



CORK/Sail Kingston Results Management Manual and Sailwave Guide V10, September 2019

**This manual has been developed by the CORK Scoring Team
with the leadership of Christine Searle.**

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Canada





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CHAPTER 1 – Introduction

CORK's vision is to be recognized as the preferred provider of regattas in the largest freshwater sailing facility in the world. The timely and accurate collection, processing and communication of racing results to competitors, coaches, jury and other regatta participants are critical success factors for realizing this vision.

1.1 About CORK

Since 2000 alone, CORK has hosted dozens of North American and World Championships out Portsmouth Olympic Harbour in Kingston, Ontario. Each regatta differs depending on the class of sailboats, the number and level of competitors and several other factors. While event details change from year to year, CORK hosts a minimum of four core multi-course regattas in August and September each year:

- *International Optimist Regatta* – about 150 competitors 8-15 years old in two-three fleets. Qualifying and Final series for World Sailing-ranked competitors.
- *International* – up to 500 competitors and coaches in three classes (Laser Radial, Club 420, 29er) and 'Under 19 (U19)' and 'Under 23 (U23)' age groups. Qualifying and Final series for some classes.
- *Olympic Classes Regatta (OCR)* – about 150 competitors in six classes (Laser Standard, Laser Radial, Finn, 49er, 49erFX, I14, RS:X).
- *Fall Regatta with Ontario Combine* – about 175 competitors in six classes (Laser Radial, Laser Standard, Club 420, Optimist, 29er, 49erFX).

1.2 About CORK's Results Management Manual

CORK's Results Management Manual was initiated in 2016 to be a platform for consistent and effective scoring of CORK events. This Manual provides step-by-step details of scoring requirements and functions before, during and at the end of a typical CORK multi-class regatta. It was developed collaboratively by pooling the knowledge and experience of sailing officials who have experience organizing and running multi-class regattas throughout Canada and internationally.

The Results Manual is the basis of continuous improvement in [CORK's Scoring System](#) which integrates competitors' registration data from the [CORK Registration Management System \(CRMS\)](#) and [Sailwave](#) – a fully featured, easy-to-use, multi-lingual, sailing results/scoring application for Windows developed in 2002.

While the Results Manual is designed for use at CORK, its content - step-by-step processes and tools - serve as a curriculum for training and recruiting volunteers who want to join the CORK Results Team – a cadre of qualified scorers who contribute to the success of each regatta. Scoring skills learned at CORK are transferable to sailing clubs everywhere.



CHAPTER 2 – CORK Scoring System

2.1 Definitions: Scoring, Scorer, Results

In simple terms, *scoring* is the process comprised of several procedures or actions, *scorer* is the person performing the scoring procedures and *results* are the product or output of scoring a sailing event. The timely communication of accurate *results* is the main objective of the Results Team.

A typical multi-course sailing event at CORK consists of two-three circles of competition or *courses*. Each course may have one or more classes of boats depending on the number of competitors who register to compete in the event. A group of competitors (i.e. a class of boats competing in the event) is called a *fleet*.¹ A regatta is a sporting event consisting of a series of boat or yacht races. For purposes of this Manual, the terms 'event' and 'regatta' are inter-changeable. See the Glossary in Appendix A for other definitions that you may see in this Manual.

CORK organizes races consistent with the [Racing Rules of Sailing \(RRS\)](#) which govern the sport of sailing on the water. Two important RRS sections relating to scoring can be found in Appendix B of this Manual.

2.2 Scoring System Overview

Teamwork

As described in the RRS, several different groups of officials must work together to organize and successfully conduct a series of races. Part 7 of the RRS outlines the rules for organizing races by an 'organizing authority' such as CORK, which appoints a 'race committee' and a 'protest committee' or jury. According to RRS 90.3, the Race Committee is responsible for results – i.e. the product created from scoring a series of races.

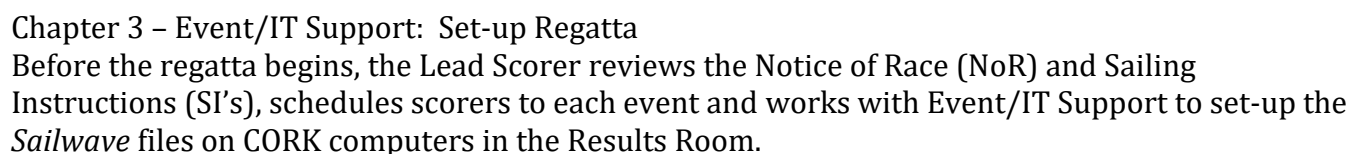
Before and during a CORK event, members of the Results Team must work with two groups of volunteers – Event Services (i.e. the organizing authority) and Race Committee. The Chief Scorer typically recruits members of the Results Team, and may assign them to specific events. However, scorers may volunteer for specific events on the CORK website, or be recruited by a Race Officer who conducts the races.

In addition to the Race Committee, the Results Team works collaboratively with four other teams before, during and after each day's racing and at the end of the regatta. A good understanding of the responsibilities of each team fosters teamwork which validates the race information and results for each course.

¹ Large fleets of competitors may be split into groups: In a Qualifying series, groups of boats compete in 'flights'; in the Final series of races, competitors are assigned to 'fleets' - see Chapter 5 for details.

The CORK Results Management Manual is organized to make it easy for a first-time scorer to follow the work required in each of the three phases of the scoring experience – preparing for scoring (chapters 3 and 4), scoring (chapters 6 and 7), confirming final results (chapter 8).

CORK Scoring System



Chapter 4 –Registration: Import Competitors



After the *Sailwave* files are configured, the Lead Scorer will import competitor data from *CRMS* and prepares lists of competitors for use by the Race Committee on-water.

Chapter 5 – Managing Split Fleets: Qualifying and Final Series

Each day of a qualifying series of races, Senior Scorers set-up flight assignments, enter and score finish data as *one group*. At the end of the qualifying series, the Senior Scorer assigns fleet assignments and scores each day's results *by fleet*.

Chapter 6 – Race Committee: Score Races

Each day, the Race Committee runs races on-water and transmits finish positions for each race to the Results Team. On-shore in the Results Room, the Scorer assigned to that course:

- inputs each competitor's finish position for the race into a *Sailwave* file;
- scores the race by tapping 'rescore' - a *Sailwave* button which calculates the number of total points for each competitor²; and
- publishes results to the website and posts on the official notice board.

Chapter 7 – Enter Scoring Changes: Jury / Protest Committee

Each day, the Scorer may need to enter penalties and other scoring changes related to scoring inquiries, racing rule infractions or decisions received from the Jury related to protest or redress hearings.

Chapter 8 – Event / Media & Marketing: Finalize Results

Every day, posts on social media alert sailing fans about the lead competitors and sailing conditions affecting competition. At the end of the event, the Lead Scorer finalizes results and prize tables for the awards ceremony.

2.3 Results Team Position Descriptions

Chief Scorer

The Chief Scorer oversees the work of the Results Team providing an external interface between CORK's Events and Operations Groups. The primary responsibilities of CORK's Chief Scorer are: Review event schedule and participate in CORK Operations meeting during the winter months; Plan and oversee recruiting and training of volunteers for the Results Team; Schedule the results teams needed for each CORK event;³

² *Sailwave* processes a series of finish data by calculating the number of total points for each competitor, then applying penalties, discards and retirement codes to the races to show each competitor's place in the event. For the first race of a series, the Scorer would tap the Score Series button in *Sailwave*. A key feature of *Sailwave* is its flexibility to be configured to calculate unusual class rules, handicaps or discarded races into total series results.

³ Typically, one member of the Results Team will be assigned to a specific course and one computer to work with exclusively throughout the event. This means that an event with three courses would require a minimum of three scorers.



Provide on-site training and mentoring to all scorers as needed.

Lead Scorer

The Chief Scorer is often *but not always* the Lead Scorer for an event. The Lead Scorer is the primary Results Team contact for a specific event, is expected to be on-site for the entire event and is responsible for setting up the scoring system in *Sailwave*. The Lead Scorer to effectively carry out the following responsibilities before and during a CORK event:

- a) Work with Event Services to set-up of the Results Room;
- b) Work with IT Support to set-up the Scoring System and configure *Sailwave* files;
- c) Export Competitor Data from CRMS & Imports to *Sailwave*
- d) Participate in Event Management meetings every morning to identify any operational issues that could affect the quality of Results;
- e) Provide daily briefings at each morning's All Volunteer Meeting;
- f) Connect with the RO and the Finish Recorder on each course to confirm the process for sending and receiving real-time race results as each race is completed;
- g) Oversee the scoring function for the event including assigning courses, classes and related responsibilities to scorers;
- h) Receives and investigates Scoring Inquiries, Jury Decisions and other changes to competitor data or race results;
- i) Directs entry of Scoring Changes by relevant scorer; and
- j) Collects and tabulates event performance data and prepares report.

Scorer

Each Scorer is expected to know how to score races for the course that has been assigned to them by the Lead Scorer. The Scorer's responsibilities are as follows:

- a) Assist with Results Room Set-up
- b) Receive Start Line data by email from course Finish Recorder, prints and forwards to Event Services for posting to social media;
- c) Receives race Finish data from course Finish Recorder, prints for input to *Sailwave*;
- d) Enter Finish positions on *Sailwave* for all the classes on his/her assigned course;
- e) Publish, print and post Provisional Results on the CORK website and Official Notice Board after each race;
- f) Enter approved Scoring Changes on *Sailwave* for the assigned course & classes; and
- g) Create and file *Sailwave* backups and related course paperwork appropriately.

Senior Scorer

The Senior Scorer is responsible for setting up and scoring a qualifying & final series (split fleets) and have an understanding of the advanced features of *Sailwave*.

Accomplished Senior Scorers will be able to set-up and score all the classes on his/her assigned course which may have one class with split fleets and another class with a single series. On the



other hand, when CORK hosts a major World event where there are many boats competing in a qualifying and final series of races on one course (e.g. Laser Radial Youth Worlds), only one Senior Scorer will be required.

2.4 Skills and Qualifications

Certain skills and attributes are needed to be able to score successfully. All scorers should have good computer skills and enough experience with *Sailwave* to score a basic regatta, i.e. one-course, one-class. An ability to focus and attend to details in an open environment, and a solid understanding of Windows operating system are desirable assets for all scorers.

Familiarity with sailing is also a desirable attribute for scoring at CORK. Many good scorers have little or no experience with sailboat racing but wish to volunteer because of an interest in this sport. Many other scorers are familiar with another aspect of CORK and interested in contributing in another way.

The Lead Scorer is expected to have several years of experience scoring regattas and a strong understanding of *Sailwave*. As a minimum, the Lead Scorer must know how to set-up and manage *Sailwave* for a multi-course, multi-class regatta with a qualifying and a final series.

2.5 Experience and Training

As indicated in Chapter 1, the CORK Results Management Manual is the basis for recruiting and training volunteers who want to join the CORK Results Team. To further enhance the volunteer experience and ensure the timely and accurate collection, processing and communication of racing results, CORK provided two training seminars:

Basic Scoring

This workshop is designed to prepare a CORK volunteer to take on the Scorer's responsibilities as described in Chapter 6. Basically, the Scorer will learn how to enter race data to the appropriate *Sailwave* file, publish the scored race results on the CORK event website, create and file backups in the appropriate folders and address scoring changes. Pre-requisites for this training are: good computer skills, and attention to detail however familiarity with sailboat racing are desirable assets.

Advanced Scoring

This workshop is designed to prepare a Scorer to take on the Senior Scorer and Lead Scorer's responsibilities. The Scorer will learn how to set-up and score a series of races in different classes or starts on one course. Special attention will be given to the set-up and management of scoring a qualifying series then a final series of a large class of boats including flight and fleet assignments, working with technical rules, managing known *Sailwave* issues, etc. Pre-requisites for this



training are a combination of a few years of experience on the CORK Results Team and completion of the Basic Scoring course.

The CORK Results training program was designed to help volunteers progressively gain experience in scoring at CORK. Both training courses are offered early in the season before a CORK event so that the volunteer will have an opportunity to put learning into practice as soon as possible. The training is provided at no charge to volunteers however each workshop participant is expected to sign-up for at least one event at CORK.

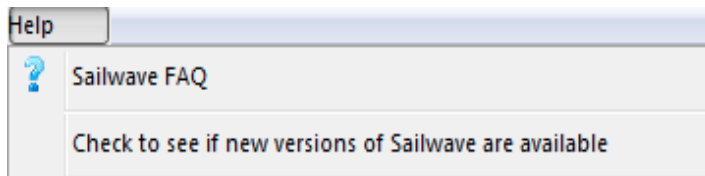
Scorers are encouraged to become more familiar with *Sailwave* by signing up to the *Sailwave* user group on the Sailwave site. Questions posted there are quickly answered by either the authors of the product or by the advanced users of the community (See www.sailwave.com Support on the website).

2.6 *Sailwave* Basics

Successful scoring at CORK depends on the accurate set-up and configuration of the scoring system and attention to detail when scoring and publishing results on *Sailwave*.

Upgrade Sailwave

Although the IT Support team should have managed any updates to CRMS, it's a good practice to check to see if new versions of *Sailwave* are available prior to doing any set up of the software by using the **Help->Check** functions in *Sailwave*.

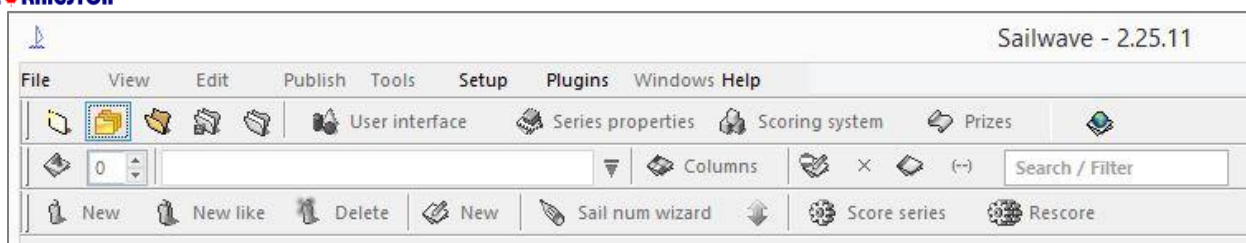


The software will contact the *Sailwave* web site server and indicate if a new version is available on <http://www.sailwave.com/category/sailwave>

Tip: Ensure that all PC's use the exact same version of *Sailwave* to avoid corruption of the results.

Sailwave Toolbar

Before embarking on the scoring journey, especially in spring after many months of absence from the Results Room, the scorer should become familiar with the various pull-down menus and functions of the *Sailwave* toolbar.



The toolbar has five 'horizontal bars' designed to ease access to the various scoring functions. To the right of the Sailwave logo in the top bar typically shows the name and location of the file. There are nine functions in the second bar accessible through pull-down menus, but typically the scorer uses the first six (from left to right):

File – Create new, open existing files and import competitors' lists from a *.csv* file – the suffix indicating data that can be transferred into *Sailwave*. Shortcuts to most of these functions are buttons below 'File' at the left of the third bar.

View – Access and adjust various screens such as columns of data or series properties (property bar). Shortcuts to most of these functions are buttons below at the left of the fourth bar. A *Search/Filter* box to the far right of this bar allows for selectively displaying competitors and easily find competitors should you wish to edit them.

Edit – Access and make changes to values in cells, competitors' data, races, etc. Shortcuts to most of these functions are buttons at the left of the fifth or bottom bar.

Publish – Publish on a website or print results, competitors' lists and prize tables

Tools – Access *Sailwave* functions such as 'sail number wizard', rearrange recorded places, score & rescore. Shortcuts to most of these functions are buttons at the right of the fifth or bottom bar.

Setup – Configure the series parameters and scoring system related to the event. Shortcuts to most of these functions are buttons below 'Setup' to the right of the third bar.

Becoming familiar with the core functions in the pull-down menu and the shortcut buttons on the three bars below the pull-down menu will improve the scorer's efficiency when the race data arrives at the scorer's workstation and actual data input begins. Even though there will be

Tip: Hover the pointer close to a short-cut button to see what each button icon could do.

multiple classes on each course, *Sailwave* will recognize the class when finish data is entered.

2.7 Managing *Sailwave* Files

Sailwave is memory based and only writes the file to disk when requested by the Scorer. *Sailwave* does not provide an auto recovery of files in the case of a computer failure or file corruption. Therefore, careful attention to saving and backing-up is very important. Consistent naming protocols, conventions and locations for *Sailwave* back-up and archived files ensure that results can be easily retrieved and reviewed should there be an appeal of the final results.

Naming Protocols

Before the regatta begins, the Chief Scorer will determine the appropriate naming protocols for each event in consultation with the Event Chair. The IT Support team will set up easily identifiable event folders and pathnames on the CORK server (R-drive) corresponding to the name of the event, e.g. International or OCR.

Once the regatta begins, the Lead Scorer sets-up the event scoring system and configure *Sailwave* files according to this protocol. Each event folder will have a Master file with the name of the class or classes to be scored.

A scorer is responsible for maintaining all the files for two or three fleets on his/her assigned course and workstation. He/she should become familiar with the file names and protocols before the race data arrives from the race committee.

Saving Files

After entering race data, the Scorer saves results for each race from the Master with a race number. For example, the *Sailwave* file for first race of the a Viper640 event could be named Viper640 Master R1.blw. Scorers are expected to adhere to the naming protocols for the results files assigned to them, and for creating a back-up file at the end of each day. Every *Sailwave* file is scored and saved on the C-drive of the workstation assigned to each course. Although memory-based software runs much faster, the scorer should preserve his/her Results – important CORK assets – at several points during the day.

To safeguard against data loss, the Scorer should regularly save the file to the CORK Server i.e. the R-drive. *Sailwave* prompts the scorer to save a file when a change is made with a 'Save needed' at the bottom of the results window. Saving is done easily by using the keyboard short cut of

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Tip: Avoid using the File->Save As... menu because it may overwrite the current data.

any Windows application.

Backing-up Files

A backup is a copy of a race results file that may be used to restore the original in the event the latter is lost or damaged beyond repair. At a minimum, a back-up should be created at the end of each day. For complex events such as those with flights and fleets, a backup of the *Sailwave* file should be done more frequently with a date and time included in the file name. Below are the steps for creating a backup of a *Sailwave* file:

- Save the file in the folder designated by the Lead Scorer.
- Exit *Sailwave*.
- Use File Explorer to find the *Sailwave* file.

- Make a copy of the file.
- Move or Paste the copy of the *Sailwave* file in the same folder as the Master file.
- Rename the copied file by editing the “Copy” part of the file name to the stage of data entry.
- Here are a few examples:
 - Original file :2017 North American Championships
 - Paste :2017 North American Championships – Copy
 - Rename to :2017 North American Championships – After race data entry

Tip: Create a Backup folder within the Event folder to store daily backups.

- Or to :2017 North American Championships – After race 6 flights

Archiving

An archive refers to a single or a collection of historical records specifically selected for long-term retention and future reference. It is usually data that is no longer actively used. The archiving of *Sailwave* data files is the responsibility of Event Management.

Although archived files may not be actively used, it may be called upon in the case of appeals of a Jury decision or to easily create a new series that replicates the properties of an earlier CORK event. For example, the International Optimists regatta – a complex event with many competitors in qualifying and final series – which takes place annually.

CHAPTER 3 – Event / IT Support: Set-up Regatta

3.1 Recruit/Train Scorers for Events

In the months leading up to CORK events, the Chief Scorer works closely with Operations Management and the Event Services team to identify the properties of each event scoring system and to recruit and schedule scorers each event. The number and qualifications of each scorer scheduled for each event depends on the number of courses and classes of boats on each course, the number of boats in each fleet and fleet splits (see Chapter 5 for details). If two classes of boats each on a separate course will be racing qualifying and final series for example, two Senior Scorers will need to be recruited and trained.

Below is an example of a Results Team Plan for scheduling scorers for CORK's 2019 events.

2019 Event(s)	Dates	Est. # of Boats by Class	Est. Splits	# Courses	# Event/Positions*
Laser Radial Youth Worlds	July 24-31	200 Radials	Radials by 3 @ 66-67	1	1 Senior Scorer
CORK International Optimists Soling North Americans J/22 Canadians	Aug. 8-11 (Set-up Aug.7)	25 Opti Greens 140 Opti Red/Blue/White 42 Keels (incl. 15 Etchells)	Opti RBWs by 3 @ 46-47	3	3 Scorers (1 Senior)
CORK International Canadian Youth Champs	Aug. 13-16 (Set-up Aug. 12)	130 Radials, 15 Radial 4.7s 100 C420s/i420s 28 29ers	Radials by 3 @ 43-44 C420s by 2 @ 50	3	3 Scorers (2 Seniors)
Olympic Competition Regatta	Aug. 17-20 (Set-up Aug. 16)	60 Lasers, Radials & Finns 27 49ers, 49FXs & i14's	Laser 4.7s by 3 @ 50	3	3 Scorers (1 Senior)
Laser 4.7 Worlds	Aug. 18-23	150 Laser 4.7s			
National Sea Cadets	Aug. 21-24	25 Club 420s	None	1	(None – Mentoring)
CORK Fall Regatta	Sept. 21-22 (Set-up Sept. 20)	45 Opti's 30 420s, 5 i420s 20 Lasers 50 Radials, 10 4.7s 15 Skiffs (29er, 49erFX)	None	3	3 Scorers
TOTALS		1,112 boats	4 classes split by 3 1 class by 2		13 Event Positions (5 Senior/Splits)

* Assumes that each scorer will be trained and on-duty for the entire event.

Certain classes – e.g. International Laser Class Association (ILCA) – have specific scoring protocols. *Sailwave* is particularly flexible for adapting to different class requirements and situations. When scheduling scorers, it's important to also review class rules to identify any scoring requirements – such as unique penalties or age categories – which must be configured into *Sailwave* during the set-up phase. The Notice of Race (NOR) and [Sailing Instructions \(Si's\)](#) will often refer to scoring requirements that come from the class rules.

Appropriate and realistic set-up of the regatta files on *Sailwave* is a critical to a successful scoring experience. If not set-up correctly, even accurate entry of race data could lead to incorrect results and a plethora of scoring inquiries from competitors – not a good thing!



CORK has determined that the number and type of scoring inquiries are the key performance indicators (KPIs) for each event. See Chapter 7 for information on scoring inquiries and Chapter 9 for details on performance measurement.

3.2 Complete NOR and SI

A thorough understanding of the scoring provisions in the Notice of Race (NOR) and Sailing Instructions (SI's) is needed to accurately set up a series of races. The NOR and SI's provide information – aka 'Scoring properties' in *Sailwave* – on how many races will be run, at what number of races will a result be discarded (i.e. dropped) and what scoring method and penalty codes will be applied to each course and class.

The NOR and SI's should be available long before racing begins. Typically, the Chief Scorer will prepare a summary of the scoring properties to be configured to *Sailwave* in an Excel spreadsheet called NOR & SI Review - see example below.

Sailing Instruction	Notice of Race	Comments	Scoring code	Action	Flights/Fleets	Score change race to race	Check after Jury action	Non Standard tiebreaker
August 18-23 CORK OCR / SC Seniors / Finn East Champs (3 days)								
1.3	1.3	RRS App P re rule 42						
	5	poss Qualifying & Final Series			X			
7.2	6.2	number of races (14 LD)	(DND)					
1.5, 17		Arbitration offered	ARB					
15.2		time limits / average?	TLE?					
16.8		posted prior to close protest						
18.3		discards - 5, 10						
18.4		course notice board?						
19.2, 19.4		sign-out/sign-in	CH10/CH20					
19.6			RET					

3.3 Set-up Results Room

One or two days before the regatta begins, CORK's IT Support group updates hardware and software (e.g. CRMS, *Sailwave*). At the same time, the Chief Scorer confirms passwords for access to the CORK Server, Website pathways and as well as the logos required for the event and inform the Lead Scorer. The Lead Scorer will contact members of the Results Team to advise on event information and scoring requirements, confirm assignments and availability for setting-up of the Results Office and *Sailwave* files.

