thalk	Helios Thalk	Sally Smiler	4	1	25%
146	Twin Cities	Mary Minneapolis	Mary Minneapolis	Steve St Paul	5	2	40%
234	Yippee!!!	Alan Acrobat	Alan Acrobat	Jenny Acrobat	4	1	25%
256	Stormy Weather	Geoff Gale	Geoff Gale	Hilary Hurricane	5	1	20%
1562	Heavenly Twins	Pete Gemini	Pete Gemini	Paul Gemini	5	1	20%
3561	Rocket Man	Gary Spaceman	Gary Spaceman	Luke Skywalker	4	2	50%
4596	Shear Bliss	Harry Bliss	Harry Bliss	Betty Bliss	5	4	80%
5427	Wee Willy	Willy Wallace	Willy Wallace	Sandy Scrimshaw	4	1	25%
5632	Little Donitt	Steve Donitt	Steve Donitt	Helen Donitt	4	4	100%
7534	Razor Sharp	Barry Barber	Barry Barber	Larry Barber	4	4	100%
7923	Jumping Jack	Fred Fanshaw	Fred Fanshaw	Alice Truman	4	4	100%
8845	Topside	Terry Taylor	Terry Taylor		4	4	100%
8945	Jimmy Cricket	Jim James	Jim James	Jane James	4	1	25%
14325	Free Enterprise	Adam Smith	Adam Smith	Adam Faith	4	1	25%
15689	Collaboration	JS Gilbert	JS Gilbert	A Sullivan	5	3	60%
97564	Anode	Pat Positive	Pat Positive		5	4	80%
97845	Laser Magic	Lightning Lawrence	Lightning Lawrence		5	5	100%
98735	LED	Larry Linton	Larry Linton		5	4	80%
98765	Swallowtail	Pete Swallow	Pete Swallow		4	1	25%
100894	Trode	Tim Taylor	Tim Taylor		5	5	100%

Figure 37. Analyse turnout statistics boat by boat

Performance against handicap

Click *Handicaps* on the main menu to bring up the screen shown in Figure 38.

This shows the number of races for each class and series for each type of handicap. It also shows the number of races that are valid in terms of having adequate statistics to make a reasonable analysis of each boat's performance, using the parameters set on the *Setup / Analysis* screen described in Chapter 5.

This is a summary of the data for handicap classes. It only shows statistics for those classes, series and races that have some results, ignoring races still to be sailed, cancelled or abandoned.
Valid races are those that have enough good performers and have not been manually excluded.
Press <F1> for a definition of "good performer" and an explanation of the method of analysis.

Hcap type	Classes	Series	Races sailed	Valid races	Review
Portsmouth	4	5	14	8	Review
IRC	0	0	0	0	Review
SmallCat	1	2	5	0	Review
CYCA	0	0	0	0	Review
ECHO	0	0	0	0	Review
SBR	0	0	0	0	Review
IRM	0	0	0	0	Review
IHS	0	0	0	0	Review

Figure 38. Races available to analyse handicap statistics



The procedure works on a race-by-race basis as follows:

1. Calculate the average corrected time for the race. By default, this is done using all the boats that finish the race, but if the switch is set in *Setup / Analysis* it uses only the top two thirds of the boats.
2. Temporarily eliminate those boats that are poor performers. The definition of a poor performer is a boat whose corrected time is a certain percentage slower than the average (default 5%, but adjustable in *Setup / Analysis*). This is on the assumption that such boats had particular problems unrelated to their underlying performance.
3. Recalculate the average corrected time using the boats that are good performers. This is known as the Standard Corrected Time (SCT).
4. Bring back the boats that were eliminated as poor performers. Calculate the time correction coefficient (TCC) actually achieved by each boat, using the SCT as the benchmark.
5. Throw out those races with less than a certain number of finishers that are good (that is not poor) performers (default again 5, but adjustable in *Setup / Analysis*).
6. Allow the user to step through the races and exclude any that have suspect statistics, such as those held in very fluky conditions or where some incident disrupted the race.
7. Based on all the races that have not been excluded in the above steps, produce overall statistics as follows.
 - Performance statistics for each boat for each type of handicap (eg Portsmouth, IRC, Small Cat) giving the average TCC achieved, the number of results used to calculate that TCC, the lowest and highest TCC.
 - Similar analysis for each type of boat, by aggregating the statistics for all the boats of a certain type (e.g. Laser Radial, Sigma 33).

Clicking *Review* against each type of handicap allows you to step through the races held for the classes that use that system. Each race is shown separately (Figure 39).

The system does an initial analysis based on the method laid out above and comes to a decision about whether the race is valid for inclusion in the overall statistics. However you can override the initial assessment and exclude a race from the statistics if you know that it is suspect by checking the *Exclude from the boat and type statistics* box at the top left of the screen. You might do that if there was a particularly significant wind shift, for instance.