Results Room Set-up involves positioning room dividers, connecting computers for as many work stations as needed for the size of event and organizing other office equipment such as boards, binders, file folders, pens and markers. File folders to receive on-water race records by fleet/class name are also set-up in the Results Room.

Appropriate filing of important Scoring System regatta documentation – both electronic and paper – promotes efficiency and contributes significantly to the success of the regatta. A well-organized Results Room considers the flow of paper from race officers and jury as they come off the water.

Easy identification of paper files folders is particularly important for checking finish data and making scoring changes at the end of each day. Each workstation should have a binder with relevant course name & fleets for filing paper documents such as Finish Sheets, Start Data, etc. which are received from the Finish Team. At the end of each day, the Scorer is responsible for filing this documentation. The course binder is an important reference for both Race Committee and Jury should scoring changes be required as a result of redress or protest hearings.

The Lead Scorer is responsible for maintaining another important reference - a binder for filing documents relating to various Scoring Changes. This binder typically has four sections:

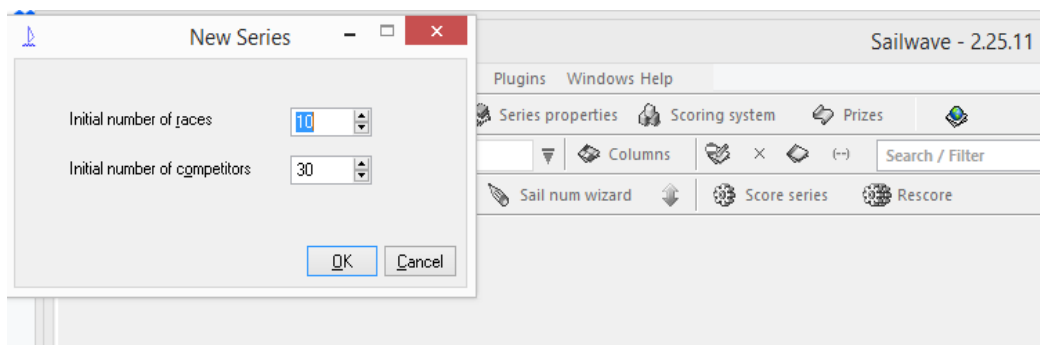
- Scoring Inquiries – Competitors who believe that they have been scored [incorrectly](#) may complete an inquiry form available from the Jury desk requesting the Race Committee to review and correct that score.
- Jury Decisions – Forms identifying [scoring changes](#) resulting from Jury decisions for on-water infractions or as a result of a protest or redress hearing/
- Sign-out / Sign-in Penalties – Registration may complete a form identifying competitors who are penalized if they do not sign-out when leaving for shore nor sign-in when they return to shore.
- Change of Information – Competitors who make a correction to registration data or change crew or equipment information will file a Change of Information form.

3.4 Set-up Series in Sailwave

Taking time to configure the regatta's scoring fields accurately on *Sailwave* is the responsibility of the Lead Scorer (or the Senior Scorer in the case of split fleets – see Chapter 5). To score efficiently however, every scorer should be familiar with the set-up process as outlined below.

From the **File** menu, select a New Series option and enter the basic data such as initial number of races and number of competitors. Do not use a pro-forma series because it may not have the correct properties unique to the event.

Since each course has different classes which may have different file requirements, new series file should be set up for each course regardless of the



number of classes on the course. Initial setup for multiple classes is the same as for a single course event, then multiple copies will be created, each saved with the name of class to be scored e.g. Laser (class).

The approach to setting up a regatta in *Sailwave* is roughly as follows:

- [Setup->Global Options](#) – configures the general user preferences for the series
- [Setup->Scoring system](#) – creates and configures the scoring systems for the series such as scoring codes (e.g. ARB for arbitration is a 20% penalty), discard profile, etc.
- [Setup->Series properties](#) – specifies how results will look when published on the website

3.5 Configure Global Options

There are several scoring system options, not part of the specific database files on *Sailwave*, which must be set up at the time of initial installation of the software and after any upgrades to *Sailwave*. These options are found under [Setup->Global Options](#). Values to use in the Global Options screen are as follows:

Startup

- Select 'Do Nothing'

View

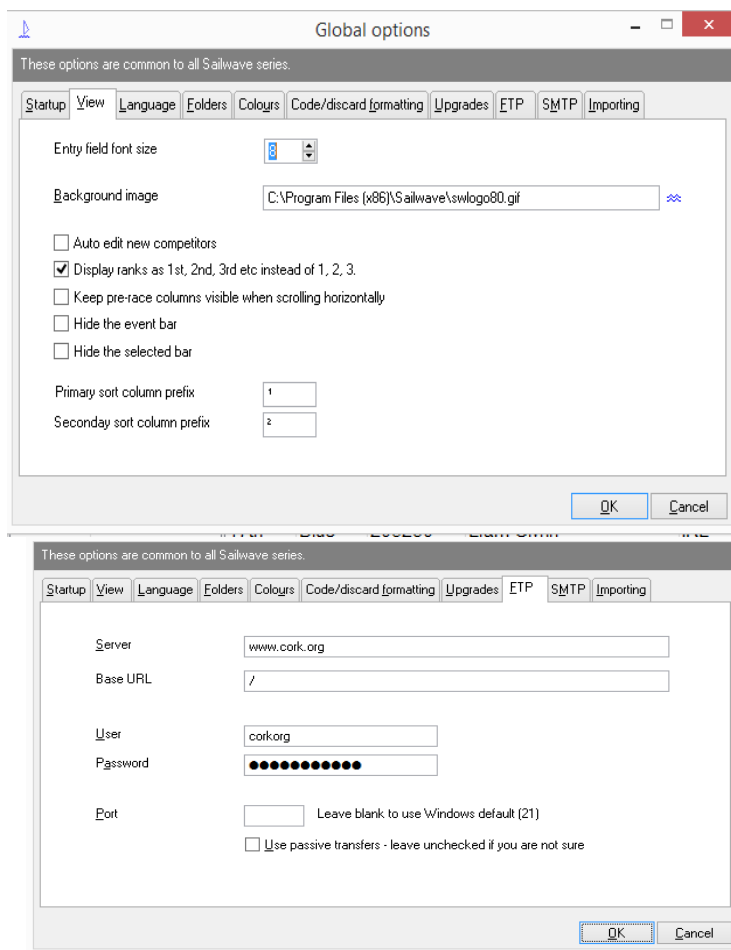
- Font size – 8pt
- Background image – set to Sailwave logo (e.g. swlogo80.gif)
- Select Display ranks as 1st, 2nd, 3rd etc. instead of 1,2,3
- Note the primary sort prefix at bottom of screen

Language

- ANSI (i.e. English)

FTP⁴

- Set to the website to which results will be published
- Each series should have its own FTP accounts to improve security of the records.
- Obtain values from **CORK IT Support Group**
 - Server – the IP address of the results FTP server
 - Base URL – the location to which results will be sent
 - Port – the IP port on the server



The image shows two screenshots of the 'Global options' dialog box in Sailwave. The top screenshot is the 'View' tab, showing settings for 'Entry field font size' (8), 'Background image' (C:\Program Files (x86)\Sailwave\swlogo80.gif), and checkboxes for 'Auto edit new competitors' (unchecked), 'Display ranks as 1st, 2nd, 3rd etc instead of 1, 2, 3.' (checked), 'Keep pre-race columns visible when scrolling horizontally' (unchecked), 'Hide the event bar' (unchecked), and 'Hide the selected bar' (unchecked). It also shows 'Primary sort column prefix' (1) and 'Secondary sort column prefix' (2). The bottom screenshot is the 'FTP' tab, showing settings for 'Server' (www.cork.org), 'Base URL' (/), 'User' (cork.org), 'Password' (masked with dots), and 'Port' (blank). It also has a checkbox for 'Use passive transfers' (unchecked).

⁴ File Transfer Protocol (FTP) is a set of rules used to transfer computer files between a client and server on a computer network

(typically default of 21)

- Username and Password – the login credentials for the FTP server

SMTTP server

- Use only if Sailwave will be emailing out results
- Get values from the **Event / IT Support Group**

Folders, Colours, Code/Discard Formatting/Upgrades/Importing

- Use default

3.6 Setup Scoring System

Many specific scoring requirements noted in the NoR and SI's are configured under the Setup->Scoring System menu.

Race scoring

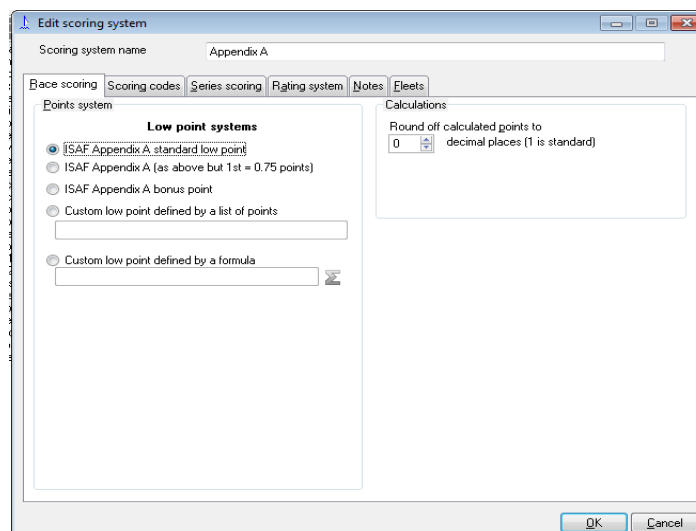
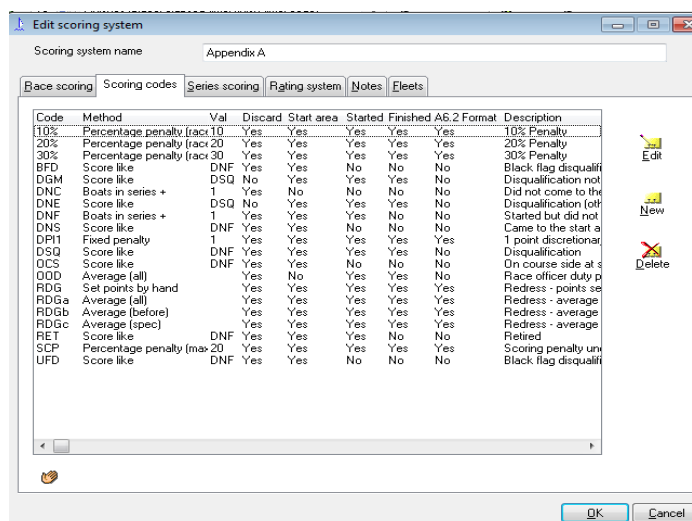
The first tab indicates the scoring method that will be used for the event which is usually provided in the first line of the Scoring section of the SI's. Typically, the ISAF Appendix A standard low point system is used but this may change depending on the event. Nothing else needs to change on this first tab.

Scoring Codes

The scoring codes will be used when entering scores for competitors who Did Not Finish (DNF), Did Not Compete (DNC), penalties etc.

Series Scoring

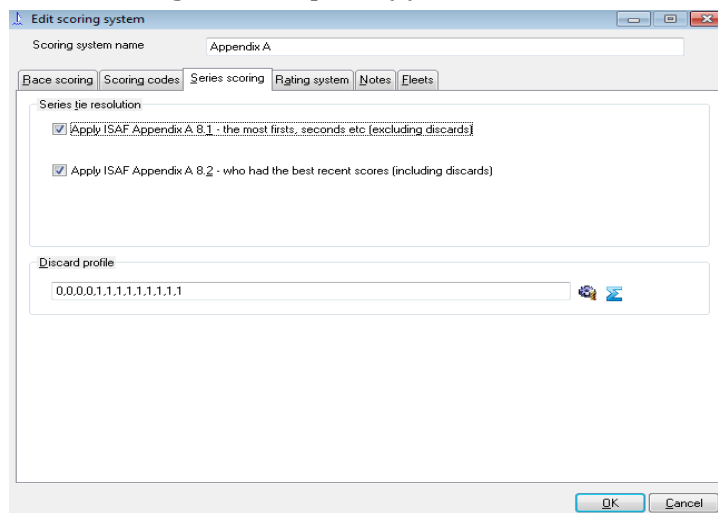
There are two values under Series Scoring tab – Series tie resolution, Discard profile. Both are used to calculate the race scores for the series. Default values for tie resolutions are as specified in Appendix A 8.1 and 8.2. Any change to these defaults would be defined in the [NoR or SI's](#)

Code	Method	Val	Discard	Start area	Started	Finished	A6.2 Format	Description
10%	Percentage penalty (racr10)	Yes	Yes	Yes	Yes	Yes	10% Penalty	
20%	Percentage penalty (racr20)	Yes	Yes	Yes	Yes	Yes	20% Penalty	
30%	Percentage penalty (racr30)	Yes	Yes	Yes	Yes	Yes	30% Penalty	
BFD	Score like	DNF	Yes	Yes	No	No	No	Black flag disquali
DGM	Score like	DSQ	No	Yes	Yes	No	No	Disqualification not
DNC	Boats in series +	1	Yes	No	No	No	No	Did not come to the
DNE	Score like	DSQ	No	Yes	Yes	Yes	No	Disqualification (of
DNF	Boats in series +	1	Yes	Yes	Yes	No	No	Started but did not
DNS	Score like	DNF	Yes	Yes	No	No	No	Came to the start a
DPI1	Fixed penalty	1	Yes	Yes	Yes	Yes	Yes	1 point discretionar
DSQ	Score like	DNF	Yes	Yes	Yes	Yes	No	Disqualification
OCS	Score like	DNF	Yes	Yes	No	No	No	On course side at s
ODD	Average (all)	Yes	No	Yes	Yes	Yes	No	Race officer duty p
RDG	Set points by hand	Yes	Yes	Yes	Yes	Yes	Yes	Redress - points se
RDGa	Average (all)	Yes	Yes	Yes	Yes	Yes	Yes	Redress - average
RDGb	Average (before)	Yes	Yes	Yes	Yes	Yes	Yes	Redress - average
RDGc	Average (spec)	Yes	Yes	Yes	Yes	Yes	Yes	Redress - average
RET	Score like	DNF	Yes	Yes	Yes	No	No	Retired
SCP	Percentage penalty (max 20)	Yes	Yes	Yes	Yes	Yes	Yes	Scoring penalty uni
UFD	Score like	DNF	Yes	Yes	No	No	No	Black flag disquali

Discards

The 'Discard profile' is at the bottom of the Series scoring tab. The point(s) at which the discarded races and the number of drops is identified in the SI's. To set the profile, indicate series of 0's to indicate how many races have 0 drops, following by 1's to indicate how many races have 1 drop, then 2's for how many races get two drops. Here is an example for a regatta with 13 races and allowing for one drop after 5 races have been run.



App LE Addendum C

The options under this tab are used when CORK runs a qualifying and final series. Since this happens frequently at CORK, set-up and scoring details are provided separately in Chapter 5.

3.7 Setup Series Properties

The **Series properties** fields define how the results will look when published on the CORK website. To provide a professional image, it is important that values such as the event & venue name, website and burgee, Sailor ID and nationality are set up carefully using high quality and appropriately proportioned images.

The results and competitors lists published on the web show both CORK and sponsor logos. The logos are filed within the website directories – <http://www.cork.org/logos>. To publish correctly on the CORK website, these files will have to be stored in the directory where the Sailwave race file (the ".blw" file) is saved. Before beginning the Series Properties set-up, obtain the folders, path and file names from the [CORK Event/IT Support Group](#).

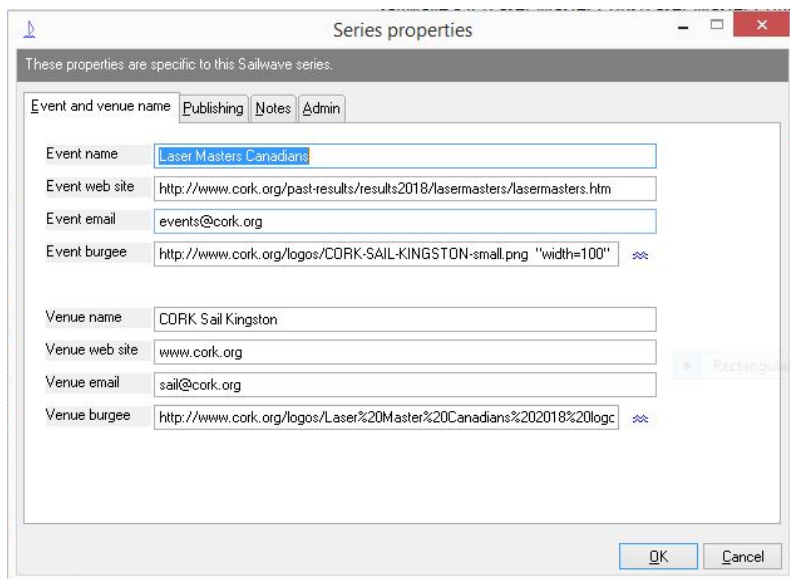
Follow the steps below to set-up the Series properties:

Event and Venue Name

- Event – Enter the logo filenames with the full directory and folder path. As mentioned above, these files must be stored in the *Sailwave* race file folder.
- Event Burgee – Points to the properly formatted image that you want to appear on the upper right corner of anything published
- Venue – Names and image/logo used to represent the host venue (e.g. CORK)

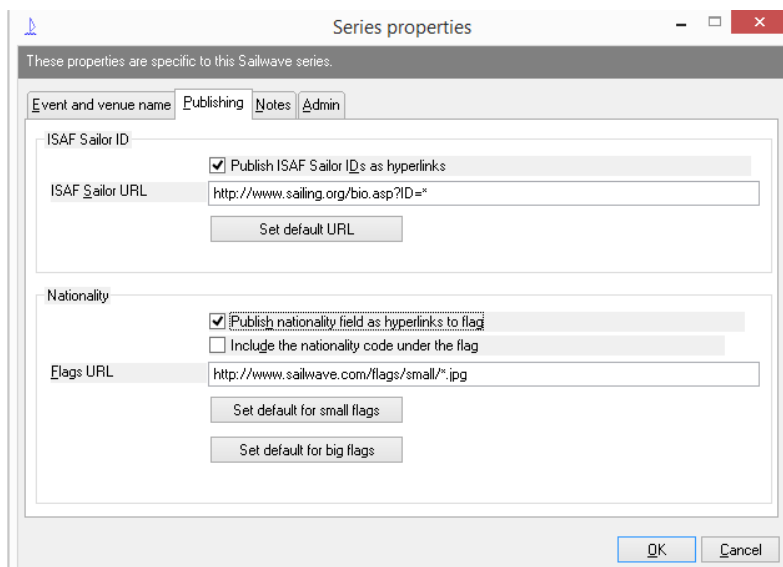
- Venue Burgee – Points to the properly formatted image/logo that you want to appear on the upper left corner of anything published.

Note that the logo filenames are followed by a space and then a “width=xxx” command where xxx refers to the number of points of width. There may be some trial and error using the “width = __” command to make printouts look balanced on the printed results. The width assigned to the logo can also refer to a percent of the page.



Publishing

Many regattas hosted by CORK are sanctioned by World Sailing (formerly ISAF). Check-off or add values in the ISAF Sailor ID section to ensure access to details about the sailors in the published results. Also, check-off Publish nationality field as hyperlinks to flag. The default should be set for small flags.





CHAPTER 4 – Registration: Import Competitors

4.1 CRMS Export

Information about competitors that have entered and paid a fee to race at a CORK event is maintained in the CORK Race Management Software (CRMS). CRMS is used to register competitors and manage registration data including changes in crew and equipment that may occur during the regatta. At a point before the regatta starts, competitor data must be exported from CRMS and imported into the *Sailwave* file(s) to complete the preparation stage of the scoring system.

It is important to work closely with the Registration Team located in the CORK office the day before the event. Although many competitors register and pay online, there are often late entrants or last-minute changes to crew or equipment the day before racing begins. The Registration Team will advise when most of the competitor data in CRMS is complete and ready for export.

If the CRMS export is done too early, the Scorer will need to manually add late entrants or last-minute changes to crew or equipment to the *Sailwave* file(s). All subsequent changes to competitor data must come from an official Change of Information request sheet from Registration in the CORK office. No changes to competitor info can be done by the Results Team until this form is received from Registration and filed in the Scoring Change binder. This procedure ensures that both CRMS and *Sailwave* systems are kept in sync throughout the regatta.

Note: An exception to the above could be a boat that doesn't meet the requirements of entry, e.g. measurement discrepancy. That boat must be removed from *Sailwave*, but probably should stay in CRMS for record keeping. It is important to confirm this information with the Registration before removing a competitor.

4.2 Run Master Sailwave File Generator

To obtain the competitors data in a format useful to *Sailwave*, the exported file must be manipulated post export from CRMS to get it into the format required for import into *Sailwave*. The steps involved in setting up the competitors list are as follows:

- 1) Identify the appropriate .csv file exported from CRMS from the CORK Server (R-drive) as stipulated by Registration in CORK office
- 2) Open the .csv file in Excel

- 3) Find the **Master Sailwave File Generator**⁵ and open it in Excel. This file has a Macro that remaps fields from the columns used in the CRMS Export to the columns to be used in *Sailwave*.
- 4) Clear the data from the existing fields in the File Generator if they are populated.
- 5) Copy the appropriate export data from the .csv file (step 1) into the File Generator spreadsheet and enable the Macros.
- 6) Type 'Control - I' to remap the CRMS fields to those needed by *Sailwave*.
- 7) Open a Notepad file.
- 8) Paste the CRMS fields into the Notepad file (Ctrl-V) (The required data is already on the virtual clipboard.)
- 9) Save the Notepad file with a .csv extension.
- 10) Go to *Sailwave* and click on the menu item **File->Import Competitors from a CSV file** and import the file created in step 7. This will populate the main window of *Sailwave* with the competitor information.
- 11) Examine the resulting data and complete remapping data fields if needed but normally they are already set up fine.

4.3 Complete Data Fields

Update Column Headers

Column headers in the competitor list in *Sailwave* will need to be changed for fields to match the values of the data imported. For example, the Medical column in *Sailwave* might contain City data from *CRMS* so change the header name to City to help the user understand the data. Note that the internal field containing the data will still be the same as at import regardless of what the column name was changed to, so in doing publications you would need to select Medical to see the City data.

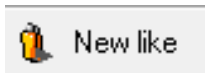
Ensure that the order of the columns from left to right conforms with CORK's preferred 'look' for published results, for example:

Rank	Nat	SailNo	Helm Name	Crew Name	Race cols – R1, R2...	Total	Net	Club	City
------	-----	--------	-----------	-----------	-----------------------	-------	-----	------	------

⁵ This Excel Macro was developed by Peter van Muyden for CORK to facilitate the mapping of fields from CRMS to *Sailwave*. It also contains logic which improves the 'look' of the results.

Adding a Competitor

To add a new competitor who registered after the import to *Sailwave*, use another competitor's entry as a template by selecting a competitor in the same fleet. Then click the 'New like' button (at the left in the bottom of the *Sailwave* toolbar) to create a duplicate of the one selected.