If you think the analysis of a RYA PY race is a good one, you can help develop the Portsmouth Yardstick system by uploading it to the RYA's database from the *Output/Print* menu. You can then log onto the RYA's sits at <http://www.pys.org.uk> to process your data further.

Once you have reviewed all the races, you can see the overall results for each boat, or for each type of boat.

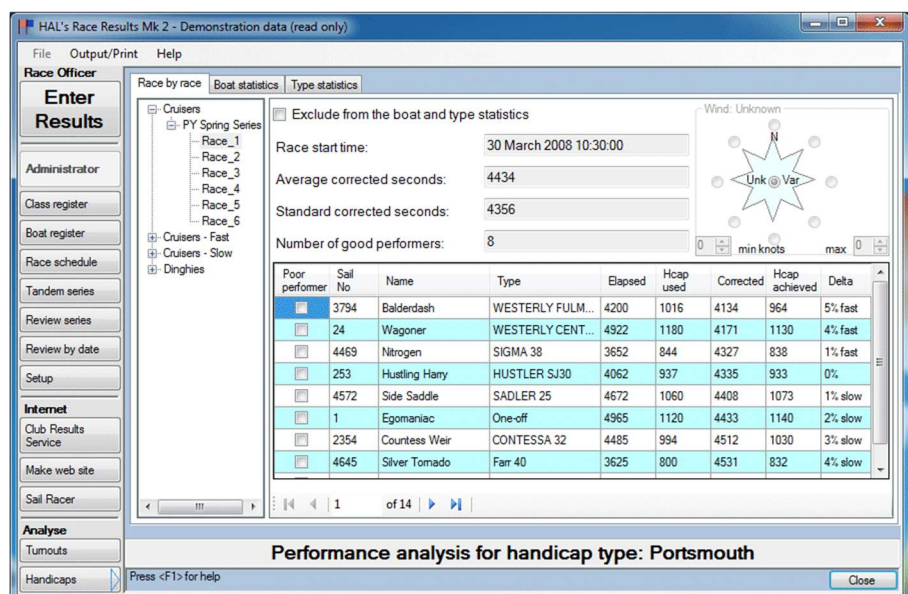


Figure 39. Analysing the handicap statistics of an individual race



HAL's Race Results Users' Manual

The boat-by-boat statistics look similar to those in Figure 40. This shows the number of *Good Performances* achieved the number of *Poor Performances* and the average handicap achieved across all the races and the handicap achieved just in good performances.

It also shows the slowest and fastest handicaps used to calculate the boat's results, in other words the values of handicap stored in the *Boat Register*. Note that these are not the slowest and fastest handicaps actually achieved, just the ones used in the results calculations. As a consequence of this analysis, you may decide to alter a boat's handicap, of course.

The final screen (Figure 41) shows the aggregation of the statistics for each type of boat.

Sail No	Name	Type	Good perfs	Poor perfs	Av hcrap overall	Av hcrap good perfs	Fastest Hcrap Used	Slowest Hcrap Used	Delta good perfs
24	Wagoner	WESTERLY CENTAUR	8	0	1172	1172	1207	1207	3% fast
3794	Balderdash	WESTERLY FULMAR	7	0	1019	1019	1016	1016	0
4469	Nitrogen	SIGMA 38	7	1	852	844	844	844	0
253	Hustling Hany	HUSTLER SJ30	5	0	966	966	937	937	3% slow
4572	Side Saddle	SADLER 25	5	1	1079	1063	1060	1060	0
1	Egomaniac	One-off	6	1	1130	1114	1120	1120	1% fast
2354	Countess Weir	CONTESSA 32	4	1	987	970	994	994	2% fast
4645	Silver Tomado	Farr 40	5	0	794	794	800	800	1% fast
4465	Halogen	SIGMA 33	4	1	967	944	927	927	2% slow
3451	Nicky Noo	NICHOLSON 30	5	0	1011	1011	1009	1014	n/a
4467	Oxygen	SIGMA 33	4	1	961	940	927	927	1% slow
5427	Significant	SIGMA 33	3	1	960	929	927	927	0
2486	Eider	VIVACITY 20	3	0	1322	1322	1328	1328	0
1252	Marina Monster	RUFFIAN 23	2	1	1090	1064	1060	1060	0
352	Gently Does It	WESTERLY CENTAUR	1	0	1221	1221	1207	1207	1% slow
7923	Jumping Jack	WAYFARER	2	0	1081	1081	1099	1099	2% fast
5632	Little Donitt	CADET	5	0	1404	1404	1432	1432	2% fast