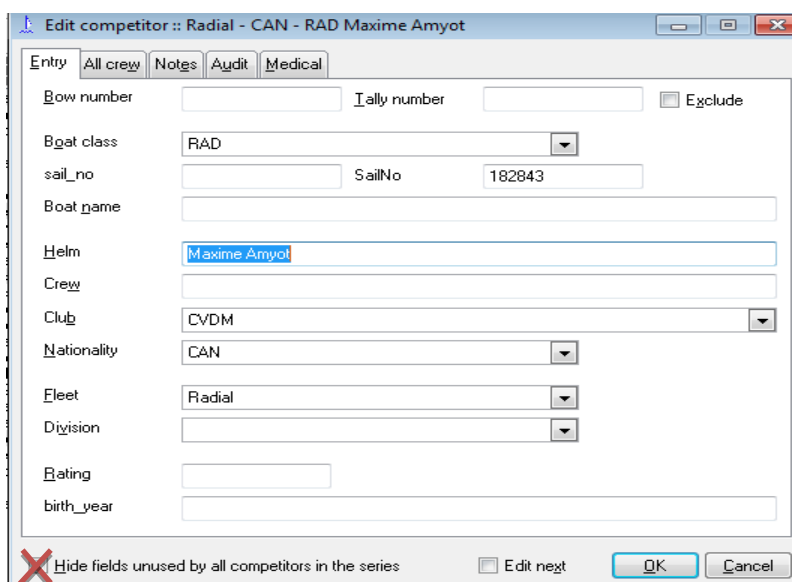


Important! Edit the information for the competitor just created immediately!

Double click on the duplicated entry and edit ALL the fields to make sure that none of the original competitor's data is used for the new entry. Take special care to edit both Helm and Crew entries.

Editing a Competitor

If a competitor Change of Information form is received, a competitor's information (e.g. Change sail number, name or fleet) may need to be edited. To edit competitor information, double click on the competitor's name and edit fields as required, e.g. SailNo, Crew Name, etc.



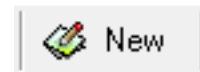
Finally, select 'Hide fields unused by all competitors in the series'. This will make it easier for editing and publishing results.

4.4 Setup Races and Starts

Set up Number of Races

The maximum number of races in the regatta, as indicated in the SI's, can now be confirmed. This is most easily done using the 'New' button about midpoint on the bottom bar of the toolbar (next to 'Sail num wizard'):

- Click the 'New' button and add the highest number of possible races amongst all the fleets and then add two more to allow for any races that might have to be re-sailed, i.e. if the Laser Radials are scheduled for 10 races, add 12 Races.
- Uncheck the View->Hide all un-sailed races menu item so you can see the races that you just added.



Set up the Starts for the Races

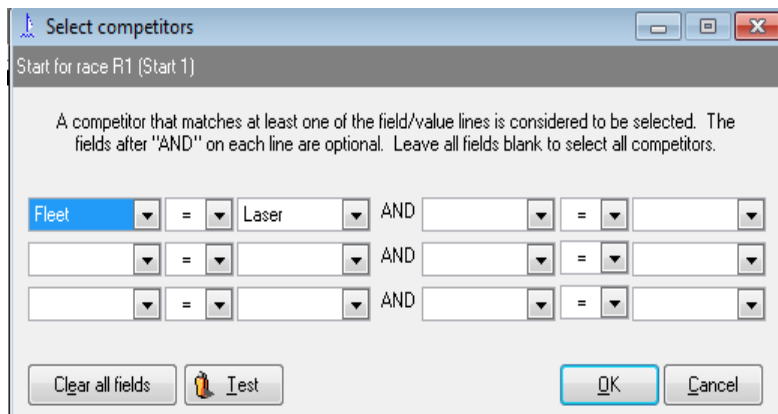
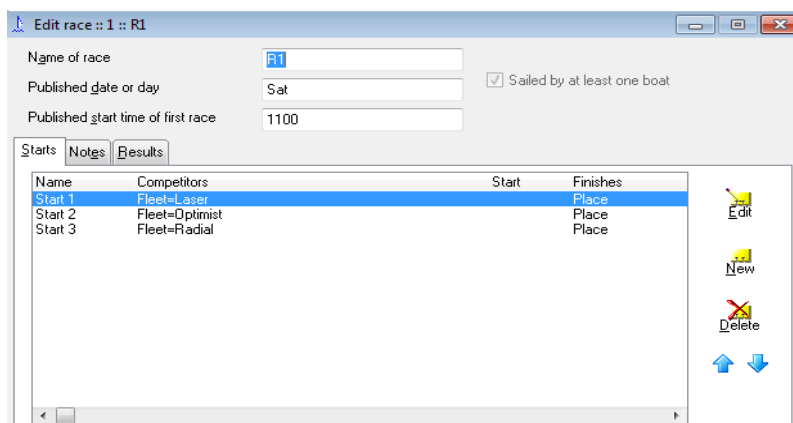
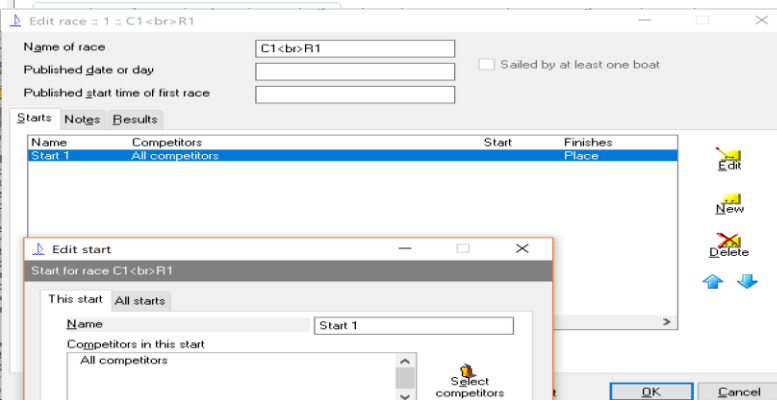
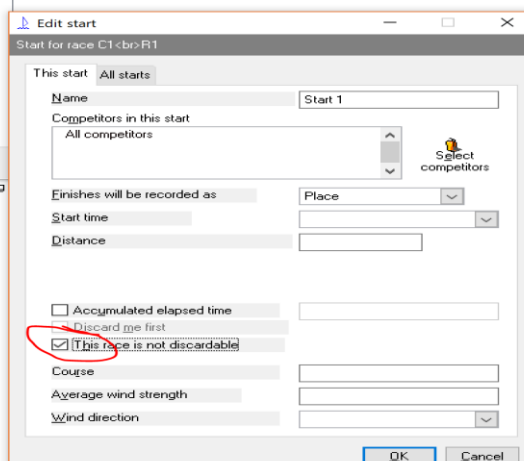
Any single racing course at CORK may have several 'starts'. If there are few boats in two similar classes (e.g. i420, C420), they may be combined in one file with two starts (one per class). A 'start' may be named for the class racing in a regular series. Two or three 'starts' may also correspond to the same class which has been split into flights in a qualifying series. For example, it is common to have one start (e.g. i420) and a split class of two starts (e.g. C420) on a single race course at CORK. See Chapter 5 for details on setting up and scoring a split series.

To set up the first race, we first need to add competitors to the race. This is done by using the R1, R2 etc. columns in main window.

To set up a start:

- Right Click R1 and select Edit Race.
- Enter a Name and day for the race (we will enter time later once we have results).
- Click the New button in the Starts section and add a start.
- Select Competitors for that fleet using Query menus (e.g. Fleet = Lasers).
- Leave the name as Start 1.
- Repeat creating a new start for each fleet sailing on your course for the first race.

Note that 'Starts' for the other races can be copied from the Starts setup for Race 1. To do this, select Edit race for R1 and use the Copy Starts box to add the Race that you want to copy the R1 starts to. It is important to understand that you

are copying the starts from R1 to a new race.

Edit a Start

Occasionally, the SI's may specify that certain race results or starts cannot be discarded, e.g. a distance race. The window below shows how to make a race 'not discardable'.

Backup Master File

Save the *Sailwave* file at this point and make a Master copy to have a backup should any of the following steps cause problems. Confirm with Lead Scorer for the proper location and names for files for your regatta.

Set up Printer

Make sure the default printer from the **Windows Start Menu -> Devices and Printers** is set to the Kyocera printer designated for scoring and set it up to print in black and white. The default printer may change from year to year or event to event, so check with the IT Support group before completing this step.

4.5 Scratch Sheets

A scratch sheet is a list of competitors with sail numbers by course and class which is updated to reflect changes in Registration. A separate scratch sheet for each class is required, sorted in ascending sail number order by clicking on the title of the 'SailNo' column.

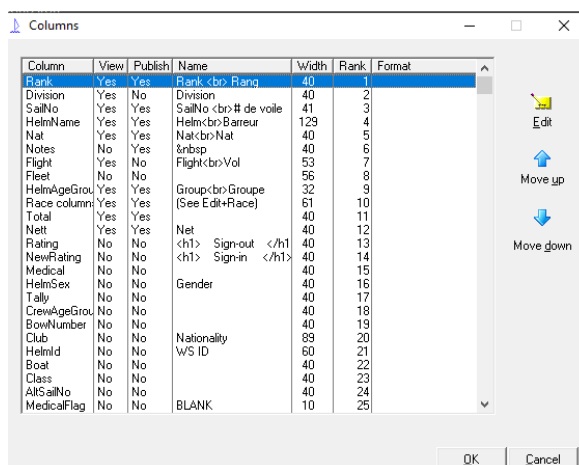
Competitor List

To create a competitor list in *Sailwave*, first select data fields that you want on the list from the **Columns** menu - see example opposite.

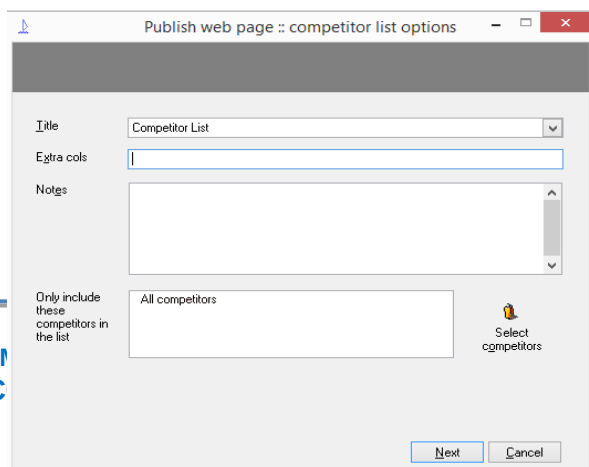
This is done by right-clicking on the relevant column title – e.g. SailNo, HelmName – for a pop-up menu that allows you to choose to view the content data on screen and when publishing.

Next, select **Publish -> Competitor list ...** from the *Sailwave* pull-down menu to enter desired the competitor list options:

- Change the 'Title' field to display the Class name and date.



Column	View	Publish	Name	Width	Rank	Format
Rank	Yes	Yes	Rank Rang	40	1	
Division	Yes	No	Division	40	2	
SailNo	Yes	Yes	SailNo # de voile	41	3	
HelmName	Yes	Yes	Helm Barreur	129	4	
Nat	Yes	Yes	Nat Nat	40	5	
Notes	No	Yes	 	40	6	
Flight	Yes	No	Flight Vol	53	7	
Fleet	No	No		56	8	
HelmAgeGrou	Yes	Yes	Group Groupe	32	9	
Race column	Yes	Yes	(See Edit+Race)	61	10	
Total	Yes	Yes		40	11	
Nett	Yes	Yes	Net	40	12	
Rating	No	No	Sign-out	40	13	
NewRating	No	No	Sign-in	40	14	
Medical	No	No		40	15	
HelmSex	No	No	Gender	40	16	
Tally	No	No		40	17	
CrewAgeGrou	No	No		40	18	
BoatNumber	No	No		40	19	
Club	No	No	Nationality	89	20	
HelmId	No	No	WS ID	60	21	
Boat	No	No		40	22	
Class	No	No		40	23	
AllSailNo	No	No		40	24	
MedicalFlag	No	No	BLANK	10	25	



Publish web page :: competitor list options

Title: Competitor List

Extra cols:

Notes:

Only include these competitors in the list: All competitors

Select competitors

Next Cancel



Publish web page :: destination options

Style: Blue blocks ?

Effects: ☒ HighlightWins3, HighlightWins3v3, tablesorter ? Effects

Destination: A website using FTP Preview

Upload to a website using FTP
The web page is transferred to a remote computer using FTP. You must specify the computer details in the FTP tab of the Global options window.

Filename:
www/past-results/results2019/lyw/radial_youth_worlds_results.htm

Will be uploaded to www.cork.org...

Back ☐ Publish again Publish Cancel

- Select the relevant class from by clicking on the 'Select competitors' button

Then select 'Next' to see the 'Publish web page...' window – see next page.

At this point, select the 'Preview' button to view, modify and print the competitor list. Print the competitor's list from the 'Preview'.

Important!! Do not hit the 'Publish' button at the bottom of the bottom of this window as this is used for publishing to the web.

An example of the Competitor's List is provided below. Columns could be added for notes or for Sign-out/Sign-in sheets.

2019 ILCA Laser Radial Youth World Championships
CORK/Sail Kingston



Laser Youth Worlds Competitor List

SailNo # de voile	Helm Barreur
152994	Jordan Oszlak
156734	Ethan Edmunds
166004	Ethan Danielson
170768	Ellen Juhasz
171660	Jianui Cao
171979	Faolan Whivla
173883	Rachael Susman
176073	Mateo Maldonado
176228	Lauren Ehnol
178898	Josh Recher
180159	Rikuta Hattori
180923	Cas van de Klok
181734	Lars Kunath
182788	Noah Hastings
184429	Guillaume Labrecque
184606	Payton Dugan

For most classes, the competitor list should be prepared the evening before and made available in the area near the Results Room where Recorders pick-up the race official forms needed for on-water recording (see Chapter 6 for more information on official forms).

Unique Sail Number List

Scoring is especially challenging for large fleets with sail numbers are 6-7 digits long, e.g. Optimists, Lasers. Duplicate sail numbers may occur for boats on the same course or the same



fleet. Duplicates in the last 5, 4 or 3 digits of the sail number may occur. Often 3 or 4 numbers are all that the finish team can write down especially when several boats finish together.

A Macro-enabled spreadsheet called Unique Sailnumber is used to identify duplicate sail numbers. Unique Sailnumber gives the finish line crew a simplified list of all sail numbers showing where there are duplicates at the 5, 4, 3 and 2 digit-level. This file can be found in the CORK-scoring Dropbox file - <https://www.dropbox.com/s/kyqz7c615xhno9o/Unique%20Sailnumber.xlsm?dl=0>

The steps for producing the Unique Sail Number list are as follows:

- 1) Review the scratch sheet to identify if there are two boats with the same last 4 digits. If so, notify the Finish Team that at least 5 digits must be recorded.
- 2) Find and open the Macro enabled Excel spread sheet **Unique Sailnumber.xls**
- 3) Export from *Sailwave* via Export Series Summary to Windows Clipboard, choosing only the Sail No to export since the Finish Team only needs the numbers.
- 4) Clear the populated in the **Unique Sailnumber.xls Input Sheet**.
- 5) Paste the exported data into Cell A1 of the Scratch sheet.
- 6) Remove the field cell with the header.
- 7) Copy the data again from Scratch and paste into Cell A1 of the Input Sheet.
- 8) Enter the title in Cell C2 and hit return (e.g. CORK Fall Laser Standard).
- 9) Click Start Process.
- 10) Once it is done go to Last 4 report and print out two copies for the Finish Team.
- 11) It will highlight any numbers that duplicate for the last 4 digits.

Sign-Out/Sign-In Lists

Sign-Out/Sign-In lists are laid out in front of the CORK office for sailors to initial when they leave to compete on the race course and when they return. The signing out & in procedure is a safety precaution to ensure that any competitor that leaves to race also comes back to shore. It is required in the SI's, therefore competitors who do not sign may be penalized when scored.

The lists are typically printed by fleet and in sail number order from *CRMS* and managed by the CORK Office. The Event Co-Chair signs off on the lists and produces the penalty form used by the Results Team when scoring. Most RO's prefer the list produced by *CRMS*.

However, the Sign-Out/Sign-In list can also be produced from *Sailwave* as follows:

- 1) Create a Sign Out/ Sign in list from the **Publish->sign on-off sheet** pull-down menu.
- 2) Use the default fields that are displayed if desired. If you want it for specific fleets, use **Select Competitors** to select the appropriate fleet.
- 3) Click Next.
- 4) Publish to Destination Default Internet Browser.

5) Print the resulting web page in black and white

If a competitor does not sign-out, the CORK office will provide the Results office with a form indicating that a penalty should be applied to the competitor's first or last race that day. See Chapter 6 for more information about entering sign-out/sign-in penalties in *Sailwave*.

SIGN OUT/SIGN IN NOT COMPLETED		Date: 23 Aug '16	
Class	Laser		

	Class	Sail #		
			OUT	IN
1	Laser	173996		X
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

✓

23 Aug '16
16:40

Applied
TO RACE 8
Early Race
A-E corrected
1704
23 Aug 16 WLB

Email to: results@cork.org

CHAPTER 5 – Split Fleets: Qualifying and Final Series

CORK regattas with large numbers of competitors are often divided into a qualifying and a final series of races. There may be two to three courses where some groups of competitors are racing in qualifying series, and others in standard series. During the qualifying series, boats are divided into groups called *flights*. During the final series, boats are divided into groups called *fleets*.

It is critically important to identify which competitors are racing in qualifying series in *Sailwave* and to know how to manage each day's results carefully. Race officers assigned to a course may need to manage races of hundreds of competitors, some groups racing in qualifying and final series or split fleets, and some in a regular series. The process of assigning flights is repeated at the end of every day (after scoring penalties and other changes have been applied) for the next day's races.

5.1 Summary of Steps

In the Qualifying Series, flight assignments are done at the end of each day and flights are scored as one group (steps 1 & 2 below). After the qualifying series is completed, competitors are assigned to their fleets based on their ranked position of their flight scores. Below is an overview of the setup and scoring processes related to split fleets:

1. Setup the *Qualifying* series:

- a. Set up the Series properties.
- b. Set up the Scoring system.
- c. Create races and starts.
- d. Add the competitors.
- e. Assign **flights** for ~~the first day's races~~ all the qualifying race days.
- f. Publish the first day's flight assignments.

2. Each day of the *Qualifying* series of races:

- a. Enter the day's results.
- b. Score the series as one group.
- c. Publish the results.
- d. Assign **flights** for ~~the next day's~~ rest of the qualifying races (except at the end of the last day of qualifiers).
- e. Publish the next day's flight assignments (except at the end of the last day of qualifiers).

3. At the end of the last day of *Qualifying* series, prepare for *Final* series of races:

- a. Assign **fleets** for the final series of races.
- b. Publish fleet assignments for finals.

4. Each day of the *Final* series:

- Enter day's results.
- Score the series **by fleet**.
- Publish the results.

5.2 Setup and Scoring Flights for the Qualifying Series

The process of assigning flights is repeated at the end of every day (after scoring penalties and other changes have been applied) for the next day's races.

Setting up the Series and Scoring System

Begin the process of setting up the Qualifying Series Setup by selecting the **Setup** dropdown menu. Some functions are similar to set-up for a regular series of races. Note differences below:

Global options are unchanged from what was presented in Chapter 3.

The **User Interface...** sets up the race for the qualifying races. Check the boxes for "Extra competitor fields in Edit+Competitor", "Qualification profile", "Split Starts allowing multiple 1sts, 2nds etc." and "Appendix LE Addendum C".

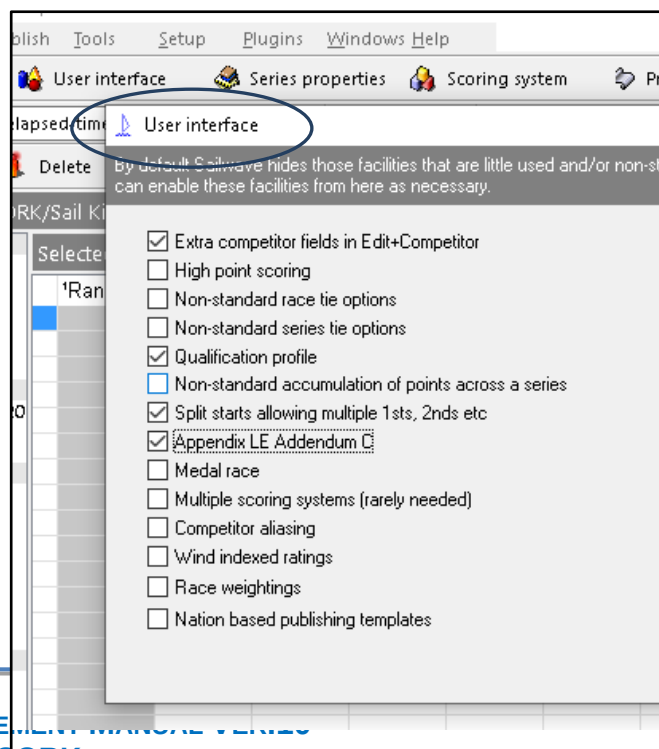
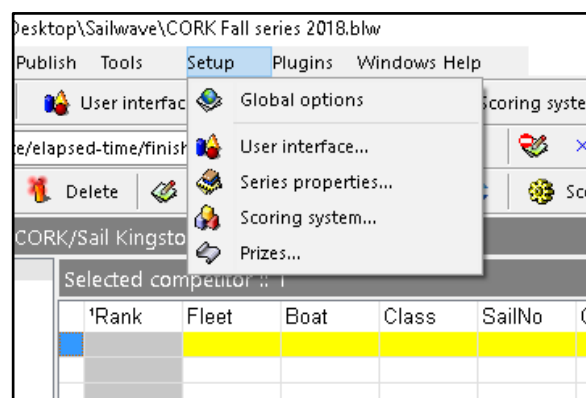
The **Series properties...** no difference from the description in Chapter 3.

The **Scoring system...** menu has many features unique to the qualifying races.

The **Prizes...** selection is similar to what is used in conventional races.

Create Races and Starts

When setting up for a qualifying series of races, the sailors are scored as one group. This means that after the first race that has three separate starts, that there will be three 1sts places, three 2nd places and so on. After the second and third



qualifying races, the placings will look more conventional with fewer shared rankings.

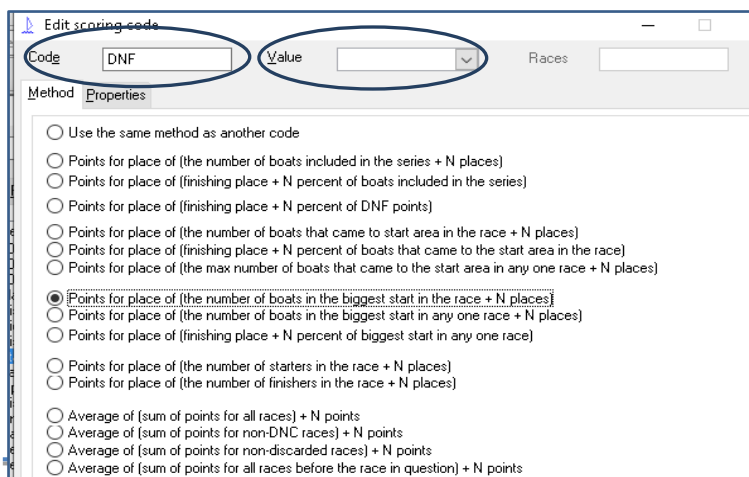
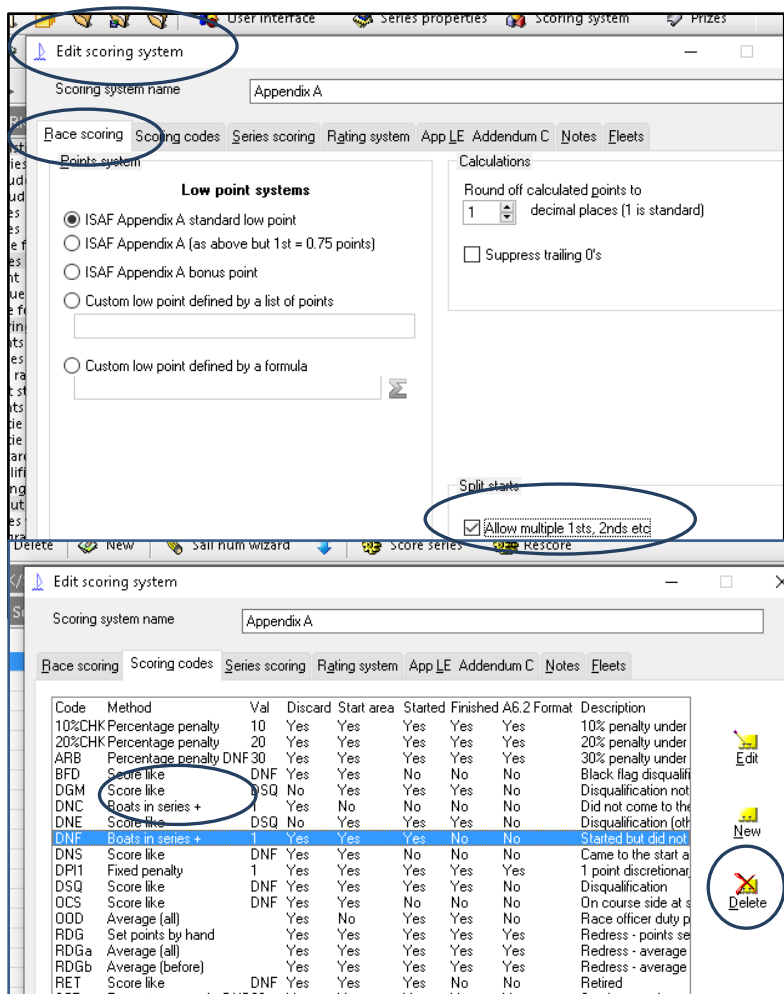
By selecting the Scoring System... will bring up a menu titled Edit scoring system with a number of tabs. In the first tab, Race scoring, select the box “Allow multiple 1sts, 2nds etc” in the lower right area in the Split starts box.

Scoring Codes

It is quite likely that each fleet in a multiple start race will not have the same number of boats. To compensate for this when scoring, boats that receive scoring penalties (DNS, DNF, or percentage penalties) have to have the penalty calculated on the number of boats in the largest fleet and not necessarily in the fleet size that the competitor is sailing in.

In the illustration at right, the **Scoring codes** have been selected. There are penalties based on the number of boats in the race – DNF, BFD, DSQ, DNE, OCS, RET etc. – that have to select the maximum number of boats from the largest race.

To do this, select the **Scoring Codes** tab and highlight the code you wish to modify, select **Edit** on the right-hand side and you are presented with the ‘Edit scoring code’ screen.



Select “the number of boats in the biggest start in the race”. Ensure that you add the numeral “1” in the value box at the top (or what value is provided by the SI’s or NoR instructions.)

In the case for a percentage-based scoring code, select the “finishing place + N percent of the biggest start in any one race”. For a 10% percentage, put the number “10” in the **Value** box at the top of the screen. To finish the code

modification, select the “OK” button to exit the menu.

It is a good idea to confirm that these scoring codes are producing the expected results during the course of the race. For the most part these selections will work but sometimes you may have used a manually inserted value to get the desired result.

Discard Profile

In the **Edit scoring system menu > Series scoring** tab, set up the discard profile as per the SI and NoR instructions. This is the same as in Chapter 3.

But there’s another step for split fleets. In the **Edit scoring system > App LE Addendum C** tab, do the following:

- Select the “This series comprises qualifying and final races” box
- Select the “do not recalculate qualifying race points when at least one finals race has been sailed” box
- Enter the appropriate number for the “The first final race is race”

Note that some classes like the Laser require a certain number of races to be completed before a final race may be dropped.

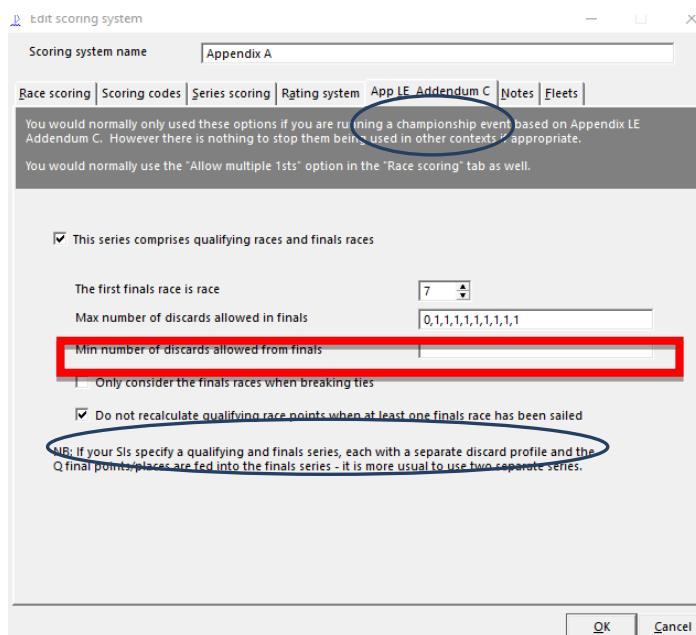
Add competitors

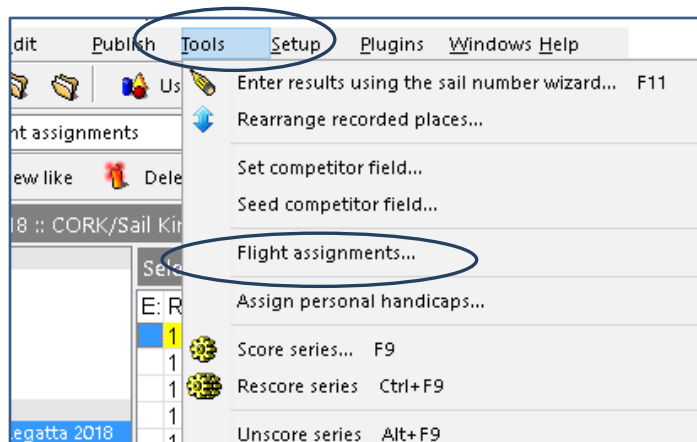
At this point, the competitors can be added to the *Sailwave* file. This process is described in Chapter 4.

Set-up Initial Flight Assignments

The initial flight setup is based on rankings provided at the time of registration or another method (i.e. last name, country) determined by the course race officer in consultation with the Event Chair. After the first day of racing, the rankings calculated by the *Sailwave* and shown in the ‘Rank’ field on results will be used to divide the boats into flights for the following day.

The number of splits depends on the number of boats registered – e.g. a total of say 148 competitors typically would be split into three flights, with each group having a fairly equal number of competitors – say, 50, 49, 49.





To set-up flights, select the **Tools** menu > **Flight assignments...** which brings up the menu at left.

In this regatta example, there will be 6 qualifying races and 4 final races. This will be the initial flight assignment, so all competitors will be selected.

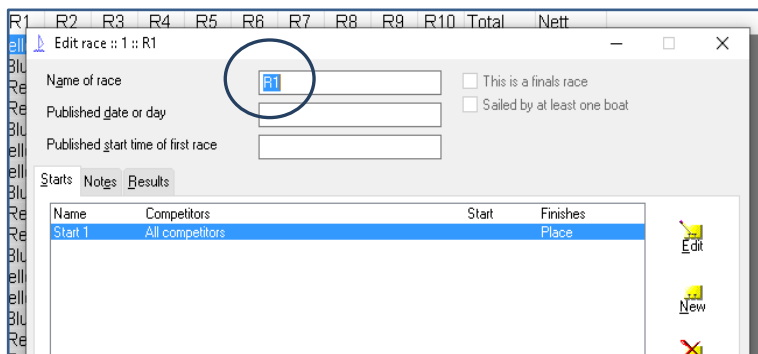
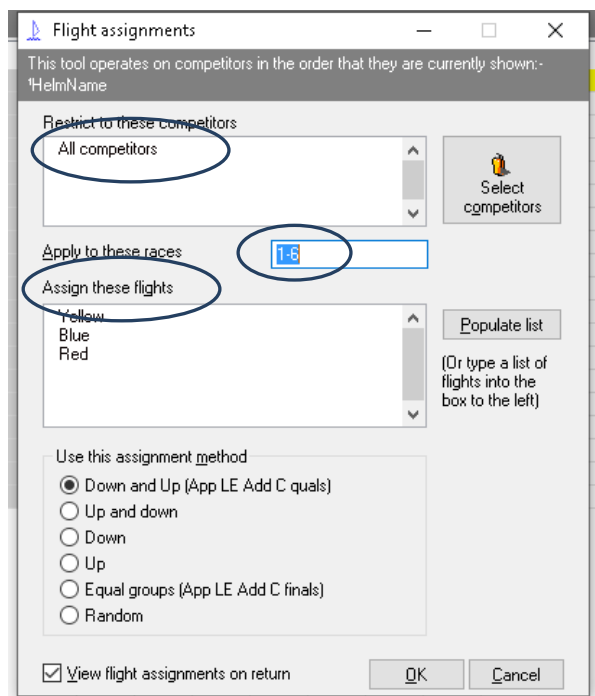
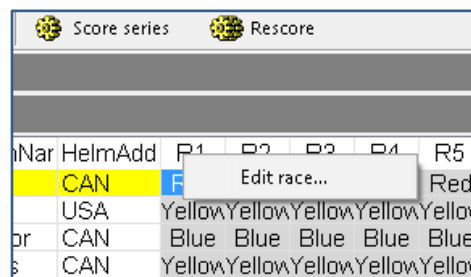
Since there will be 6 qualifying races, flight assignments are applied to races 1 through 6.

In the “**Assign these flights**” box, create a list of flights by flight colour which is typically set by the SIs or NoR. A flight list may also be created by selecting the ‘Populate list’ button, which may have the desired colours already set up as a selection.

The SIs or NoR should state the assignment method – if there is no instruction, consult with the RO to find which method they would like to use. Finally, it is appropriate to select the View flight assignments after the selection. Click on OK to complete the initial flight assignment.

Assign flights to races

At this point, races must be identified as the qualifying or final series. Place the cursor on the first race and right click to get the **Edit race...** box.



Then left click on the **Edit race...** box to see the Edit race screen above. Change the Name of race from R1 to R1/Q1 for first qualifying race.

Next, left click on the word **Edit ...** to see the **Edit start** menu.

In this example, there will be 3 starts – one each for the Yellow, Blue and Red flights.

Click on the Select competitors button to identify values for each division.

From left to right, flights are assigned starting values as follows:

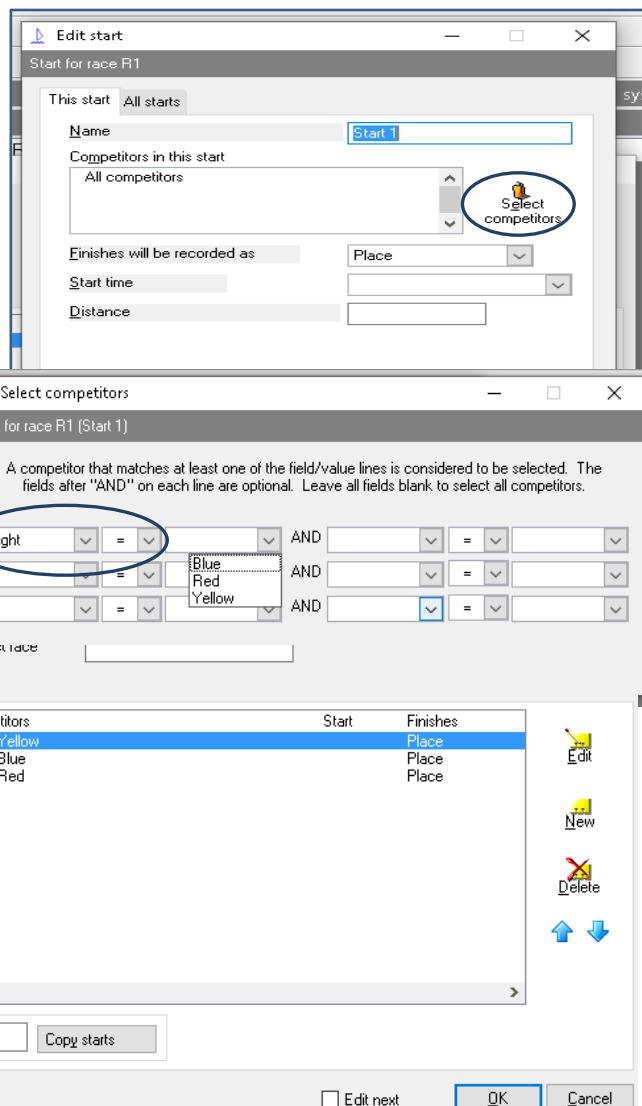
- Click on the top left down-symbol to select Flight as a category.
- Set the next field is set to “=”
- Click the next field down-symbol to select the Flight colour – in this case, select Yellow as the first start colour
- Click on OK and the first start will be entered.

Next, click on the **New** button (below the Edit button) to set up the second start. This will automatically set up Start 2 using the previous ‘Flight equals Yellow’ as a starting point. **Edit** this start by selecting competitors for the Start 2 to be Blue in this example. Click on OK to save this Start 2 setup.

Repeat the process to setup Start 3 as Red. Fill the **Copy starts** box with races 2 to 6 (2-6) or the number of qualifying races. Press the **Copy starts** button. Press **OK**.

At this point, left click on the R2 to get the **Edit race** box and left click on it. Rename the race from R2 to R2/Q2 to identify the 2nd qualifying race. Click on OK.

Use the same process to rename R3 through R6 as R3/Q3, R4/Q4, R5/Q5 and R6/Q6.



The image shows two screenshots of the CORK Results Management software interface. The top screenshot is the 'Edit start' window for race R1. It has tabs for 'This start' and 'All starts'. The 'Name' field is set to 'Start 1'. The 'Competitors in this start' section has a 'Select competitors' button circled in blue. The 'Finishes will be recorded as' is set to 'Place'. The 'Start time' and 'Distance' fields are empty. The bottom screenshot is the 'Select competitors' window for race R1 (Start 1). It contains a table with columns for 'Flight', '=', and 'AND'. The 'Flight' column has a dropdown menu open showing 'Blue', 'Red', and 'Yellow'. The 'AND' column has a dropdown menu open showing 'Place'. The 'Starts' tab is selected, showing a table with columns for 'Name', 'Competitors', 'Start', and 'Finishes'. The table contains three rows: 'Start 1' with 'Flight=Yellow', 'Start 2' with 'Flight=Blue', and 'Start 3' with 'Flight=Red'. The 'Finishes' column for all three starts is set to 'Place'. The 'Copy starts' button is visible at the bottom of the table.



competitor :: Yellow - Radial Aleks													
Class	Flight	SailNo	HelmNa	HelmAdd	Q1	Q2	Q3	Q4	Q5	Q6	F1	F2	F3
Radial	Yellow	82	Aleks	CAN	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow			
Radial	Blue	31	Alexandr	CAN	Blue	Blue	Blue	Blue	Blue	Blue			
Radial	Red	245	Chris	CAN	Red	Red	Red	Red	Red	Red			
Radial	Red	92	Fujimura	JPN	Red	Red	Red	Red	Red	Red			
Radial	Blue	85	Galen	CAN	Blue	Blue	Blue	Blue	Blue	Blue			
Radial	Yellow	15	Ian	USA	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow			
Radial	Yellow	223	Jason	CAN	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow			
Radial	Blue	445	Jean-Mat	CAN	Blue	Blue	Blue	Blue	Blue	Blue			
Radial	Red	10	John	CAN	Red	Red	Red	Red	Red	Red			
Radial	Red	94	Matthew	CAN	Red	Red	Red	Red	Red	Red			
Radial	Blue	414	Nicholas	CAN	Blue	Blue	Blue	Blue	Blue	Blue			
Radial	Yellow	123	Peter	CAN	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow			
Radial	Yellow	12	Ryan	CAN	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow			
Radial	Blue	88	Simon	CAN	Blue	Blue	Blue	Blue	Blue	Blue			
Radial	Red	1112	Stephen	USA	Red	Red	Red	Red	Red	Red			
Radial	Red	48	Steve	USA	Red	Red	Red	Red	Red	Red			
Radial	Blue	44	Trevor	CAN	Blue	Blue	Blue	Blue	Blue	Blue			
Radial	Yellow	16	William	CAN	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow			
Radial	Yellow	74	Wilma	USA	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow			

The flight assignments at this point look something like the screen at left. Note that the display of flight assignments can be selected from the drop-down list to the right of the Flight Assignments box.

Rank	Class	Flight
19th	Radial	Yellow
13th	Radial	Blue
18th	Radial	Red
10th	Radial	Red
7th	Radial	Blue
1st	Radial	Yellow
4th	Radial	Yellow
4th	Radial	Blue
1st	Radial	Red
13th	Radial	Red
10th	Radial	Blue
18th	Radial	Yellow

During qualifying series, all flights are scored as one group. This means that all flights must have completed the same number of races before the next day's flights can be assigned.

Posting Flight Assignments

During the qualifying series, flight assignments are published on the CORK website at the end of the day for the next day's races. Typically, the flight assignments sheet shows

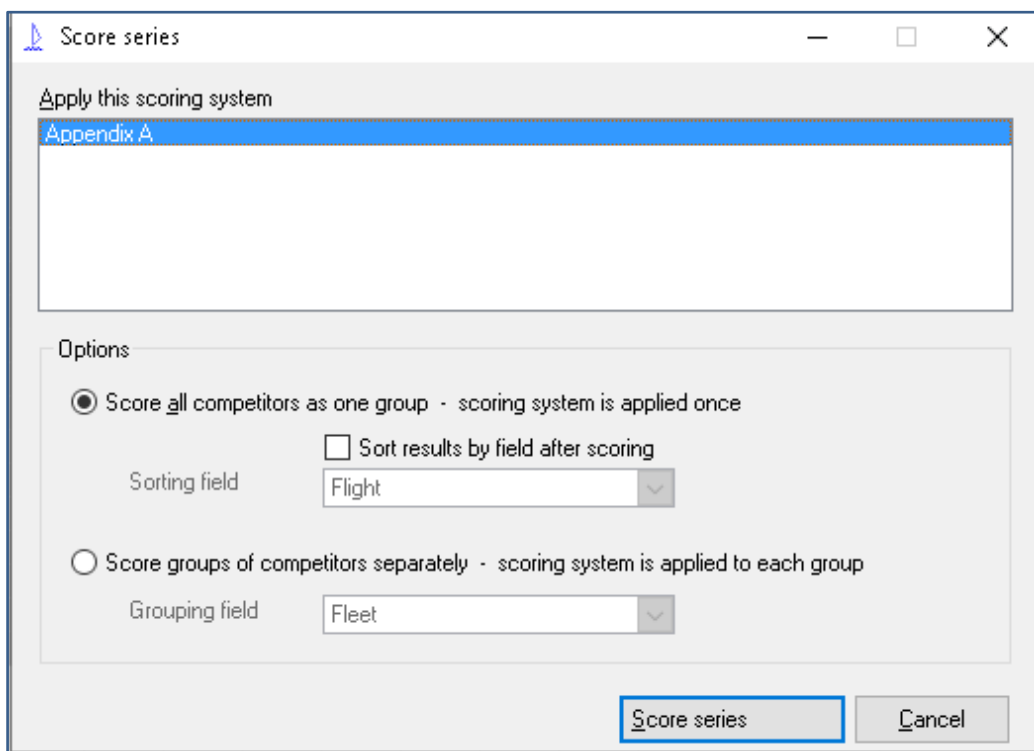
sail number, helm name, nationality, country code and flight colour. But this may vary depending on the event so it's a good practice to check with the course race officer. The flight assignments are printed from the website and posted on the official notice board. Flight assignments should never be included on the results, sign-out/sign-in sheets or other print outs. The onus is on the competitor to pick up his/her correct flag colour each day.

Scratch Sheets

A separate scratch sheet for each flight should be prepared using the Unique Sail Number Macro – i.e. where the sail numbers are presented as last 3 numbers or last 4 numbers to check for possible duplicate conflicts. Refer to Section 4.5 for the process for generating scratch sheets using the Unique Sail Number Macro.

Scoring Qualifying Races

When race data is received, the first race is entered using the Sail num wizard (see Chapter 6).



When all the race data is in, the **Score series** button is clicked. Choose the option “Score all competitors as one group” and ensure that the “Sort results by field after scoring” check box is left blank - NOT checked.

Publishing and Posting

As described in Chapter 6, after the scorer has checked the race data entered and all errors and omissions have been cleared up, publish the results on the CORK website, and post paper copies for the official notice board and the Results Room results board. Ensure that the published results have the identifying fields that are requested by CORK and the boat class, using the logos as required. The presentation may also have the highlights on the 1st, 2nd and 3rd positions.

Reassigning Flights

The process of assigning flights is repeated at the end of every day (after scoring penalties and other changes have been applied) for the next day’s races.

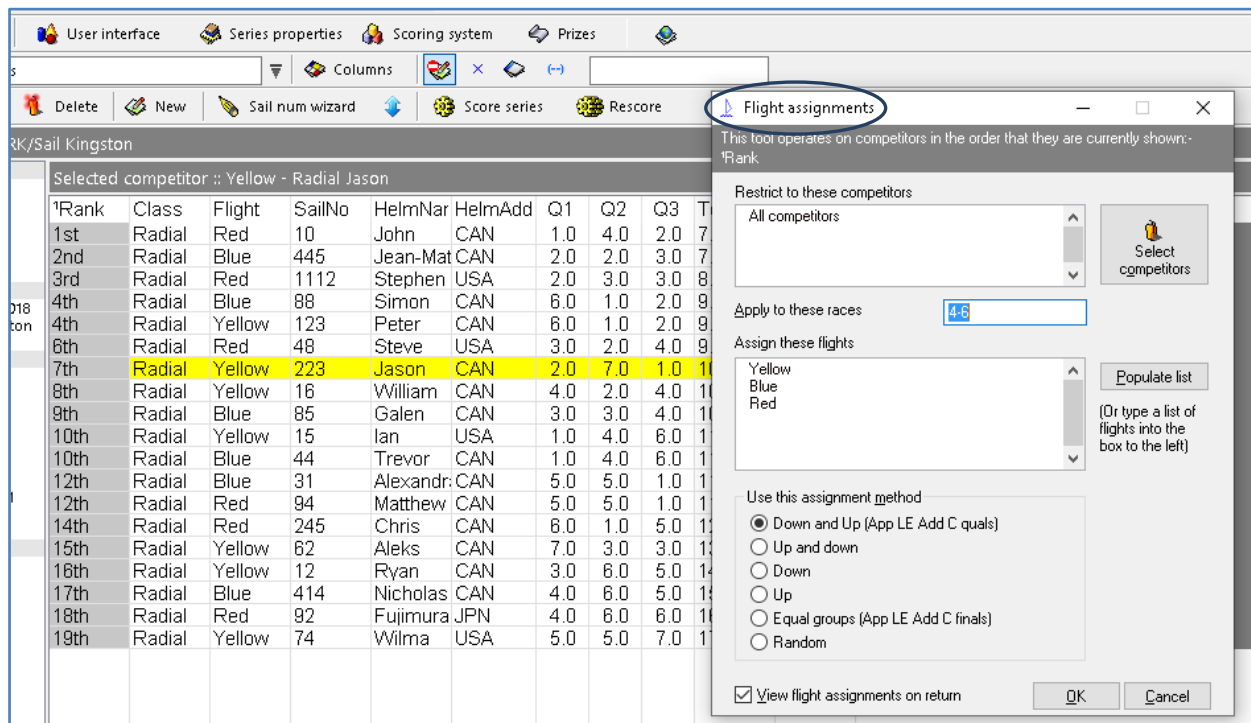
In this example, there were 3 races on day 1 and 3 more qualifying races on day 2. At the end of day 1 when the race 3 has been published and any challenges, protests or inquiries have been resolved (see Chapter 7), it is necessary to reassign the flight colours to the competitors – this time based on day 1 results.