Figure 40. Handicap statistics by boat

Type	Boats	Good perfs	Poor perfs	Av Hcrap good perfs	Av Hcrap overall	Slowest Hcrap used	Fastest Hcrap used	Delta on good perfs
WESTE...	2	9	0	1178		1207	1207	2% fast
WESTE...	1	7	0	1019		1016	1016	0
SIGMA 38	1	7	1	844		844	844	1% slow
HUSTLE...	1	5	0	966		937	937	3% slow
SADLER...	1	5	1	1063		1060	1060	2% slow
One-off	1	6	1	1114		1120	1120	1% slow
CONTES...	1	4	1	970		994	994	1% fast
Farr 40	1	5	0	794		800	800	1% fast
SIGMA 33	3	11	3	938		927	927	4% slow
NICHOL...	1	5	0	1011		1014	1009	n/a
VIVACIT...	1	3	0	1322		1328	1328	0
RUFFIA...	1	2	1	1064		1060	1060	3% slow
WAYFA...	2	4	0	1089		1099	1099	1% fast
CADET	2	7	0	1419		1432	1432	1% fast
TOPPER	1	3	0	1286		1290	1290	0
LASER	1	2	0	1059		1078	1078	2% fast
RS9999	1	4	0	786		785	785	0
RS 400	1	4	1	956		952	952	3% slow

Figure 41. Handicap statistics by type of boat



Appendix A - Instructions to Race Officers using HAL¹³

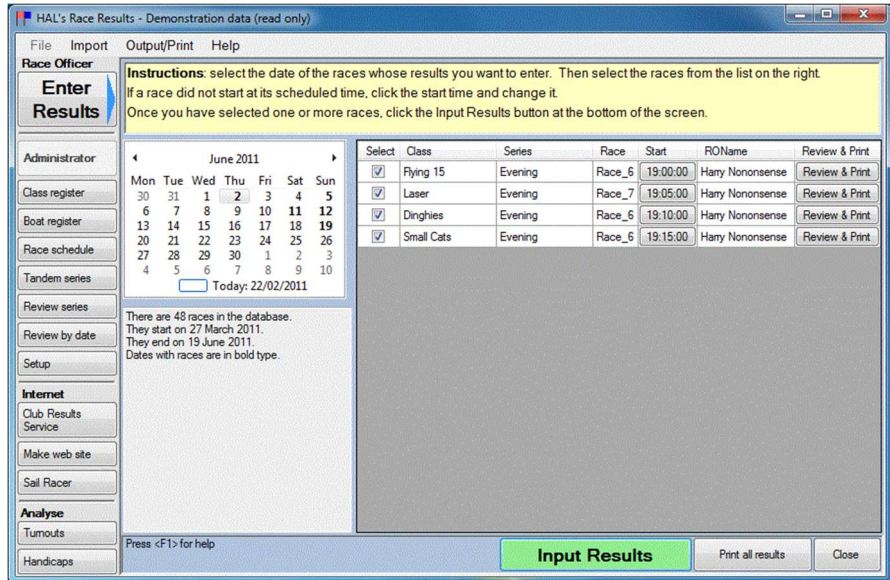
Before the Race

If you would like a printed schedule of flag sequences for the start, or a round sheet, follow the instructions to end of Step 1 and use the *Output* menu to produce what you need. If you need to print start times for a pursuit race, select that race alone.

Instructions to the Race Officer for entering results into the computer

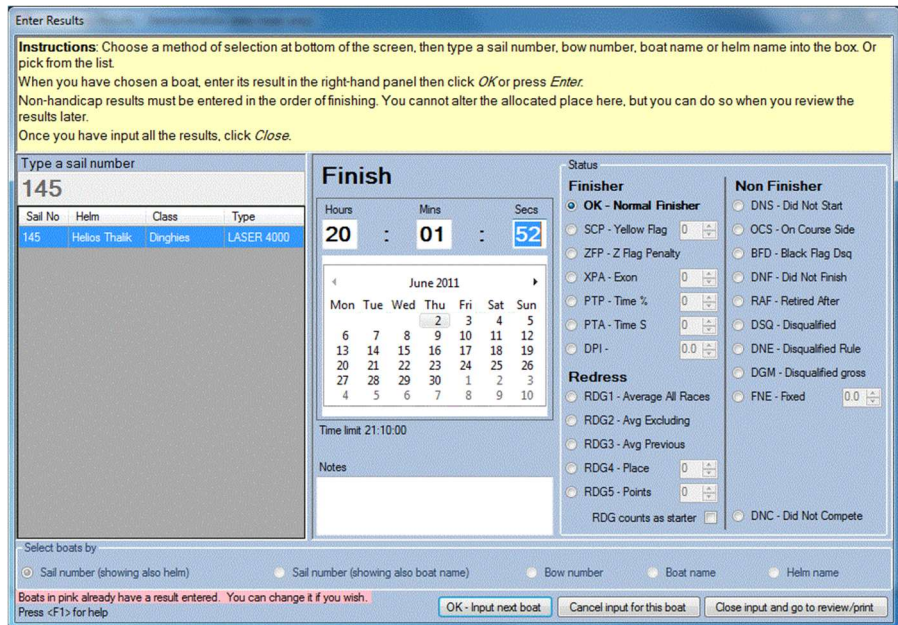
Step 1 Choose your races.