The process for reassigning flights is to:

- Click on **Rescore** or sort by Rank – the results should be the same.

- Using the **Flight assignments** selection from the **Tools** drop down menu, select all competitors. The new flight assignments will apply to the next day races, races 4 to 6 in this example.
- The same flight colours are used as is the assignment method. Click on OK.

Before leaving for the day, the scorer is expected to publish the new flight assignments on the CORK website as well as to the official notice and Results Room boards. In addition, new *Sign out/Sign in* sheets and *Unique Sail Number* lists with the new flight assignments should be prepared for pick-up by race officers the next morning.



The screenshot shows the CORK Results Management Software interface. The main window displays a table of competitors and their race results. The 'Flight assignments' dialog box is open, allowing the user to assign flights to specific competitors and races.

Selected competitor :: Yellow - Radial Jason

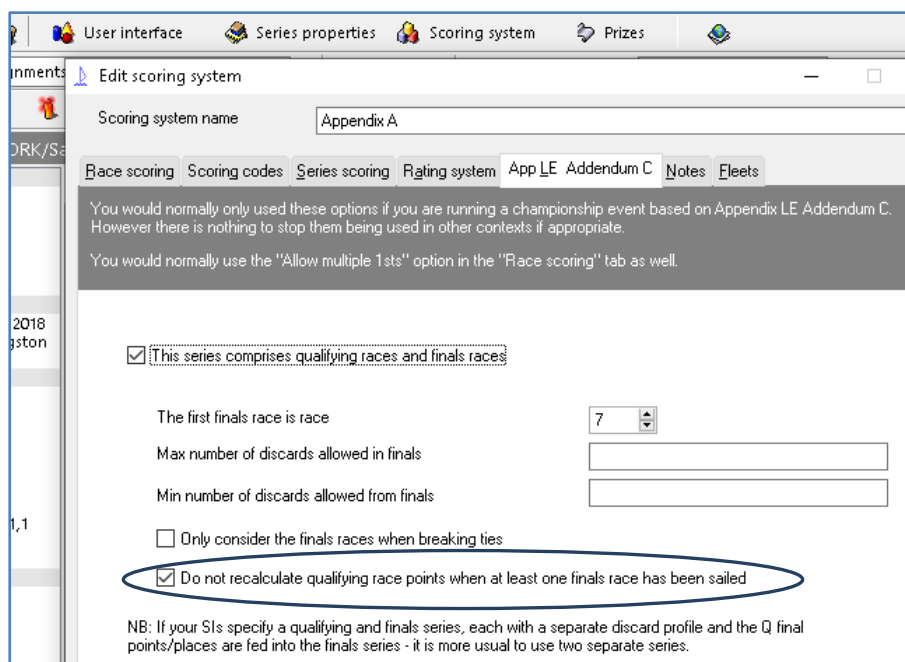
Rank	Class	Flight	SailNo	HelmNar	HelmAdd	Q1	Q2	Q3	T
1st	Radial	Red	10	John	CAN	1.0	4.0	2.0	7
2nd	Radial	Blue	445	Jean-Mat	CAN	2.0	2.0	3.0	7
3rd	Radial	Red	1112	Stephen	USA	2.0	3.0	3.0	8
4th	Radial	Blue	88	Simon	CAN	6.0	1.0	2.0	9
4th	Radial	Yellow	123	Peter	CAN	6.0	1.0	2.0	9
6th	Radial	Red	48	Steve	USA	3.0	2.0	4.0	9
7th	Radial	Yellow	223	Jason	CAN	2.0	7.0	1.0	11
8th	Radial	Yellow	16	William	CAN	4.0	2.0	4.0	11
8th	Radial	Blue	85	Galen	CAN	3.0	3.0	4.0	11
10th	Radial	Yellow	15	Ian	USA	1.0	4.0	6.0	11
10th	Radial	Blue	44	Trevor	CAN	1.0	4.0	6.0	11
12th	Radial	Blue	31	Alexandr	CAN	5.0	5.0	1.0	11
12th	Radial	Red	94	Matthew	CAN	5.0	5.0	1.0	11
14th	Radial	Red	245	Chris	CAN	6.0	1.0	5.0	11
15th	Radial	Yellow	62	Aleks	CAN	7.0	3.0	3.0	11
18th	Radial	Yellow	12	Ryan	CAN	3.0	6.0	5.0	14
17th	Radial	Blue	414	Nicholas	CAN	4.0	6.0	5.0	14
18th	Radial	Red	92	Fujimura	JPN	4.0	6.0	6.0	14
19th	Radial	Yellow	74	Wilma	USA	5.0	5.0	7.0	14

Flight assignments dialog box:

- Restrict to these competitors:** All competitors
- Apply to these races:** 4-6
- Assign these flights:** Yellow, Blue, Red
- Use this assignment method:**
 - ☒ Down and Up (App LE Add C quals)
 - ☐ Up and down
 - ☐ Down
 - ☐ Up
 - ☐ Equal groups (App LE Add C finals)
 - ☐ Random
- ☒ View flight assignments on return

5.3 Setup and Scoring Fleets for the Final Series

Continuing with the series example, the next day is last day of the qualifying series and races 4 through 6 will be run. Note that all flights must have sailed the same number of races during the qualifying series – if one flight has sailed more races than the other flights, then the ROs will be required to say which race will be dropped (or provide some other method) in order to equalize the accumulated race scores.



Before beginning the process of fleet assignment, the scorer needs to confirm that two key instructions are intact:

- Verify that the “The first finals race is race” entry is still correct in the **App LE Addendum C** tab on the Scoring system menu.
- Ensure that the “**Do not recalculate qualifying races when at least one finals race has been sailed**” box is still checked.

Assigning Fleets

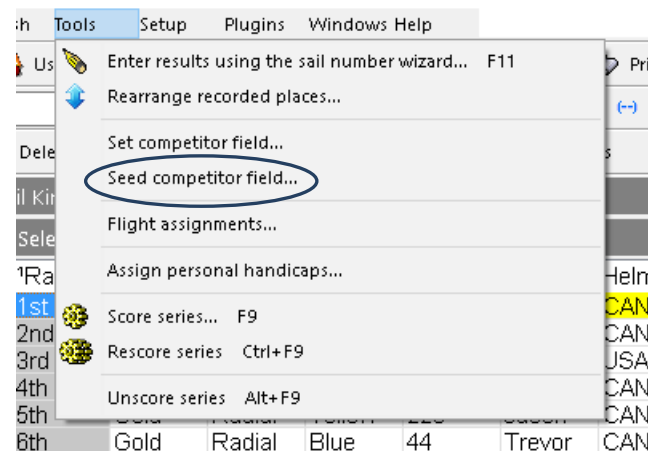
After all scoring changes resulting from protest hearings competitor inquiries have been resolved, the qualifying races are complete and the competitors are to be assigned to gold, silver and bronze **fleets** for the final day of racing.

In this example, there will again be three groups but each group will be scored as a fleet rather than as one group. There are different numbers of competitors in the finals for each fleet: Gold fleet will have 7 competitors, 6 competitors in Silver and 6 competitors in Bronze. If the numbers of competitors don’t split evenly, it’s a good rule to assign the largest number of competitors to the Gold fleet.

There is more than one way to accomplish this split – the method that will be used will first set all

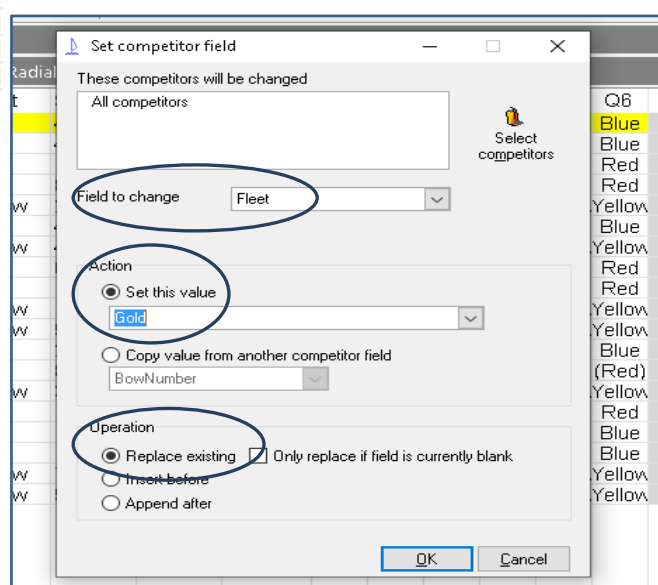
This example uses a low number of competitors for simplicity; a typical CORK regatta could have 100 or more sailors. When setting the fleets, the Gold fleet will have the greatest number of racers – a normal split for 100 boats might be 34 Gold and 33 of Silver and Bronze. Ask the RO before finalizing the numbers in each split.

competitors to Gold fleet. It will then set all competitors ranked 8 or greater to Silver. Finally all competitors ranked 14 or higher will be set as Bronze. The process is as follows:



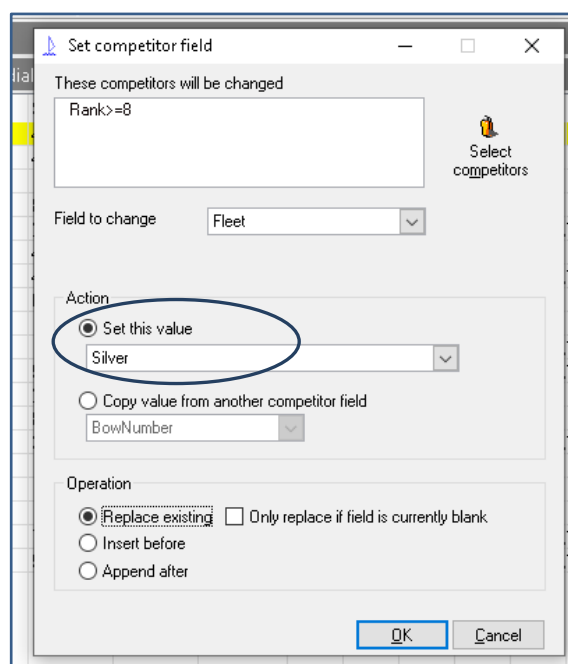
1) Click on the **Tools** drop down menu. Choose the **Set competitor field...**

2) Setup all competitors in Gold Fleet. Ensure that the **Field to change** box is set for Fleet. The **Action** box will be to set the value for Gold – it may be necessary to enter the word Gold in this



box or it may already be there from a previous race.

3) At this point, there should not be any previous entries in Fleet. But by selecting the **Operation** 'Replace existing' any unexpected entries will be cleared. Then click on OK.



The set-up for the Silver fleet is similar to Gold.

But this time it is necessary to select competitors whose rank is 8 or greater. When setting up the selection in the **Select competitor** use the drop down to get the ">=" choice. Change the Set this value field to Silver.

The setup is the same for the Bronze fleet except that the **Select competitor** choice will be 14 or greater.

All competitors will now be assigned to fleets.

Accordingly, the Fleet column

is populated with the appropriate colour and the Flight column is now redundant.

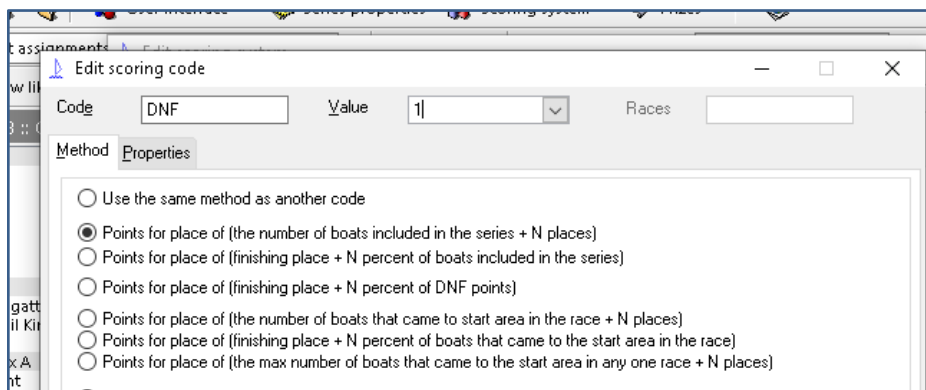
Selected competitor :: Gold - Blue - Radial Jean-Matthieu

1st Rank	Fleet	Class	Flight	SailNo	HelmNar H
1st	Gold	Radial	Blue	445	Jean-Mat C
2nd	Gold	Radial	Blue	414	Nicholas C
3rd	Gold	Radial	Red	15	Ian U
4th	Gold	Radial	Red	88	Simon C
5th	Gold	Radial	Yellow	223	Jason C
6th	Gold	Radial	Blue	44	Trevor C
7th	Gold	Radial	Yellow	48	Steve U
8th	Silver	Radial	Red	62	Aleks C
9th	Silver	Radial	Red	1112	Stephen U
10th	Silver	Radial	Yellow	10	John C
11th	Silver	Radial	Yellow	94	Matthew C
12th	Silver	Radial	Blue	245	Chris C
13th	Silver	Radial	Red	85	Galen C
14th	Bronze	Radial	Yellow	31	Alexandr C
15th	Bronze	Radial	Red	12	Ryan C
16th	Bronze	Radial	Blue	16	William C
17th	Bronze	Radial	Blue	123	Peter C
18th	Bronze	Radial	Yellow	74	Wilma U
19th	Bronze	Radial	Yellow	92	Fujimura J

As mentioned earlier, the finals races are scored by Fleet and not as one group. Unlike the qualifying races, the fleets do not have to sail the same number final races.

Note that **Scoring codes** need to be changed so that they refer to number of boats in each fleet – since the fleets are scored separately there is no need to get the “largest number of boats in any start” condition.

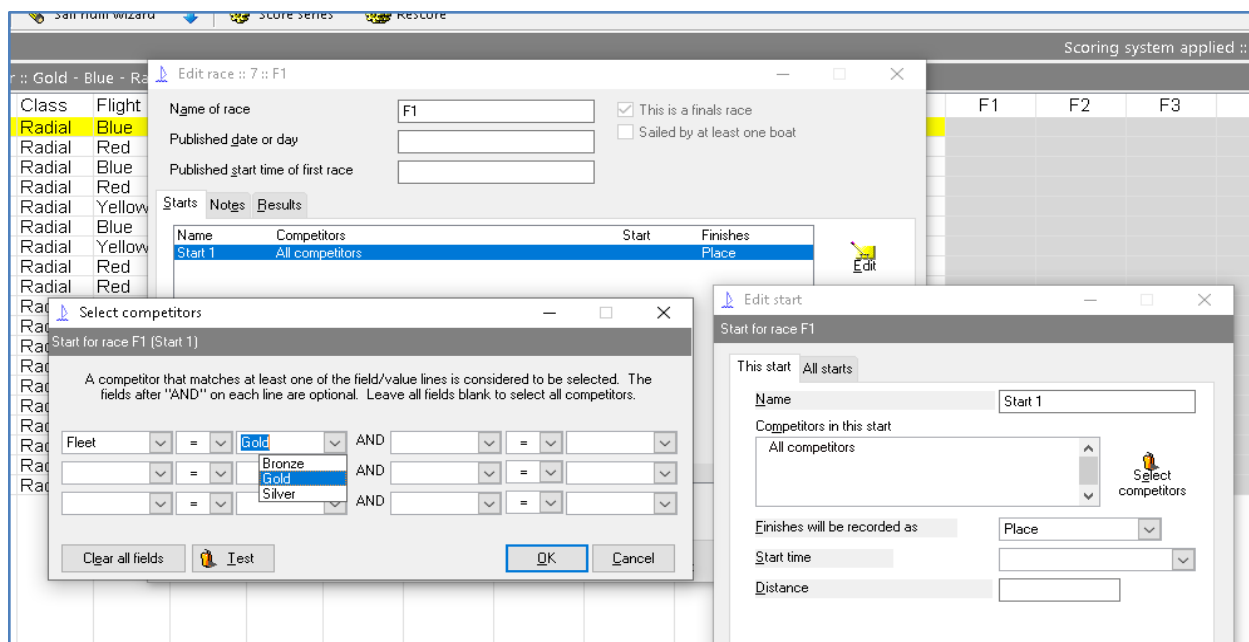
This will have to be done for both the fixed value scoring codes and the percentage value scoring codes.



Recreating Races and Starts

Several changes are needed to reflect the shift to the Final Series as follows:

- Reset the titles and starts of the final races need to be reset to F1, F2... by right clicking on the R7, R8... race tabs. Right click on the first final race again (F1 in this example).
- Click on the **Edit** button and then click on the **Select Competitors** in the Edit start screen to set up the Start 1.
- Select Fleet from the Select Competitors screen, then select Gold for the first start.



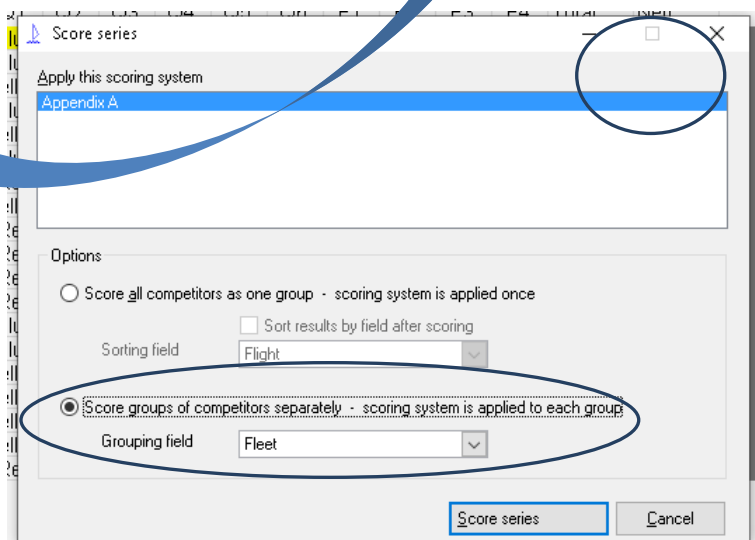
- Click on the **OK** button to get back to the Edit race screen.
- Set up start 2 by clicking on the **New** button and then the **Edit** button the second start. This will allow you to select Fleet equal to Silver.
- Click on the **OK** buttons set start 3 for Bronze in the same fashion.
- Click on the **Copy starts** button for races 8 to 10 in this example. Edit the races 8 to 10 to change the headings to F2, F3 and F4 in this example.

As with flights, the fleet assignments must be published to the **CORK** website and posted to the both notice boards. Scratch sheets, sign out/sign in sheets and Unique Sail Number sheets will also be needed. Again, it's always good to confirm with the RO to see if what format works best for them.

Scoring, Publishing and Posting

After the first final race results been entered, then select the **Score series** button on the main menu and change the **Options** to "Score groups of competitors separately – scoring system is applied to each group". Make sure the Grouping field is "Fleet".

Very important!!!! Do not score the results until you have finish data for



all fleets in the first race. The results will get messed up if you score the results without having data in the first final race.

At this point, the requirements for scoring and posting results will be the same as in Chapter 6.

5.4 Changing a Qualifying Result after a Final Series Result

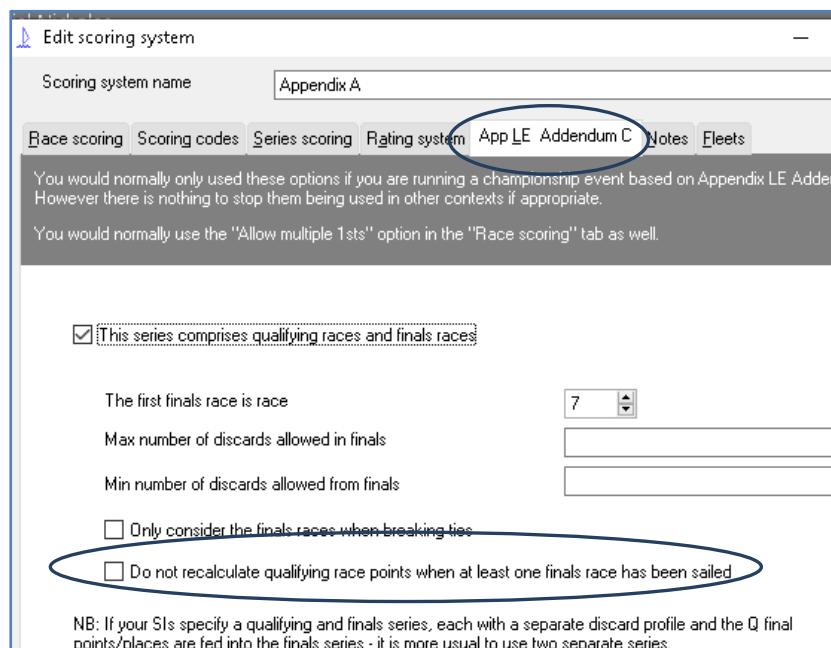
Once qualifying races are completed and before a race in the final series is run, no change to a qualifying result should be made as this could affect the calculation of splits into fleets for the final races. Race officers, jury and event organizers invest much effort in deciding all the protests and inquiries after the qualifying races so that the split into the final races can be made cleanly and without the need for subsequent adjustment.

By selecting “Do not recalculate qualifying race points when at least one finals race has been sailed” in the **Edit scoring system** tab **App LE Addendum C**, you are ensuring that qualifying results – the basis for assigning fleets for the final series – are not affected when scoring the final series. (See section 5.3 above for more information.)

Unwind Fleets – Correct Flights

Occasionally however, after the fleet splits are made and the first finals race scored, a situation may arise that requires a rescoring of the qualifying race results. Should a Race Officer make such a request, it will be necessary to “unwind” the changes made in *Sailwave* from fleets, return to flights and make the scoring change requested. The process is as follows:

- 1) Deselect or uncheck the **App LE Addendum C** checkbox for the “Do not recalculate qualifying race points when at least one finals race has been sailed”.



Edit scoring system

Scoring system name: Appendix A

Tab: Appendix A (selected)

Options:

- ☒ This series comprises qualifying races and finals races
- The first finals race is race: 7
- Max number of discards allowed in finals:
- Min number of discards allowed from finals:
- ☐ Only consider the finals races when breaking ties
- ☒ Do not recalculate qualifying race points when at least one finals race has been sailed

NB: If your SIs specify a qualifying and finals series, each with a separate discard profile and the Q final points/places are fed into the finals series - it is more usual to use two separate series.