Start HAL. Click the *Enter Results* button at the top left. The screen shows the races scheduled for each day. Use the calendar to find your races and select those for which you want to enter results. If you have several races, it is best to select them all rather than doing them one at a time. The computer will know which race each boat is taking part in, so you can enter the results in the order the boats crossed the finishing line.



Step 2 Verify start times. Enter the Race Officer's name and click the *Start* button against any races that did not start at the scheduled time. Then click the *Input Results* button at the bottom of the screen.

Step 3 Input results. Start inputting results for each boat, in the order they crossed the finishing line. You can select each boat either from the list, or by typing its sail number into the box. If you want to use bow numbers, or boat names, or the names of the helms, rather than sail numbers, choose the option at the bottom of the screen.



When you have selected a boat, input its result, either as a finish time, or for level races as a place. If the boat was not a normal finisher, select its status from the options on the right of the screen. When the result is correct, press *OK - Input next boat*.

¹³ This appendix is available as a Microsoft Word file on the HAL web site (www.HalsRaceResults.com) for you to download and customise as required for your club's particular requirements.



HAL's Race Results Users' Manual

If you realise after entering the results for a boat that you made a mistake, you can input the same boat again and over-write what you put in. There will also be an opportunity to make corrections during Step 4. Repeat Step 3 until all the boats have been put in, and then click the *Close* button to go back to the first screen.

Step 4 Review. Click *Review and print* against each race in turn. The screen shows the results you input. If there is a problem with a result, then click the *Edit* button and alter it, or the *Delete* button. If there are boats you forgot to enter, click *Close* and go back to the previous step. Put in any notes about the race, such as protests received, and record the wind data. When you are happy with the results, print them from the *Output* menu.

Place / Status	Sail No	Boat name	Hcap	Finish	Elapsed	Corrected	Points	Edit	Delete
1	256	Stormy Weather	1.180	20:14:58	0:59:58	0:50:49	1	Edit	Delete
2	15689	Collaboration	1.180	20:15:25	1:00:25	0:51:12	2	Edit	Delete
3	200247	Ying Yang	1.180	20:16:23	1:01:23	0:52:01	3	Edit	Delete
OCS	198745	Schizzo	0.798				5	Edit	Delete
DNC	146	Twin Cities	1.190				9	Edit	Delete
DNC	1562	Heavenly Twins	1.160				9	Edit	Delete
DNC	4596	Shear Bliss	1.190				9	Edit	Delete
DNC	200163	Mini Twin	1.180				9	Edit	Delete

Step 5 (optional) Internet. Upload the results to HAL's Club Results Service so that they are available on your club's web site. Click *HAL's Club Results Service* near the bottom left of the screen.

Step 6 Finish. Close all the screens until you get back to the original one. Then close the program from the *File* menu.