- 2) Go to the **Scoring codes** and reset the penalties to “the number of boats in the biggest start in the race + N places” rather than the “number of boats included in the series + N places”.

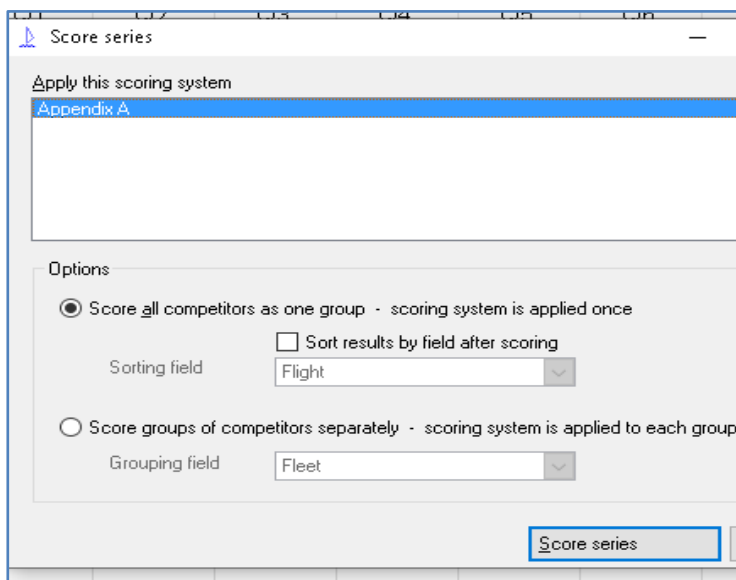
- 3) Perform the similar changes for the percentage point award penalties. Remember to set the **Value** box to the appropriate number while making these changes.

- 4) Make the requested corrections to the flight or qualifying races and the results scored. Check the “Score all competitors as one group – scoring system is applied once” and do not check the “Sort results by field after scoring”.

Restore Fleets

After the change is made, it is important to restore all series settings back to the **fleets** and the **finals races** configuration:

- 1) Check the scoring option “Do not recalculate qualifying race points when at least one finals race has been sailed” in the **Edit scoring system** tab **App LE Addendum C** selection.
- 2) Go to the **Scoring codes** tab and reset the penalties back to the “number of boats included in the series” selection, remembering to set the appropriate values in the **Value** box.
- 3) The finals race can then be scored, scoring the series by **Fleet**.



5.5 Checklist for Managing Split Starts



Setup of FLIGHTS Basics

- ☐ Add to user interface: "Split starts allowing multiple 1sts, 2nds, etc", "Appendix LE Addendum C", "Qualification profile" and "Extra competitor fields"
- ☐ Under the Edit scoring system/Race scoring tab select "Allow multiple 1sts, 2nds, etc."
- ☐ Under the Edit scoring system/App. LE Addendum C tab select "This series comprises qualifying races and final races"
- ☐ Under the Edit scoring system/App. LE Addendum C tab set the "first finals race" number
- ☐ Under the Edit scoring system/App. LE Addendum C tab select "Do not recalculate qualifying race points when at least one finals race has been sailed"
- ☐ Under the Edit scoring system/Series scoring tab set the "Discard profile"
- ☐ Under the Edit scoring system/Scoring codes tab set the scoring penalties to "Biggest start in any race". **Don't forget to set the "Value" field. ** Check the Sailing Instructions**
- ☐ Under the Tools tab set the Flight Assignments and apply to all the Qualifying races (set order based on initial seeding)
- ☐ Create the flight races/start for the whole qualifying series (naming convention Q1, Q2, Q3, etc.)
 - ☐ Run "Unique Sailnumber" for each flight and the overall series
 - ☐ Post the flight assignments online
 - ☐ Print the flight assignments from the online version
 - ☐ Post the flight assignment on the Official Notice Board (ONB).
 - ☐ At the completion of a day of qualifying racing: post results online, print the results from the online version and post on the ONB.
 - ☐ Under the Tools tab set the new Flight Assignments to all the Qualifying races that have not sailed yet. **Make sure that the results are sorted by rank**
- ☐ Repeat the above six steps during the qualifying series

Setup of FLEETS Basics

- ☐ Under the Edit scoring system/App. LE Addendum C tab make sure that the "first finals race" number is correct.
- ☐ Assign the boats to fleets using the set competitor field option. Assign Gold, Silver, Bronze, etc to field Fleet.
- ☐ Create the fleet races/starts for the whole final series (naming convention F1, F2, F3, etc.)

- ☐ Run "Unique Sailnumber" for each fleet and the overall series
- ☐ Post the fleet assignments online
- ☐ Print the fleet assignments from the online version and post on the ONB
- ☐ Under the Edit scoring system/Scoring codes tab set the scoring penalties to "Number of boats included in the series". **Don't forget to set the "Value" field. ** Check the Sailing Instructions**
- ☐ Enter results and score by "Grouping Field" Fleet

Process to change a qualifying result after final series race results

- ☐ Under the Edit scoring system/App. LE Addendum C tab deselect "Do not recalculate qualifying race points when at least one finals race has been sailed"
- ☐ Under the Edit scoring system/Scoring codes tab set the scoring penalties to "Biggest start in any race". Don't forget to set the "Value" field. **** Check the Sailing Instructions**
- ☐ Change the result(s)
- ☐ Score the series using the first scoring option "Score all competitors as one group - scoring system applied once" and ensure the box just underneath this option is not selected.
- ☐ Under the Edit scoring system/App. LE Addendum C tab select "Do not recalculate qualifying race points when at least one finals race has been sailed"
- ☐ Under the Edit scoring system/Scoring codes tab set the scoring penalties to ""Number of boats included in the series"". Don't forget to set the "Value" field. **** Check the Sailing Instructions**
- ☐ Score series by group and use "Fleet"



CHAPTER 6 – Race Committee: Score Races

As indicated the Chapter 2, the timely and accurate collection, processing and communication of racing results depends on solid teamwork. Clear communications with the Race Committee and in particular, the Start and Finish Recorders before, during and after races are run minimizes errors and scoring inquiries –i.e. key indicators of performance in scoring (see Chapter 9).

6.1 Working with On-Water Recorders

The Start and Finish Recorders are responsible for recording all race information on official record sheets⁶ on water. Recorders work collaboratively with the Scorers to exemplify the timely and efficient collecting, sharing and processing of start and finish data. Scorers appreciate that this task can sometimes be quite challenging due to numerous small, all-white boats moving in and around the finish area at the same time and/or weather conditions that impair visibility of sail numbers that are up to seven digits long.

Each course Race Officer (RO) is responsible for overseeing the work of the Recorders and Scorers assigned to his or her course. Typically, the RO assigns a primary Recorder to transmit start and finish results to the scorer assigned to the course. For efficiency, only one member of each Finish Team should be assigned transmission duty – sending the start data and finish sheets to the Scorer as soon as possible after the race is completed. This may change in racing configurations where the Start Recorder is on a different boat than the rest of the Finish Team.

Daily Briefings

Each morning at every CORK event, the Lead Scorer participates in Event Management meetings to review the previous day's racing, clarify expectations for the day's races and identify any last-minute changes to courses and/or classes that may affect scoring.

The All-Volunteer Briefing that follows Event Management meetings is an important opportunity to collaboratively trouble-shoot any scoring issues that may come up on the race course with input from every team member whether on-water or on-shore. During this briefing, recorders and scorers should review the scoring process for the previous day's races, what went well or didn't work at all, and identify possible improvements that can be implemented immediately.

⁶ CYA Race Management Committee, "Join the Race Committee Team! An entry level training manual for race committees", page 24.

Official Forms - Race Data

Each scorer should expect to receive at minimum two completed forms of race data for each race: Start Line Data sheet and Finish sheet.

Start Boat Data Sheets

One Start Data Sheet for each race should be completed by the Start Recorder and sent to the by text or email to results@cork.org immediately following the start of the race. The Start Data sheet includes at a minimum the following key pieces of information:

- Date
- Time of Start for each class
- Race number (in a series)
- All boats starting and finishing the race, including competitors who do not complete or finish the course
- Competitors who did not start (DNS), did not compete (DNC) or were on the course side (OCS) of the race course and did not start properly

If there are OCS competitors, the scorer will note this penalty and post the Start Data sheet on the Official Notice Board. Start Line data is also relayed to the website.

Other information such as wind direction and wind strength may be included on Start Data sheets. All of these data enable scorers and on-shore personnel to estimate when races will be finished and when finish data can be expected. All of these data may become critical pieces of evidence if competitors make a scoring inquiry or participate in a protest hearing.

CORK				
SIGNAL BOAT DATA SHEET				Course:
Name of Recorder:				Race#
				Page of
Class				
Start Time				
# of General Recalls				
Wind Strength				
Wind Direction				
Individual Recall Penalties			Work Area and Notes	
Class	Sail #	Penalty Code		
		OCS	UFD	BFD
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
Penalty Codes UFD – DSQ under Uniform Flag BFD – DSQ under Black Flag (These penalties are applied by race committee and should be recorded here and submitted to results)				
Email to: results@cork.org				

Finish Sheets



As competitors cross the finish line on-water, recorders write down the sail number of each competitor on a Finish Sheet. As noted earlier, this task may be difficult when competitors finish as a group and conditions impair visibility of sail numbers that are up to seven digits long. To identify and minimize transcription errors, there may be as many as three recorders writing down finish data. Race data recorded on the Finish Sheet are:

- Name of Recorder
- Course and Fleet name
- Race number
- Date and Start Time of the race
- The finishing position of each boat
- The time of the first and last finishers of one-design boats
- Protest flags, "I" flags or other flags seen by the Finish Recorders
- Protest information from competitors
- Competitors who retired after finishing

1-50 Finishes		Fleet:	Course:		
		Start time:	Race #		
Name of Recorder		Date:			
		Page			
1	Sail Number	Notes	26	Sail Number	Notes
2			27		
3			28		
4			29		
5			30		
6			31		
7			32		
8			33		
9			34		
10			35		
11			36		
12			37		
13			38		
14			39		
15			40		
16			41		
17			42		
18			43		
19			44		
20			45		
21			46		
22			47		
23			48		
24			49		
25			50		

Email to: results@cork.org

Note that the "Race Number" is always the race number of the entire series. Scorers should ensure that all finish recorders adhere to this numbering system to avoid confusion and minimize data entry errors.

The Finish Sheet shown at the right assumes that there are 50 or fewer competitors in the race. CORK also has finish sheets with spaces for sail numbers of 1-100 competitors and 100-200 competitors.

Mark Roundings

Race officers assigned to manage the race turning marks will often record the order by which the competitors pass by their station on the race course. Each mark is numbered in the Sailing Instructions but typically, race officers will refer to their mark by name – e.g. weather, leeward, or pin. Race data recorded on the Mark Roundings sheet include:

- Mark number or name
- Rounding number (competitors round the same mark up to three times during a race)
- Time that the first and last boat rounds

MARK ROUNDINGS					
MARK NUMBER _____			Race # _____ of _____		
ROUNDING NUMBER _____			Name of Recorder _____		
TIME(first boat rounded) _____					
TIME(last boat rounded) _____					
1	Sail Number	26	Sail Number	51	Sail Number
2		27		52	76
3		28		53	78
4		29		54	79
5		30		55	80
6		31		56	81
7		32		57	82
8		33		58	83
9		34		59	84
10		35		60	85
11		36		61	86
12		37		62	87
13		38		63	88
14		39		64	89
15		40		65	90
16		41		66	91
17		42		67	92
18		43		68	93
19		44		69	94
20		45		70	95
21		46		71	96
22		47		72	97
23		48		73	98
24		49		74	99
25		50		75	100

Email to: results@cork.org

- The order that each boat rounds by sail number

Mark Roundings sheets may be particularly useful if there are issues identifying the position of a competitor at the finish line, if there is a scoring inquiry or if there is a protest hearing.

6.2 Receiving and Entering Finish Data

After all on-water recorders have validated finish data on their respective finish sheets, a lead recorder takes a picture - .jpg - of the most legible or complete Finish sheet and emails or texts it to results@cork.org. The Scorer who receives the jpeg photo will open it and using software such as Picture Manager, adjust for rotation, [Roppingcropping](#), clarity, and sharpness.

The Scorer will then print the jpeg and examine the results carefully and look for potential issues such as duplicate sail numbers, transposed numbers, etc. Check the Signal Boat Data Sheet to ensure that all the information such as start time for each fleet and penalties are also on the Finish sheet.

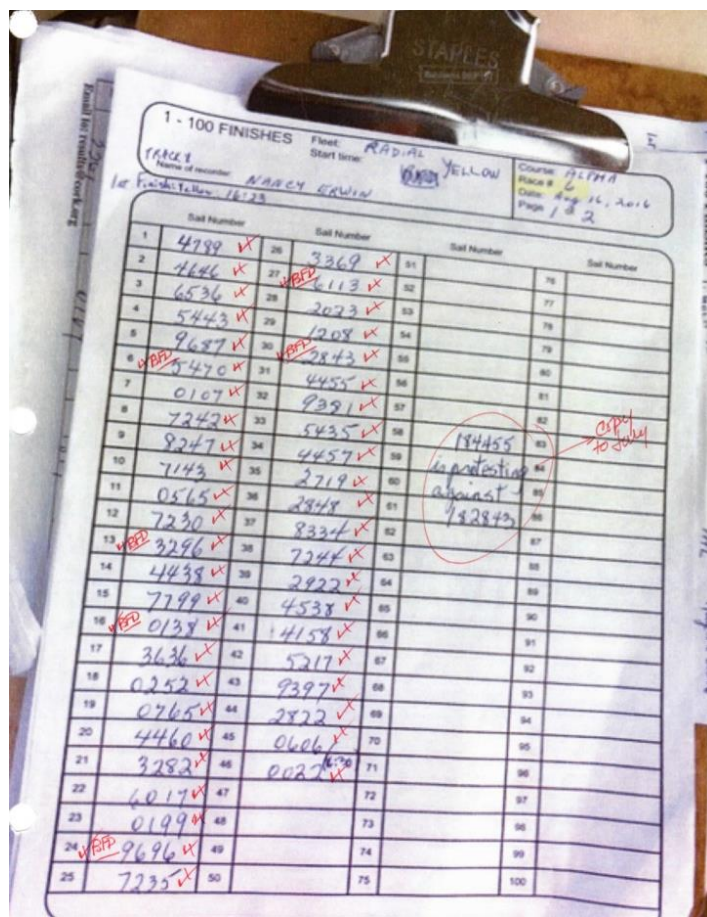
Data Entry Approach

As described in Chapter 2, one scorer is usually assigned to a course and fleet with the authority to enter and manage the results for that course and fleet. Some scorers find it very helpful to have another person read the sail number aloud as they enter sail numbers.

Regardless of the entry approach, it is advisable to make a red ink check mark beside the sail number as each sail number is entered into *Sailwave*. When the numbers are read back from *Sailwave*, a [Ross-cross](#) check on the red check mark should be made. Any issues should be circled and noted for consultation with the course recorders when they return to shore. See the example on the finish sheet right.

Using Sail Number Wizard

Sailwave's Sail Number Wizard – “Sail num wizard” - is the function for entering the order of finishes by sail number as shown on the Finish Sheet. Click the Sail num wizard button on the toolbar to begin then follow the steps below:

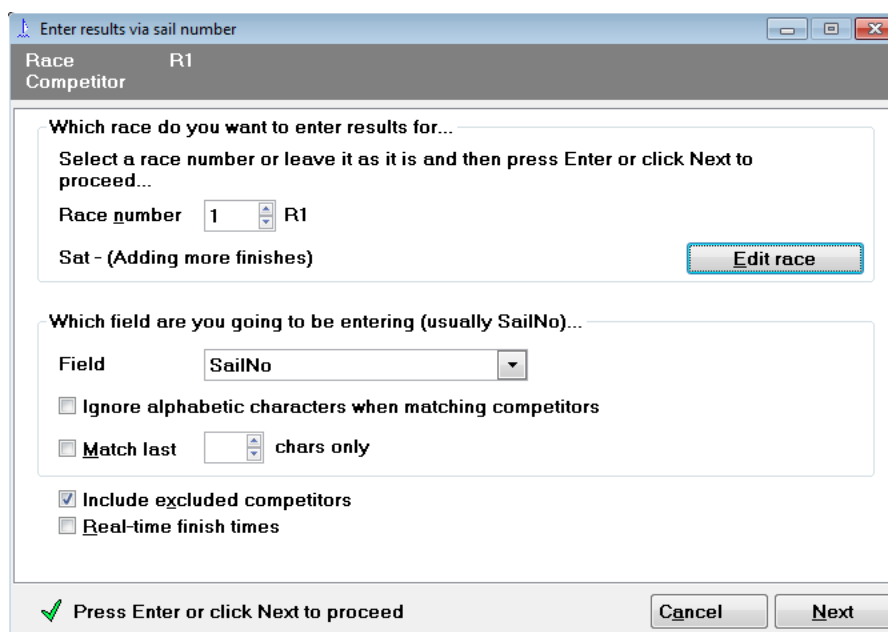


1-100 FINISHES		Fleet: RADIAL	Course: YELLOW
Name of recorder: NANCY EDWIN		Place: 6	Date: Aug 16, 2016
1st Finish: Yellow 16:23		Page: 1 of 2	
1	4789 ✓	3269 ✓	
2	7646 ✓	26113 ✓	
3	6536 ✓	2023 ✓	
4	5443 ✓	1208 ✓	
5	9687 ✓	2843 ✓	
6	5470 ✓	4455 ✓	
7	0107 ✓	9391 ✓	
8	7242 ✓	5435 ✓	
9	8247 ✓	4457 ✓	
10	7143 ✓	2719 ✓	
11	0565 ✓	2848 ✓	
12	7230 ✓	8324 ✓	
13	3296 ✓	7244 ✓	
14	4438 ✓	2822 ✓	
15	7799 ✓	4538 ✓	
16	0138 ✓	4158 ✓	
17	3636 ✓	5217 ✓	
18	0252 ✓	9397 ✓	
19	0765 ✓	2822 ✓	
20	4460 ✓	0606 ✓	
21	3282 ✓	0027 ✓	
22	6017 ✓		
23	0199 ✓		
24	9696 ✓		
25	7233 ✓		

- 1) Select Race Number, Field SailNo, hit next. Note that you can just hit the return key to go to the Next page for speedy entry.

Tip: Use the “match Last x chars only” option for classes like the Lasers.

Their results will be recorded on the results sheet by last 4 or 5 digits.

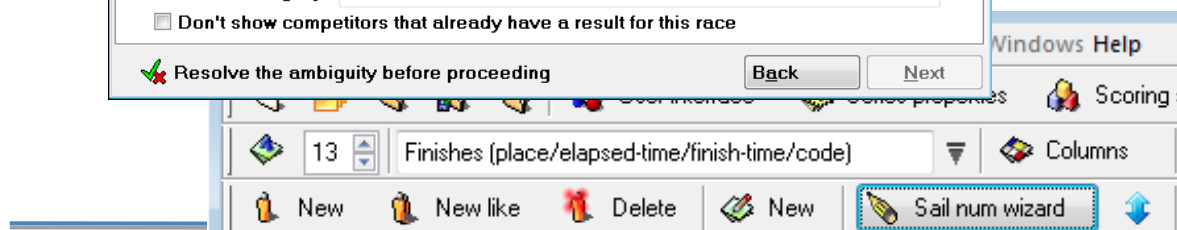


- 2) Enter the sail number in the order on the Finish sheet. The Sail num wizard will make a beep sound when you have entered enough to uniquely match one sail number. For

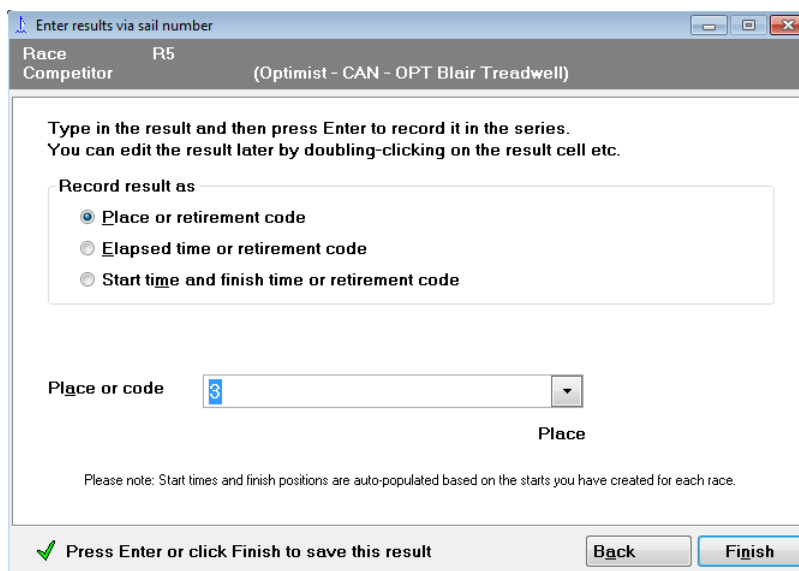


example, if you type 312 that may be enough to uniquely identify the boat 3124 in the list of competitors.

Tip: Check the “Don’t show competitors who have already have a result for this race” to help with faster initial entry.



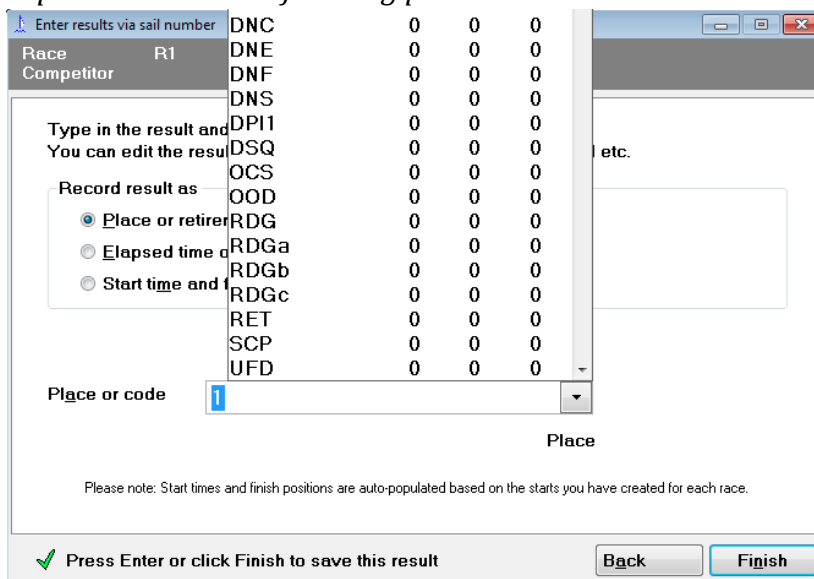
- 3) Once you have entered the number, hit the Enter key to go the next screen to enter the next sail number on the finish sheet. Note for CORK One Design regattas, you will always be entering the data with the “**Place or Retirement Code**” button selected. The values for the finishing position will default to the next position for each entry.



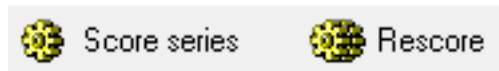
Hit enter again to finish entry and start the next result entry. Note that when entering the finishing position, it will default to using the next finishing position.

Tip: For even faster entry once you have uniquely entered the sail number for a finisher, just hit the “+” key. This enters the competitor in the next finishing position and restart the Wizard for the next entry. This allows for extremely rapid entry of the result. Always place a check mark on the results sheet as each result is entered.

- 4) After entering all the finish positions, check the finish sheet to see if there are any penalty codes (e.g. DNF, RET, DNC, etc.) associated with a finisher. At the right of the ‘Place or code’ field, select the appropriate penalty code from the popup menu. Then hit the finish button.



- 5) After entering all results, choose **Edit Race** by right clicking on the header for the race and confirm the Name of Race (R1, R2 etc) and set the published date or day (Sat/Sun etc is fine) and start time of the race. These fields appear at the top of any published results, so accuracy is important.



- 6) Finally, initiate the scoring of the first race using the 'Score Series' button.

Correcting Entry Errors

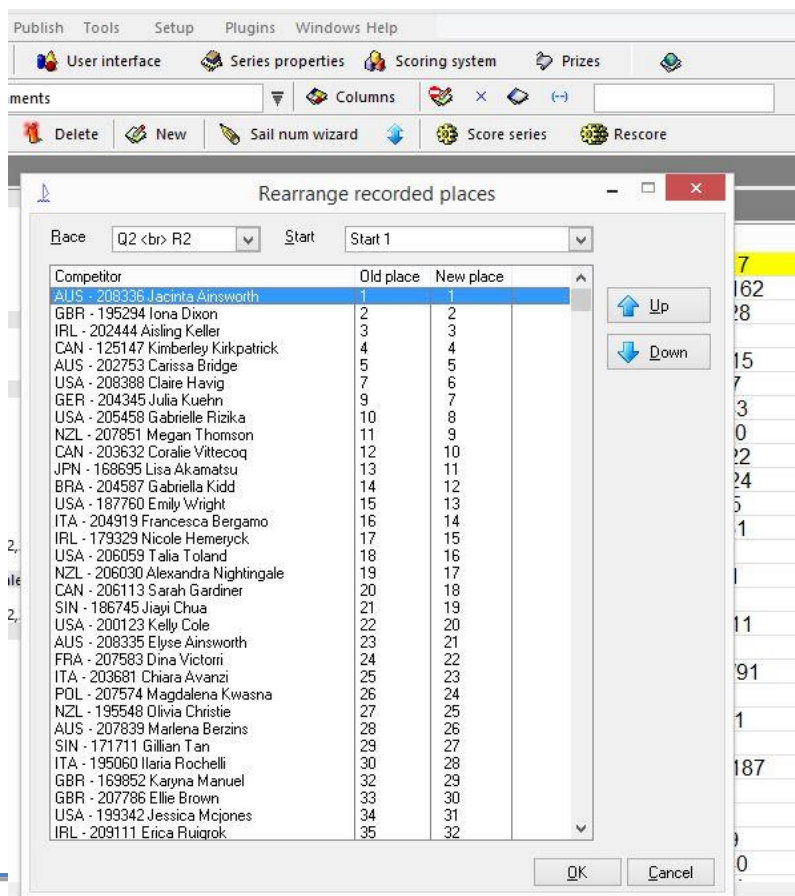
The next step is to [Rosscross](#)-check the results entered in *Sailwave* against the finish sheet noting any anomalies such as a sail number on the finish sheet that does not appear in *Sailwave*. Try to resolve any inconsistency by identifying if it is a recorder/transposition error on the finish sheet – i.e. numbers reversed.

Entry errors should be noted, the correction initialed on the Finish sheet. If the sail number can't be explained as a straightforward error or is not the competitors' list, the issue should be noted and described to the Race Officer (RO) on shore at the end of the day. In every case, the RO should be briefed on any corrected or outstanding data entry issues and should approve any changes to the final results.

Important: Never edit the competitor result directly by double clicking their result. You will end up with duplicate results. (The only and rare exception is a photo-finish.)

The correct sail number should be entered in Sail num wizard at the end of the other finishers. This competitor will then have to be moved to its correct finish position using the '**Rearrange recorded places**' tool which can be accessed either by:

- the blue up-down arrow to the right of the 'Sail num wizard' button, or
- the Tools pull-down menu



- 1) Find the finisher that was immediately ahead of the result that needs to be changed. Check to be sure of the competitor name and the correct fleet.
- 2) Select the incorrectly placed competitor. Move them using the up arrow until they are immediately below the finisher you found above.
- 3) Click OK and then choose **Rescore**.
- 4) Double-check the results to ensure that the corrected competitor is now in the correct position in their fleet.

6.3 Publishing & Posting Preliminary Results

Once all the finish data has been entered and scoring has been done for each race, it's important to let the competitors, families and spectators know the results! This is done by posting the printed race results on the official results board and by publishing results directly to the CORK website and *but first ...*

Enter Sign-Out/Sign-In Penalties

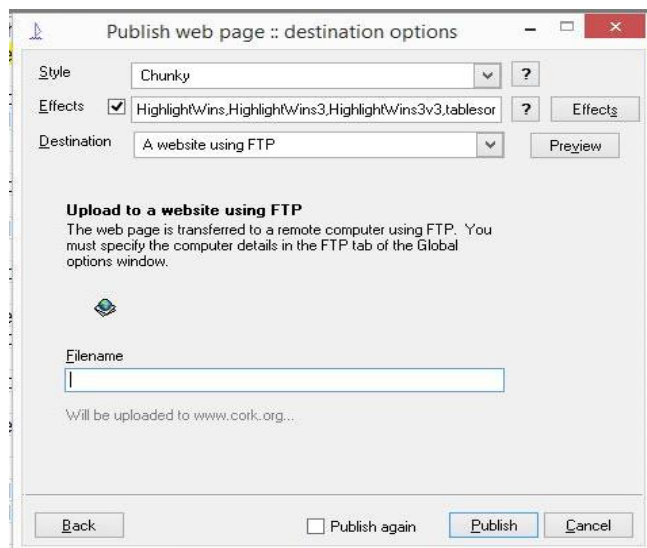
After racing starts and ends each day, the CORK Office gives the Results Room an official form that identifies any competitor who has failed to sign out before going out to race or to sign in when coming off the water. The sign-out or sign-in penalty should be applied to the competitor's first or last race that day. To apply the penalty in *Sailwave*, select it from the popup menu in 'Sail num wizard' at the right of the '**Place or code**' field. Sign-out/Sign-in penalties are part of the Scoring system set-up – see Chapter 3. See Chapter 4 for more information on Sign Out/Sign In sheets.

Proofread Data Entered

As a general rule, it's good risk management to proofread your work by having the data entry person read back the last two digits of the sail numbers and circle or ~~cross~~ check each red pen mark showing the proof.

Tip: For proofreading, do a primary sort of the file by fleet and a secondary sort on that race column. Then reading back the sail numbers is faster.

Effects



Each year, in response to different sailing organizations and event requirements, CORK's Event/IT Team adjusts and improve layouts and style of published Results. Two recent changes have become standardized for all CORK events – addition of nationality flags and colour highlights of the 1st/2nd/3rd positions for each race.

These effects – scripts written in Javascript that increase the functionality of published pages - are configured in the 'Publish web page – destination options' screen. Below are two examples of final results that show how these standard effects enhance the published results:

Laser Master Canadians 2018

- From left to right, note that the country flags immediately follow Rank, then Sail number, Skipper, Age category, then Province/State flags.
- In each race, the competitor in first place is highlighted in yellow (gold,) second place in blue (silver) and third place in red (bronze).



Laser Masters Canadians CORK Sail Kingston



Results are provisional as of 13:40 on July 8, 2018

Overall

Sailed: 9, Discards: 1, To count: 8, Entries: 30, Scoring system: Appendix A

Rank	Nat	SailNo	Skipper	Age Cat	PR/ST	R1	R2	R3	R4	R5	R6	R7	R8	R9	Age Penalty	Total	Net	City
1st		207143	Ernesto Rodriguez	M		1.0	(31.0 UFD)	1.0	2.0	1.0	3.0	1.0	9.0	1.0	16.0	66.0	35.0	Miami
2nd		1	Oswaldo Padron	M		(6.0)	4.0	3.0	3.0	3.0	2.0	2.0	2.0	3.0	16.0	44.0	38.0	scarborough
3rd		212872	Dave Chapin	GM		7.0	(31.0 UFD)	2.0	6.0	8.0	5.0	6.0	3.0	4.0	8.0	80.0	49.0	Winter Springs
4th		166906	Ray Davies	M		4.0	1.0	(13.0)	7.0	4.0	1.0	3.0	6.0	12.0	16.0	69.0	56.0	Toronto
5th		212868	Pat Wachholz	M		3.0	(31.0 UFD)	10.0	5.0	2.0	11.0	4.0	4.0	13.0	16.0	99.0	68.0	Innisfil
6th		212867	David Hiebert	M		5.0	7.0	(11.0)	4.0	9.0	10.0	8.0	1.0	9.0	16.0	80.0	69.0	Jupiter
7th		208838	Mike Matan	M		8.0	6.0	5.0	9.0	10.0	9.0	(11.0)	8.0	2.0	16.0	84.0	73.0	new York
8th		199978	Chris Van Rossem	M		9.0	5.0	7.0	(16.0)	6.0	6.0	7.0	14.0	6.0	16.0	92.0	76.0	Toronto
9th		209075	Gord Welsh	A		2.0	2.0	8.0	(13.0)	7.0	7.0	10.0	7.0	10.0	24.0	90.0	77.0	PETERBOROUGH
10th		210677	Andy Roy	GM		(31.0 DNF)	31.0 DNC	12.0	1.0	5.0	4.0	5.0	5.0	8.0	8.0	110.0	79.0	Peterborough
11th		203609	Roman Plutenko	M		11.0	1.0	4.0	8.0	11.0	8.0	9.0	12.0	(15.0)	16.0	95.0	80.0	Arlington Hight
12th		208840	Bruce Clifford	GM		(21.0)	9.0	6.0	11.0	13.0	13.0	16.0	11.0	11.0	8.0	119.0	98.0	Brampton
13th		208669	Rob Murray	GM		12.0	12.0	9.0	10.0	12.0	12.0	14.0	(21.0)	7.0	8.0	124.0	102.0	

International Optimists Gold Fleet

- From left to right, the country flags immediately follow Rank, then Sail number, then Skipper – similar to the Laser Master example. But Age categories aren't displayed in Opti fleets.
- Province/State flags in this example are shown at the far right beside Club.
- In each qualifying series race (Q1, Q2, Q3...), three 1st, 2nd and 3rd places are highlighted. This is because there were three flights in this qualifying series.
- In the final series races (F1, F2 and F3), the competitor in first place is highlighted in yellow (gold,) second place in blue (silver) and third place in red (bronze).

- Less than half of Gold Fleet results are shown in this example. There were 50 competitors in that fleet, 50 in Silver Fleet and 45 in Bronze Fleet. On the website, results for Silver then Bronze Fleets would be presented below Gold Fleet.

Gold Fleet

Sailed: 8, Discards: 1, To count: 7, Entries: 50, Scoring system: Appendix A

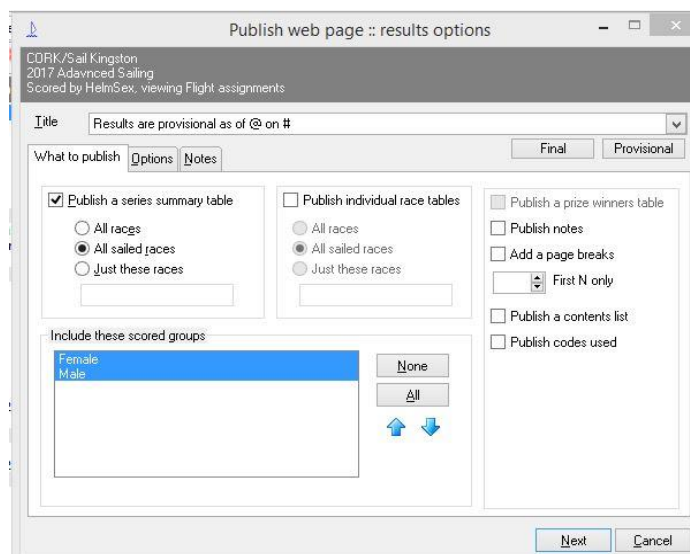
Rank	Nat	SailNo	HelmName	Q1	Q2	Q3	Q4	Q5	F1	F2	F3	Total	Net	Club	Prov/State
1st		1310	Jackson Macaulay	(6.0)	1.0	4.0	1.0	2.0	3.0	1.0	4.0	22.0	16.0	LOOT/RNSYS	
2nd		111	Stephan Baker	1.0	2.0	7.0	3.0	1.0	1.0	(17.0)	11.0	43.0	26.0	LAUDERDALE YC	
3rd		21758	Sara Schumann	(17.0)	8.0	1.0	2.0	6.0	8.0	5.0	2.0	49.0	32.0	LOOT	
4th		21447	Gil Hackel	5.0	2.0	7.0	4.0	4.0	(19.0)	6.0	7.0	54.0	35.0	LOOT	
5th		21419	Laura Hamilton	2.0	3.0	5.0	4.0	(11.0)	6.0	8.0	8.0	47.0	36.0	LOOT/LYC	
6th		21662	Jonnie Cifolillo	8.0	5.0	6.0	1.0	1.0	13.0	3.0	(14.0)	51.0	37.0	BYC	
7th		11	Peter Foley	3.0	1.0	4.0	3.0	2.0	(14.0)	12.0	13.0	52.0	38.0	CRYC	
8th		1768	Mathieu Graham	1.0	15.0	11.0	3.0	5.0	(20.0)	9.0	3.0	67.0	47.0	JK SAILING	
9th		21977	Anna Vasilieva	1.0	7.0	1.0	5.0	10.0	4.0	(21.0)	20.0	69.0	48.0	RUSSAILYC	
10th		1397	Owen Gormely	2.0	2.0	9.0	(51.0 UFD)	5.0	29.0	7.0	6.0	111.0	60.0	RCYC/COOT	
11th		21476	Ryan McGauley	14.0	8.0	5.0	2.0	11.0	(39.0)	20.0	1.0	100.0	61.0	LOOT	
12th		1391	Carling Davies	4.0	3.0	4.0	9.0	6.0	(27.0)	26.0	9.0	88.0	61.0	RCYC	
13th		21100	Conner Kirkman	9.0	18.0	19.0	2.0	3.0	9.0	2.0	(31.0)	93.0	62.0	Grosse Pointe Yacht Club	
14th		16710	Peter Barnard	3.0	10.0	3.0	9.0	3.0	(41.0)	18.0	17.0	104.0	63.0	CHICAGO YACHT C	
15th		1696	Jesse King	6.0	5.0	5.0	14.0	7.0	10.0	16.0	(44.0)	107.0	63.0	RNSYS	
16th		955	Tanner krygsveld	4.0	12.0	9.0	10.0	4.0	7.0	23.0	(51.0 UFD)	120.0	69.0		
17th		1417	Noah Adler	(22.0)	1.0	2.0	17.0	7.0	11.0	13.0	22.0	95.0	73.0	RNSYS	
18th		22278	Leopold Seuss	11.0	3.0	2.0	(51.0 UFD)	2.0	2.0	4.0	51.0 UFD	126.0	75.0	CRYC	
19th		20818	Sebastian Spinelli-Sax	(51.0 DNC)	4.0	1.0	23.0	1.0	12.0	10.0	26.0	128.0	77.0	CERT	
20th		1677	Andreas Steinitz	16.0	8.0	9.0	21.0	3.0	(22.0)	15.0	5.0	99.0	77.0	BQYC/COOT	

Publish Results

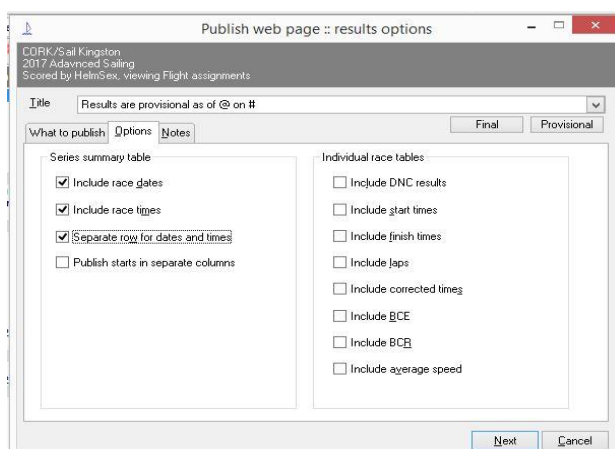
If the preview version looks correct in format, layout and content, then it's time to publish! Always rescore before publishing and save the series. Then follow the steps below.

- From the toolbar menu, select **Publish->Results** for the 'Publish web page' options
- Choose 'Provisional or Final' from the popup menu to the right of the Title field.
- Under the What to publish tab, select 'Publish a Series Summary Table' then check 'All sailed races'.

Note: Do not check 'Individual race tables' nor 'Publish a prize winners table' on the right of the window. See Chapter 8 for details about setup and publishing the

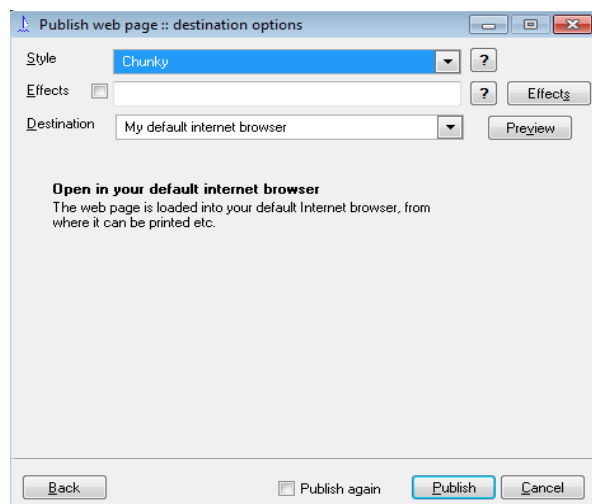


- 4) Under the **Options** tab, check 'Include race dates, Include race times and Separate rows' for dates and times for the 'Series summary table'.



Then hit the 'Next' button on the bottom right to get to the **Publish web page :: destination options** window.

- 5) In the 'Destination' field, select 'My default internet browser' then the '**Preview**' button. The results sheet will open in locally.



'**Preview**' allows the scorer to identify results that may not seem quite right – such as a boat showing as DNC (did not compete) who had sailed all the previous races or a DNF for a problematic sail number when entering finish data. Review the results carefully. You have the time now to make sure everything is correct before you put it out to the world.

'**Preview**' also allows the scorer to check that the column layout set up under **Series Properties** (Chapter 4) – e.g. logos for CORK and Event sponsors, Event Title, links for the racers' World Sailing number and country flags – are in the right order. 

Hint: While previewing, use the **View->Columns...** function to minimize unnecessary information. Just edit each column to indicate if it should appear in the published output.

- 6) If you are satisfied that the previewed results are correct, then you're ready to publish to the CORK website. Close the preview version, go back to the 'Publish web page' and choose 'A website using FTP' from the 'Destination' field. Then select the 'Publish' button at the bottom right of the screen. Sailwave will display a few screens that indicate the results are being published to the CORK web page and when the publishing is done.



- 7) Go to the CORK website and find the Results page for your fleet. Print three copies of the published results from the web. Post one copy in the Results Room on the blue board and post the second copy on the Official Notice Board. The copy on the blue board should always be the latest version for easy access when investigating scoring inquiries.

The third copy is filed in the scorer's course binder with the working copies received and used for data entry. Staple the two (or more) data entry sheets together so that all paper for that race stays together.

Important: For Media/Marketing purposes, it is very important to publish and post the preliminary results after every scoring change.

The timeliness of scoring is a key performance measure: both the time between race finish and results to Results Room, and the time from receipt of results to publishing & posting the preliminary results. See Chapter 9 for more information on this.

6.4 Filing during Race Days

Each course scorer is responsible for maintaining his/her paperwork in binders marked with the course and fleet name.

Once all the results are in, scored, and the results posted, sort all the paper data by race number and staple to the back of the matching race in the "Course Data" file building up from oldest race to newest. Staple together the pages that apply to all races on that course that day, put the page used to do the actual data entry as the top page and add the date, time and initials in red ink on the page, then file the data sheets.

All race data sheets completed on-water by race officers will be brought to the Results Room at the end of racing after boats return to shore. The Lead Scorer will collect paper race data sheets and file them in the appropriate folder which is set-up by course and fleet name. Often the race officer will ask whether there were any data entry issues on their course. If the scorer is available, the race officer will discuss any issues and resolve them as quickly as possible.

But the scorer's responsibilities aren't done yet. Competitors returning to shore will check their results on line and some may question whether the result is correct. Discussion with race officers may lead to scoring changes that will be entered by the scorer for that course.

CHAPTER 7 – Jury: Enter Scoring Changes

Sailing is a self-regulatory sport where competitors are expected to comply with the International Racing Rules of Sailing (RRS). A scoring change in the posted Results may be required when a rule is broken but only after race officials investigate the merits of alleged rule infractions. There are several avenues by which competitors can challenge race results that lead to investigation including:

- Scoring Inquiry – A competitor may dispute a finish position or score in the Preliminary Results posted by filing a scoring inquiry.
- Protest Hearing – A competitor who alleges that another competitor has broken a racing rule which impaired her performance and position during a race may file a 'protest'. A 'protest' is a written description of the alleged infraction which is reviewed and assessed by a jury in a formal hearing.
- Redress Hearing – A competitor who believes that actions by race committee or umpire unfairly affected their race score may request a redress hearing to investigate the issue.

The Lead Scorer is responsible for managing disposition of all scoring changes after racing is completed and maintaining records of action taken in a 'Scoring Changes' binder.

7.1 Results Teamwork: After Racing

Scoring changes, protest hearings and jury decisions are made after racing is completed, and the Results Room gets very busy. Each Finish Team brings in all the paperwork from the day. Each Finish Team contact will check with the Course Scorer to ensure that the race results were received and entered before filing the paperwork.

This is a crucial time where the Finish Teams and Results Team can demonstrate their teamwork! The Scorer will benefit from accurate filing of race data as described in Chapter 6 which can then be matched with the Finish Team paperwork. All pertinent sheets are together with the official data entry sheet on top and labelled. This paperwork may be particularly important when a Jury is preparing for or hearing a protest. Members of the Results Team and Finish Team should be prepared to review, discuss and confirm scoring inquiries, race data and related issues with the Jury before a scoring change is made.

7.2 Scoring Inquiries

Scoring inquiries are formal documents that need to be investigated carefully before making a scoring change. The information in a Request for Review of a Competitor's Score (form at right) may help correct a transposition error noted by the Scorer. It may also indicate a possible on-water infraction that could lead to a hearing. The number and type of scoring inquiry are key

performance indicators of how well the scoring teams performed both on-water and on-shore (see Chapter 9 for more information).

Request for Review

Competitors who want to challenge the posted preliminary result may obtain and complete a scoring inquiry form at the Jury Desk. Inquiry forms may be used for requesting changes to finishing position shown on result sheets with evidence, e.g. names/sail numbers of witnesses, if scored DNF, DNS, DNC or incorrect positions. Inquiry forms should not be used for challenged OCS's, UFD's or BFD's as this is a request for redress. (RRS 62).

The Jury Secretary checks the form for legibility, ensures that all pertinent information is recorded including the date and time the inquiry was received, then brings the form to the Results Room.

Results Room Procedures

The first step in investigating any scoring inquiry is to log and file it in a Scoring Changes binder. The Lead Scorer receives and reviews the information on the scoring inquiry and enters key pieces of information in the 'Scoring Inquiry Log'. The Inquiry Log sheet is kept at the front of the Scoring Changes binder. Each inquiry is given a number and that number is entered on the form and on the Log.

At times, the inquiry can be addressed easily by reviewing the change requested against the finish time data received from the recorders. It is possible that there was a transcription error at the time finish data is entered. The scorer will make the change in the *Sailwave* file, note the details, date & time, initial and file the form in the Scoring Changes binder according to its log number.