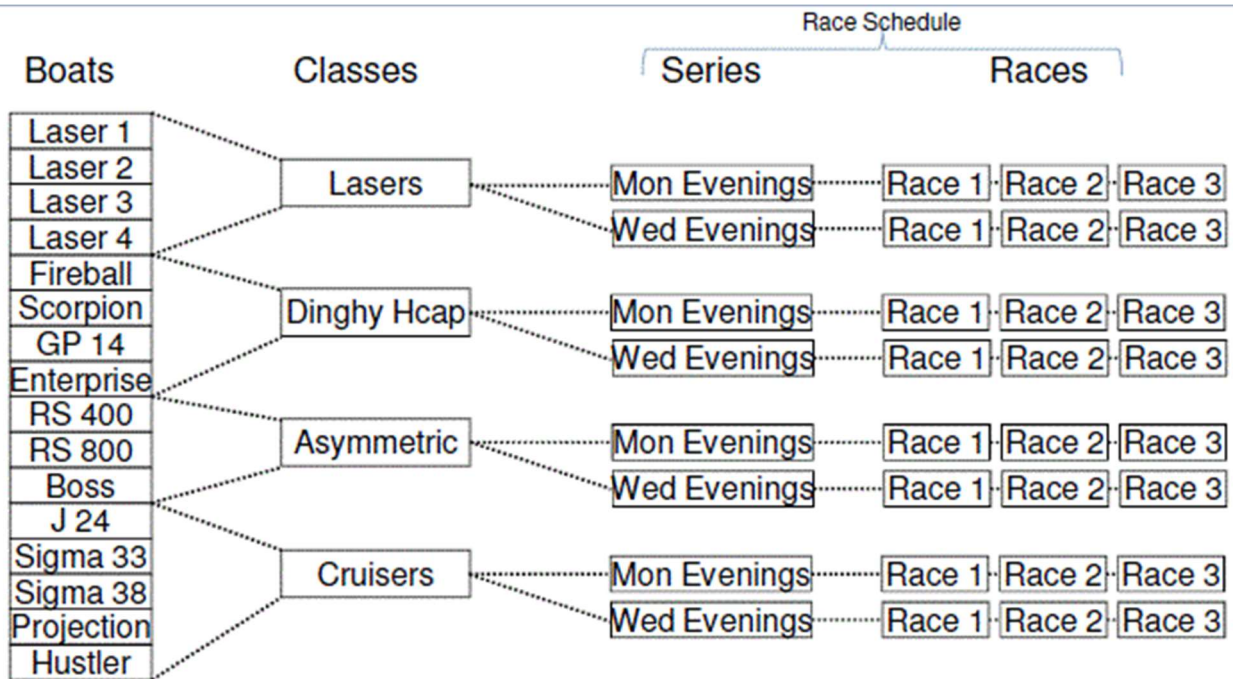


Appendix B – Guidelines for organising your Boats, Classes, Series and races

The registers define the fundamental organisation of your racing. It is vital that you get their structure right. Start with the Boat Register. Every boat that takes part in any race needs to be in it. If it is not there its sail number will not be in the list of boats available to the race officer when entering results.

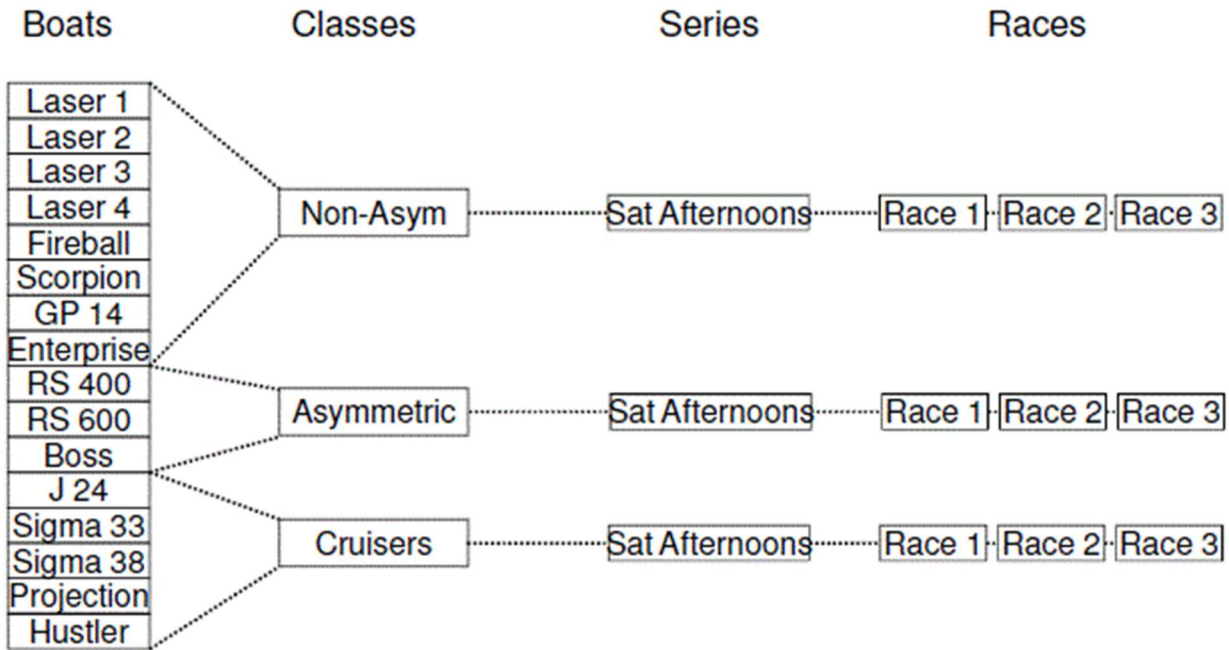
Next consider the Class Register. All racing takes place in classes. Each series of races is for one of the classes in the Class Register. For a boat to take part in a particular race it must be in the Boat Register and be a member of the class in question.

For instance your club might organise races every Monday and Wednesday evening for the classes shown below.



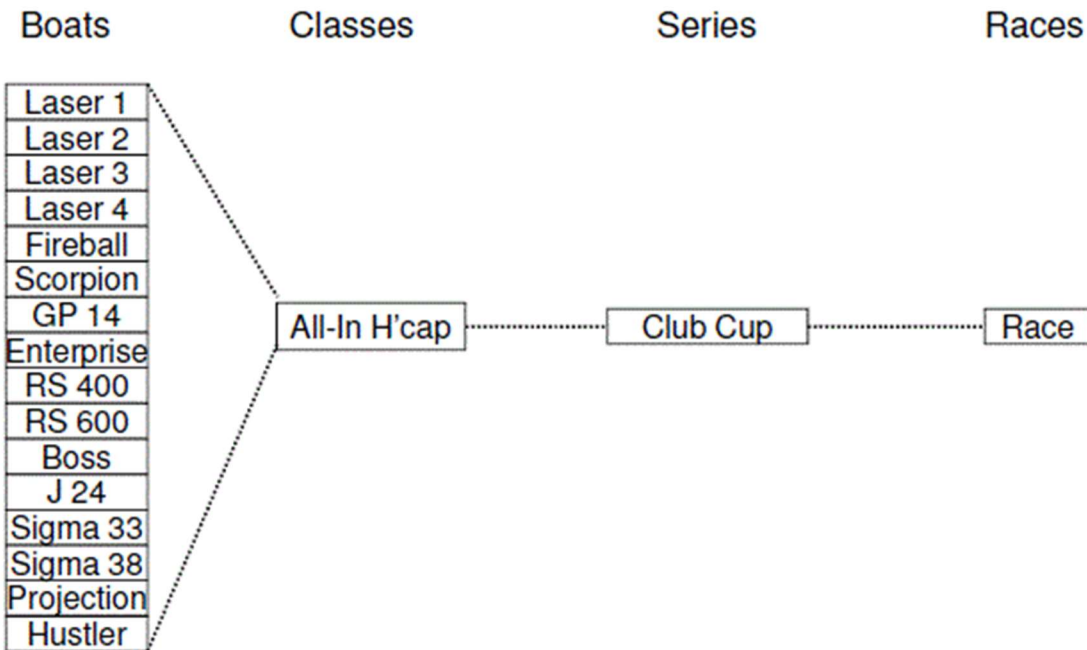
So Laser 1, Laser 2, etc. must be in the Laser class. Fireball, Scorpion, etc. must be in the Dinghy Handicap class, and so on.

On Saturday afternoons Lasers might not have their own start, but might sail with other non-symmetric dinghies. So racing should be organised as shown below.



Note that the boats that were in the Dinghy Hcap class for Monday and Wednesday evenings and the Lasers also need to be in the Non-Asym class so that they can take part on Saturdays.

Sometimes the club may organise races for all its boats together, so it needs a class for that too, as shown below.



So all boats are members of at least two classes – their own and the All-In Hcap class. The Lasers and the non-asymmetric dinghies are members of three classes, because they sometimes race together, sometime separately, and sometimes with everybody else as well.

This is a typical structure for club racing. You should note the following important points:

- Races are set in series. Each series is for one class. Note that a series can have any number of races up to 52. It could have just one race.
- To take part in any race a boat must be in the Boat Register and must be a member of the class for which the series is set.



HAL's Race Results Users' Manual

- Each boat may be a member of several classes so that the overall fleet can be divided in different ways for different occasions.
- On any one occasion the races should be for classes that divide the boats unambiguously. In other words each boat should be a member of one, and only one, class that is racing at the same time.



Appendix C - Guidelines for scoring a Regatta or Championship

Here are some thoughts on using HAL to score an important event, such as a regatta

or championship. The overall priority is to provide accurate results to competitors and other interested parties - such as friends and relatives, officials and the press - in a timely fashion. The aim is to provide provisional results immediately after the end of each race and validated results as soon as any protests or jury decisions have been resolved. The results must be displayed on the official event notice board, and people also like to see them on the web. It is also convenient if results can be emailed to interested parties.

Getting information published quickly, marked provisional if necessary, is the best way to catch mistakes early. It is amazing how hard it can be to correct an error if it is not caught until the competitors have left for the night. If it is picked up as soon as they come ashore it can be fixed straight away.

The following paragraphs suggest which issues to think about when planning the scoring arrangements for an important event.

Where and when to compute the results

You need to make an early decision on the basic arrangement for producing results. There are three fundamental options.

Option 1 – Score on the committee boat after each race.

The race officer's team does the results on the committee boat, or in the starting hut if they are shore-based. This is an efficient option if the race officer is happy to dedicate at least one member of his team to it immediately after the finish of each race. Bear in mind, though, that if there are several races being run back-to-back this may be a busy time for the team. Also you have to be sure that there is a suitable place to do it in comfort and that you have a laptop with sufficient battery endurance.

You still need to decide how to get the results to the club. If you can arrange an Internet connection alongside the race team, you can publish immediately to HAL's Club Results Service and the resulting web pages can be viewed and printed at the club. Alternatively, you could print the results on board and take them ashore by RIB, but in that case you might be better using Option 2. Or you could bring the results ashore at the end of the day, but competitors will get their results late and you might as well use Option 3.

Personal opinion. Option 1 is elegant but needs a well practiced team. The race team is often busy and the results will be low on their list of priorities.

Option 2 – Score in the club after each race

Results can be sent ashore by radio, telephone or RIB. This option can be as fast as Option 1 if there is somebody standing by to process the results as soon as they arrive. You need reliable communications to the shore, which is usually best by mobile phone. VHF is an alternative, but ties up valuable radio time and clogs the air waves.

Make sure the person receiving the results over the phone or radio has a pre-printed form with line numbers on it. Read the results in blocks of ten boats and confirm that sender and receiver are both on the same line number.

Personal opinion. Option 2 is often the most practical one. It is reliable provided you have good communication with the committee boat and somebody available in the club to input the results.



The person ashore needs to print provisional results and get them on to notice boards as soon as possible. It is useful to get them on the web immediately, marked provisional, so that competitors' friends and family can see them.

Option 3 – Score in the club at the end of each day

This is the simplest option, but also the slowest. Competitors will not see results until well after they have come ashore, by which time many may have gone home. You are likely to get late queries, very likely the next morning when people are keen to get back out on the water and need to know how they stand in the rankings.

Personal opinion. Option 3 is only suitable for club racing and very low key events.

What equipment is needed?

If you just want paper printouts and nothing on the Internet, all you need is a computer running HAL and a printer. If you are calculating the results ashore, remotely from the race officer's team, you need a reliable communication link next to the computer. Mobile phone is best as it does not clog up the VHF channels.

It is good to use paper of different colours for different types of printout. For instance: provisional results on pink paper, validated results on pale green paper and other notices, such as boat lists, on white paper.

If you want to put your results on the Internet, and very few events do not do so these days, you need an Internet connection.

Initial Setup

Once the Notice of race has been published, you can start setting up HAL. The first thing to decide is whether to start a new file for the event, or to mix the event into your day-to-day club results. In most cases it makes more sense to start a new file.

The first thing to do is set up the Class Register and the Race Schedule. Think whether any tandem series are needed, for instance to pick out a mini-series within the overall results. Pay particular attention to the table of discards and to the scoring arrangements for non-finishers. Do the Sailing Instructions specify that boats scoring DSQ get more points than those that retire, for instance?

Set up the Series Switches on the Race Schedule. These control what will be shown on printouts and web pages. Cruisers usually like to see the boat name and owner, whereas dinghies often do not have names and the helm is the most important identifier. Ensure that non-validated results will be shown as provisional (set the mark Provisional switch).

If you are going to provide the race team with start-sequence printouts, make sure the class flag is in the Class Register and the start sequence is correct in the Race Schedule.

As the Entries come in

Populate the Boat Register as the entries arrive. It is important to get the full names, first and last, of all competitors, including the crew. It is embarrassing if nobody knows the first name of a prize winner. Proper design of the Entry Form will help here. The same goes for the name of the club each boat comes from. If you want HAL's Club Results Service to send emails to competitors giving results, make sure the email field in the Boat Register is filled in. Multiple emails can be sent for each boat by separating the email addresses with semi-colons.

If this is a handicap event, make sure you get the right type for each boat and the correct handicap. If you are using bow numbers, enter these as you go. Use the same numbers for things like dinghy parking slots and social tickets.



Do you need any selection flags? For instance, do you need to identify boats that have female helms, or boats that are eligible for particular prizes?

If accepting entries before people arrive, it is useful to make a web page of the entry list (Class Register / Output Boats in Class) and paste it on your web site. Seeing boats already entered encourages other people to join in.

On Registration Day

This is the time to double check all the information you have pre-entered in HAL. Print out the entry list and get each competitor to check his or her entry while they are registering. This is the time to catch misspelled names or changes of crew. Make sure you have correctly identified which boats are eligible for special prizes, such as cadets or older boats.

On the first morning

The event is about to start and this is the last opportunity to iron out any problems without too much embarrassment. Check the entry list and give copies to the race team. Make round sheets for the race team to tick off boats in the starting area and to use as the race progresses (click Enter Results, select the race, Output Round Sheets). Make a print out of the flag and sound signals (click Enter Results, select the race, then Output Start Sequence). Double check the arrangements for getting the results ashore and publishing them. If using a mobile phone, make sure its battery is charged and there is plenty of call time available.

After each Race

Your aim should be to get the results into circulation as soon as possible, so that competitors can see how they stand and any mistakes get picked up quickly.

Note the time the race started (not necessarily the scheduled time) and alter the start time in HAL if necessary. Note the time of the first and last boats to finish. The time of the last boat often controls when protest time ends.

Calculate the results and check them carefully. Print both single-race results and the overall series results for each class on pink paper. Post them on the notice board. You may want to put them straight on the web with HAL's Club Results Service as well, suitable marked as provisional.

When the race team come ashore, they should immediately check the provisional results against their paper records.

Once protest time ends and the race officer and protest committee, or jury, are happy, mark the race as validated (Review by Series / Review and set the status to Validated) and reprint the results on pale green paper.

Final Results and Prize Giving

After the last race there is always a rush to get any protests dealt with, the results completed and the prize-giving underway. Liaise with the race officer and protest panel, or jury, to find out whether any results need amendment.

Once you have sign-off of the results, print a final set for use at the prize-giving. If you are using tandem series to calculate secondary results, print them as well. Go over the list of prizes and check them against the results.

Make sure final results are on all notice boards and HAL's Club Results Service. Send emails to interested journalists, together with the regatta description, which somebody will, of course, have prepared.



Appendix D – Standard Boat Types

HAL has four types of standard handicaps built in:

- The Portsmouth Yardstick numbers from the Royal Yachting Association for dinghies, small keelboats and multihulls. Note that the RYA no longer publishes PY numbers for cruisers.
- The base numbers for the National Handicap scheme for Cruisers (NHC) from the Royal Yachting Association. These are the starting numbers for NHC series, but within each series handicaps are automatically updated after each race according to a set formula. You can find out more about NHC from the RYA's web site at www.rya.org.uk
- Handicaps for the Small Catamaran Scheme.
- Australian Sailing Yardsticks (previously called VYC).

You can set handicaps to the standard values and view the complete list of standard handicaps in the Boat Register.



Appendix E – Progressive Handicaps

Progressive handicaps are ones where a boat's handicap is determined by its previous results. Rather like golf handicaps, a boat that does consistently well will have its handicap degraded and one that is persistently behind the pace will have its handicap enhanced.

HAL implements two methods. The National Handicap scheme for Cruisers administered by the UK Royal Yachting Association and the Irish East Coast Handicap Organisation (ECHO).

National Handicap scheme for Cruisers (NHC)

NHC is entirely automatic. There is no input required from the user to derive a new handicap for each boat after each race in a series. First introduced in 2013 the scheme originally had two versions: the regatta version and the club version. Both are still in HAL but are only applied to races where the first race of the series started before 1 January 2014. The regatta version was dropped in 2014 and the club version was massaged slightly to form the only version in use for races in series whose first race is on or after 1 January 2014.

The starting handicaps for NHC are built into HAL, so when you enter a boat into the Boat Register and mark it as a member of an NHC class HAL will attempt to look up the appropriate starting handicap for that type of boat from its database. But as soon as a boat takes part in a race HAL calculates a new handicap for use in the next race, based on its performance. So after a few races the handicaps of all the boats in the class will gradually move away from the base numbers towards something that more accurately reflects their actual performance on the water.

There are a few points to note about how HAL implements NHC.

1. Handicaps progress only within a series. If you start a new series for the same class the handicap used in the first race will be the base handicap again, unless you add "realigned" handicaps.
2. The handicap used for each boat in a particular race is printed on the results sheet, as for all types of handicap race. In addition the handicap to be used for the next race is printed to the right of the actual results. The same applies to outputs as web pages or spreadsheets.
3. To see the handicaps used by each boat in each race in a series, open the overall series results (Review series / Review a particular series) and select Handicap history from the Output menu.
4. At the end of a series you can calculate what are known as realigned handicaps to use to start the next series. To do so, either open the Boat Register and go to the Tools menu where you can choose a series to use to calculate the realigned handicaps and a date on which to start to use them, or open the overall series results and go to the Tools menu. Normally you would do this after the end of one series and before the start of the next series.

ECHO

Like NHC, ECHO handicaps are updated automatically after each race using the formula supplied by Irish Sailing.

There are no base numbers for ECHO, so you need to supply your own starting handicap. After each race the ECHO algorithm calculates the handicap actually achieved by each boat (known as its ECHO index). The handicap used for the next race is a combination of the ECHO index and the previous handicap. The proportion of the two is known as the blend. You have to provide a value for the blend ranging from 0 to 1 when you set up the series. The default is 0.25, meaning that the new handicap is 25% ECHO index and 75% the previous value.