If, however, the Finish Sheets agree with the *Sailwave* results posted, nothing can be done by the Results Team until the RO and Finish Team comes off the water.



Received by: _____
Date: _____
Time: _____ No: _____

REQUEST FOR REVIEW COMPETITOR'S SCORE

Sailor name: _____ Sail Number: _____
Cell phone: _____ Country code: _____
Class and fleet colour: _____ Race no: _____

☐ I have been scored _____ But this may be incorrect.
☐ I finished correctly but my finishing position is not shown.
I believe that I finished in _____
I request that the race committee check their records for a possible error.

Witnesses (name, country code and sail-number)	Country code
_____	_____

Other information

Signed: _____ Date: _____

Data entry checked by Results.

Race Officer decision. (if boat position changes, indicate before sail no... and after sail no...)

Signed: _____ Date: _____

Scoring Inquiry Log						
Log #	Sail No.	Skipper	Date Rec'd	Resolved		
				Action	Initial	Date & Time
1						
2						
3						
4						
5						
6						
7						
8						

Race Committee Procedures

As noted in Chapter 6, race officials collect significantly more data about the conduct of racing on-water both in paper and digital format. Members of the finish team for example, will usually record the calling out of sail numbers as competitors finish on a digital recorder for play back if there are discrepancies in the numbers recorded on finish sheets by on-water recorders.

When race officers bring paperwork to the Results Room at the end of racing, the primary recorder or RO will ask whether there were any data entry issues or scoring inquiries on their course. If the scorer is available, the race officer will discuss any issues and resolve them as quickly as possible. This may require a review of all records by the Finish Team.

Once an Inquiry has been resolved, the RO shall review details noted on the Inquiry form, enter the date & time resolved and initial the form. On the Inquiry Log form record the date and time and fact of resolution and initial it.

If there are any blanks in the Log, the Lead Scorer will ensure that the RO is informed of an outstanding issue as soon as possible. This may involve checking with the Jury Secretary to see whether a competitor who filed a scoring inquiry is also involved in a protest hearing.

7.3 Protests Hearings & Jury Decisions

Results Team members are responsible for entering any scoring changes required after all protests have been heard, then re-scoring and re-publishing the day's re-scored results before leaving for the day.

Protest Hearings

As protest forms are logged at the Jury desk, the Jury Secretary and Chief Judge arrange for a protest committee to hear the protest. The Protest Schedule – a board behind the Jury desk - lists the competitors who have lodged protests that will be heard before the end of the day. The Lead Scorer reviews the Protest Schedule to identify the class and competitors who may be involved in a protest hearing and let the relevant scorer know if a scoring change may be required.

Jury Decisions

A jury decision is a formal 'scoring change' document that specifies the scoring penalty resulting from a protest hearing. Not all protest hearings result in a scoring change.

Jury Decisions will be delivered to the Lead Scorer on a document signed by the chair of the Jury who heard the protest. The Lead Scorer will note the date and time the jury decision form was received in a 'Jury Decision Log' which is part of the 'Scoring Change' binder.



At times, several decisions affecting several different fleets and courses come in on one form. As these decisions are implemented, note the action taken, date & time & initials and file the completed form in the 'Scoring Changes' binder.

7.4 Prepare for Next Racing Day

Change of Information Log

During a day of racing, competitors may face equipment and crew changes for a variety of reasons. Once the event has begun, the ONLY way changes can be made to each sailor's data in *Sailwave* is in the Results Room. All information changes must be filed first with the CORK office. If a sailor (or representative) comes to the Results Room to request an information change, the Lead Scorer will send them to the CORK Office to initiate the process.

The CORK office will itemize the details of a change to Registration data first, then send the 'Change of Information' form to Results on a form signed by a CORK event chair or co-chair. The Lead Scorer will then ask the appropriate scorer to make the change in *Sailwave*. Once that change to competitor information has been made in *Sailwave*, the scorer will note the date, time and his or her initial on the 'Change of Information' form and file it in the 'Scoring Changes' binder.

Results Room Daily Log

The Lead Scorer is required to note important aspects of the activities of the day and how they were dealt with. For example, if the Race Officer requests atypical information or a change in format of the printed or posted results, the Lead Scorer will note the information and how it was addressed. Both teams are continuously looking for ways to improve procedures and most importantly, the CORK experience for competitors and volunteers alike.

At the end of the day, if a change in process or an action has not yet been implemented, this should be noted on the Daily Log. Since different volunteers may be on scoring and race committee duty at different times, the daily log ensures that whoever opens each morning will know what items are outstanding at the end of the previous day. This helps the entire Results Team keep abreast of what needs to be done to ensure the success of the event.

Action items that may be outstanding each morning include:

Update in the staffing schedule for the Results Team.

Review Scoring Changes binder for forms that may have come into the Results Room late the previous day or early in the morning. Address them early in case they lead to changes of information for the current day's races.

Ensure new Scratch Sheets with updated information are printed and available for race officials. Check with Registration to see if there's been any change in competitor information before doing this.



Clean and tidy up the Results Room. Check that all the forms from the day's racing are filed correctly.

CHAPTER 8 – Finalize Results

Shore-side gets very busy on the last day of the event when the Media/Marketing Team showcases the winning competitors. This wouldn't be worth all the effort without prizes would it!?

8.1 Awards Ceremony

The Results Team must make a special effort to finalize Results on all courses before boats return to the docks, well before the Awards Ceremony.

Each Course RO will work closely with the Results Team to expedite scoring inquiries. Until outstanding issues are resolved, the results cannot be finalized. Course ROs give out awards to the prize winners and need to be comfortable that the end product makes sense. Correctly calculated results and prizes are key products of an amazing amount of teamwork!

To stay on schedule, the Media/Marketing Team sets the time for the awards ceremony after getting feedback from the Lead Scorer, Event Chair, PRO and course RO. Often, an outstanding scoring issue affects the top-placed competitors and the prizes to be awarded.

8.2 Set-up the Prize Table

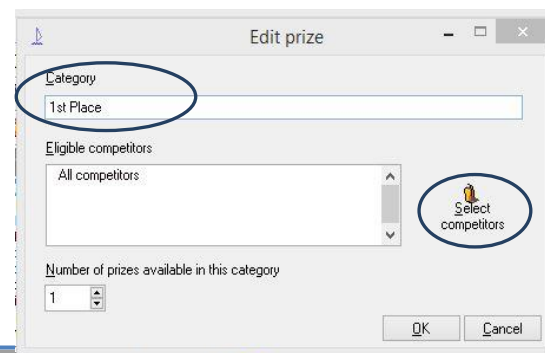
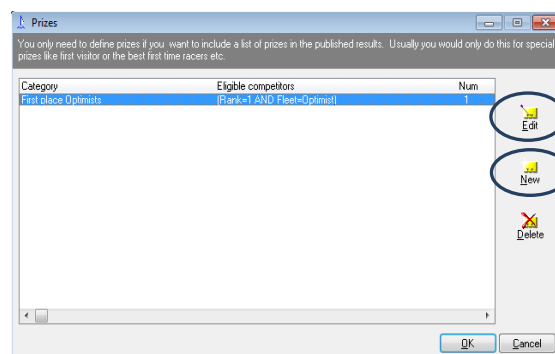
The prize table is list of event winners calculated from the results in *Sailwave*. Prize tables may be set up any day based on information and the Sailing Instructions (Sis) but they are not published and posted until the Awards Ceremony. At a minimum, each scorer is expected to set up a prize table based on the course results on the last day before the boats come off the water.

The steps for setting-up the prize table are as follows:

- 1) From the toolbar, select **Setup->Prizes**.
- 2) Hit the 'New' button, then the 'Edit' button.
- 3) In the '**Edit Prize**' window, describe the prize in the Category field. Repeat this step to describe as many prizes as required. Check with the RO and Media/Marketing team about wording for the SI-defined prizes or any special prizes.

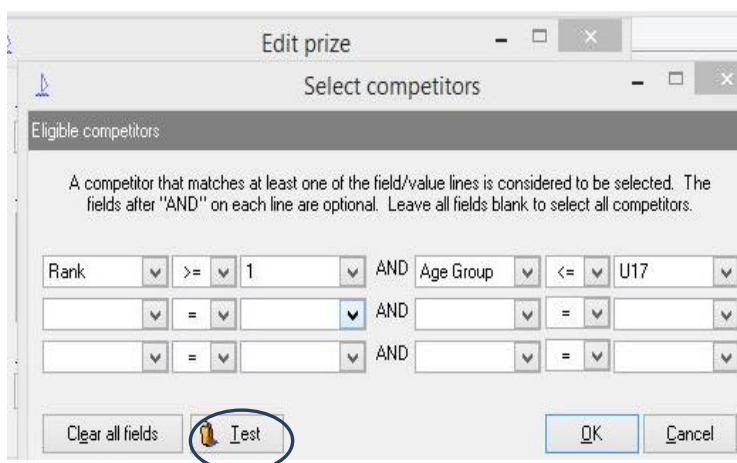
Typically, there's only one 1st, 2nd and 3rd place winner for each class or fleet of boats. However, Sailwave offers the flexibility for more than one prize to be awarded in any one category.

- 4) After all the prize categories are described, hit the '**Select competitors**' button.

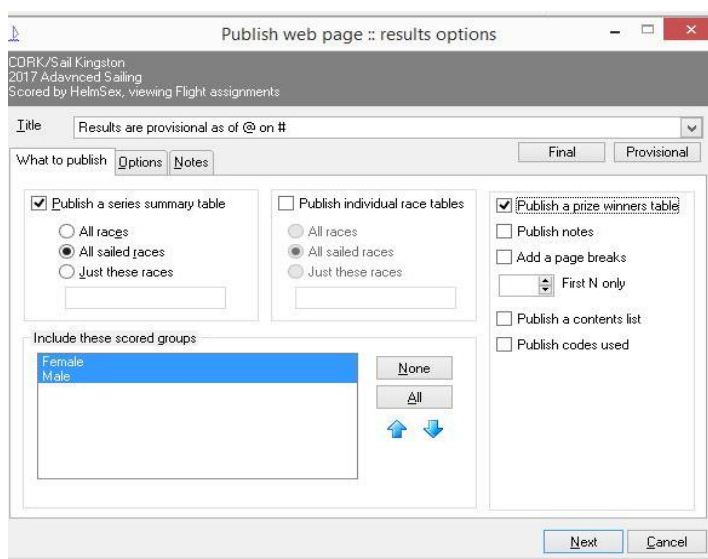


- 5) Eligible competitors are then determined in the value/fields of the 'Select competitors' window. Each Prize consists of selection of competitors e.g. Top Female Optimist would use Fleet and Rank.

Sailwave recognizes that there may be some trial & error to get these formulas correct, especially when there are different age groups to consider. Use the 'Test' button to check whether you've entered the correct values.



- 6) If all prize categories pass testing, save the file then go to the **Publish->Results** menu. Preview the prize table after checking off the 'Publish a prize winners table' at the right of this window.



In 'Preview', the prize table should appear at the bottom of the Provisional Results and look something like the example at right from the 2018 International Optimists.

Prizes

Category	Rank	Competitor
Top Three Overall	1st	Gold - Blue - CAN - Optimist Red 1310 Jackson Macaulay
Top Three Overall	2nd	Gold - Red - USA - Optimist Red 111 Stephan Baker
Top Three Overall	3rd	Gold - Red - USA - Optimist Red 21758 Sara Schumann
Top Three Female	1st	Gold - Red - USA - Optimist Red 21758 Sara Schumann
Top Three Female	2nd	Gold - Red - USA - Optimist Red 21419 Laura Hamilton
Top Three Female	3rd	Gold - Blue - USA - Optimist Blue 21977 Anna Vasilieva
Top Optimist Blue	1st	Gold - Blue - USA - Optimist Blue 21447 Gil Hackel
Top Optimist Blue	2nd	Gold - Blue - USA - Optimist Blue 21977 Anna Vasilieva
Top Optimist Blue	3rd	Gold - Yellow - CAN - Optimist Blue 1397 Owen Gormely
Top Optimist Blue	4th	Gold - Yellow - ISV - Optimist Blue 955 Tanner krygsveld
Top Optimist Blue	5th	Gold - Yellow - CAN - Optimist Blue 1731 Stephen Cramm
Top Optimist Red	1st	Gold - Blue - CAN - Optimist Red 1310 Jackson Macaulay
Top Optimist Red	2nd	Gold - Red - USA - Optimist Red 111 Stephan Baker
Top Optimist Red	3rd	Gold - Red - USA - Optimist Red 21758 Sara Schumann
Top Optimist Red	4th	Gold - Red - USA - Optimist Red 21419 Laura Hamilton
Top Optimist Red	5th	Gold - Yellow - USA - Optimist Red 21662 Jonnie Cifolillo

8.3 Confirm & Publish Final Results

Final Review & RO Sign-off

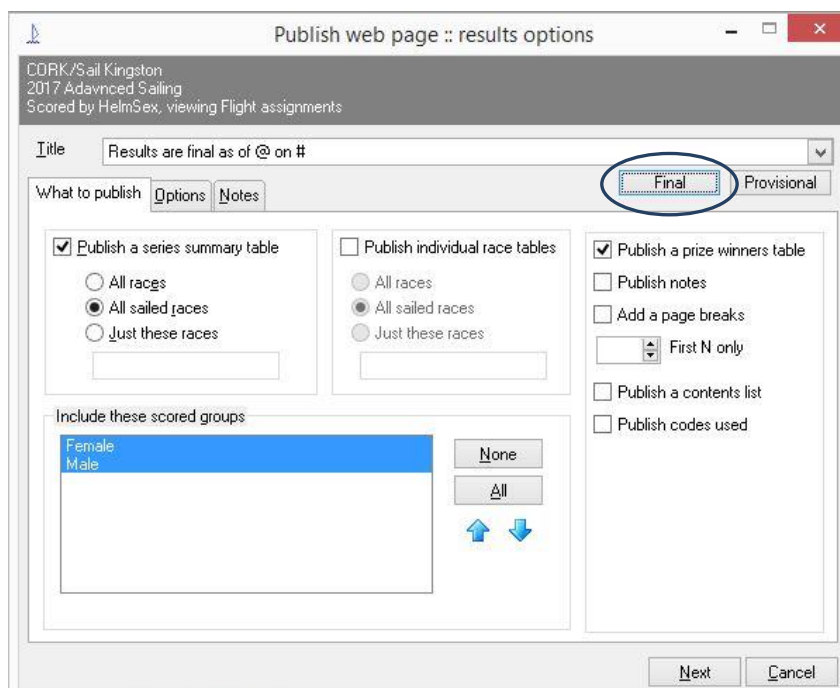
Before the Awards Ceremony, the course scorer should print a copy of the Provisional Results with Prize table for final review and sign-off by the RO. This review could include a discussion of how scoring changes were managed but at a minimum, it may provide commentary that the RO could use to help make the Awards Ceremony interesting and memorable.

If time is tight and the Award Ceremony is about to start, the final review by the RO and confirmation of results may take place even though not all scoring changes have been entered. The PRO and Chief Judge may determine that a pending scoring change will not affect competitors in or near the prize winners table.

However, the results shall never be signed-off by the RO until all scoring changes have been entered. As mentioned often in this manual, the RO is ultimately responsible for the conduct and results of racing on his/her course.

Publish Final Results

Once the RO has signed-off the Provisional Results certifying that no further changes are anticipated and the Awards Ceremony has begun, the Scorer has effectively been given authority to finalize the Results. This is done simply by selecting the 'Final' button in the **Publish web page :: results options** menu. Note that the 'Publish a prize winners table' box has been checked in the window below.



The screenshot shows the 'Publish web page :: results options' dialog box. The title bar indicates the window is for 'CORK/Sail Kingston 2017 Advanced Sailing' and 'Scored by HelmSex, viewing Flight assignments'. The 'Options' tab is active. The 'Title' field contains 'Results are final as of @ on #'. The 'What to publish' section has three sub-sections: 'Publish a series summary table' (checked), 'Publish individual race tables' (unchecked), and 'Publish a prize winners table' (checked). Under 'Publish a series summary table', 'All sailed races' is selected. Under 'Publish individual race tables', 'All sailed races' is selected. Under 'Publish a prize winners table', 'Publish notes' is unchecked, 'Add a page breaks' is unchecked, 'First N only' is set to 1, 'Publish a contents list' is unchecked, and 'Publish codes used' is unchecked. The 'Include these scored groups' list contains 'Female' and 'Male'. The 'None' and 'All' buttons are next to the list. The 'Next' and 'Cancel' buttons are at the bottom right.



8.4 Winding-up

Depending on the event, the Results Room may need to be disassembled or simply cleaned up in preparation for the next event. In either case, filing official records is the first step.

Records Management

Official records of results need to be retained in the CORK office in case of appeals or related questions from competitors. At the end of the event, clear all the Blue Boards and collect all the forms in the Course file folders (both the data forms and the printouts) as well as Competitor Lists, the Sign Out/Sign In penalty file, the Change of Information Forms, and Inquiries. Folders are then put in large brown envelopes or bags which are labelled by event, course, and fleet.

Closing the Results Room

After filing is completed, the Results Team can either start to set up the next CORK event or tear down the room on completion of all events.

Tear-down involves shutting off all computers and advising the IT support group about any specific issues within hardware or software observed during the event. Room dividers are stacked and office equipment such as boards, binders, file folders, pens and markers are bundled and placed in storage bins.

CHAPTER 9 - Continuous Improvement

9.1 Critical Success Factors

As noted in Chapter 1 Introduction, the timely collection, processing and communication of racing results to competitors, coaches, jury and other regatta stakeholders are critical success factors. Critical success factors are things that must go right to achieve an organization's vision and mission.

Information on each day's scoring - e.g. times of receipt and publishing results - will be collected by the Lead Scorer at the end of each race day. At the end of the event, this data will be tabulated and may form part of a report to the Event Management team.

The key to success is MEASUREMENT.
Measurement done right can transform your organization ... measurement is fundamental to high performance, improvement, and, ultimately, success ... in any area of human endeavor.

Dean R. Spitzer

[Transforming Performance Measurement](#)

As noted in Chapter 6, measuring performance in the sport of sailing is a particularly difficult. Even when the technical skills of the competitor and race management are peerless, weather conditions or equipment failures can impair performance on the water and impact results. Similarly, the performance of the Results Team and the Scoring System must be measured using attributes directly related to scoring.

9.2 Event Key Performance Indicators

At the end of each race day, the Lead Scorer is expected to collect data designed to measure two attributes of scoring – timeliness and effectiveness.

Timeliness – Time from receipt of finish sheets to publishing & posting

As noted in Chapter 6, completion of finish sheets by on-water recorders may be delayed by several factors beyond the control of the scorer. But once the finish sheet has been received in the Results Room, the Results Team is expected to enter the data quickly and correctly, proofread and preview the results, publish on the CORK website, then print and post provisional results after each race.

The length of time will vary depending on the number of boats per fleet – i.e. more boats to enter, more time needed. However, for every event, as scorers become more familiar with the fleet and experienced, the average time between data entry and publishing should decrease.

$$\text{Effectiveness} = \frac{\text{Number of Scoring Inquiries}}{\text{Number of Boats}}$$

Not all Scoring inquiries are equal. After reviewing the details in the scoring inquiry form, the Lead Scorer will ascertain whether the scoring inquiry is related to a request for redress or pending protest. While this information is important for RO's to see, they should not be included in the calculating the effectiveness of the Results Team.

Although teamwork is paramount, the Results Team's performance should be measured by scoring inquiries directly related to errors by the on-water recorders on the finish sheets and the course scorer. As noted in Chapter 6, these errors are often easily averted by proofreading, or corrected after consultation with the race committee and additional race data at the end of the race.

9.3 Scoring System Performance

At the end of the season, CORK's Chief Scorer will review the performance summaries for each event and transfer the data to a performance measurement framework (PMF). The PMF will be used to track the above attributes over time, evaluate the performance of CORK's Scoring System and identify possible improvements that should be made each year. A performance dashboard will be developed to summarize the performance metrics.

A request for competitors/participants' feedback on the performance of the Results Team and Scoring function will be included in CORK's annual evaluation process. In addition, a debrief questionnaire and the performance dashboard will be sent to each member of the Results Team at year-end to help identify where improvements can be made to the Scoring System in the following year. Over time, a scorecard for scoring is anticipated which will help the Results Team predict areas that will need special attention as the portfolio of CORK events grows.

APPENDIX A - Glossary

CRMS – CORK Race Management System

DNC – Did Not Compete. The score given to a boat that is entered in a race but does not show up to the starting area

DNE – Disqualification Not Excludable.

DNF – Did Not Finish. The score given to a boat that starts the race but does not finish.

DSQ – Disqualified. The score of a boat that, after a protest hearing, is given a penalty of disqualification by the Protest Committee.

Finish – A boat finishes when any part of her hull, crew or equipment in normal position ~~ROsses~~ crosses the finish line from the course side.

FTP – File Transfer Protocol (FTP) is a set of rules used to transfer computer files between a client and server on a computer network.

Jury – A panel of judges appointed to hear protests or redress hearings

Jury Secretary – Individual who receives and logs scoring inquiries and administers paperwork relating to protest hearings.

Line Sighter – A member of the race committee appointed to identify boats OCS at the start and to identify sail number of boat finishing and any protest flags at the finish.

Low-point scoring system – The most commonly used scoring system (Appendix A of the RRS)

OCS – On Course Side. A score given to a boat that has ~~ROssed~~ crossed the starting line before the starting signal and does not return to start properly.

NoR – Notice of Race

Protest – An allegation that another boat has broken a rule.

Protest Committee – A jury or group of people appointed to hear protests

Protest Flag – A red flag displayed by a competitor to signal his intention to protest.

RO – Race Officer. The leader of the race committee on a specific course.

PRO – Principal Race Officer. The leader of race management when there are several courses at one event. Each course has its own race management team.

Race Committee – A team of people who run the race on a specific course.

RET – Retired. The score given to a boat that retires.

RDG – Redress Given. The score of the boat that, after a protest hearing, is given redress under RRS 62.

RRS – Racing Rules of Sailing.

Scorer – The person who calculates the score of each boat after the race.

Scoring Penalty – An alternative penalty to disqualification.

SI's – Sailing Instructions

STMP – Simple Mail Transfer Protocol (STMP) is a set of rules used for sending and receiving emails.

World Sailing – The international sailing association responsible for overseeing world class competition including registering competitors (formerly ISAF).



APPENDIX B – RRS Part 7 Race Organization & Appendix A: Scoring

PART 7

RACE ORGANIZATION

84 GOVERNING RULES

The organizing authority, race committee, technical committee, protest committee and other race officials shall be governed by the *rules* in the conduct and judging of races.

85 CHANGES TO RULES

85.1 A change to a *rule* shall refer specifically to the *rule* and state the change. A change to a *rule* includes an addition to it or deletion of all or part of it.

85.2 A change to one of the following types of *rules* may be made only as shown below.

<i>Type of rule</i>	<i>Change only if permitted by</i>
Racing rule	Rule 86
Rule in a World Sailing code	A rule in the code
National authority prescription	Rule 88.2
Class rule	Rule 87
Rule in the notice of race	Rule 89.2(b)
Rule in the sailing instructions	Rule 90.2(c)
Rule in any other document governing the event	A rule in the document itself

86 CHANGES TO THE RACING RULES

86.1 A racing rule shall not be changed unless permitted in the rule itself or as follows:

- (a) Prescriptions of a national authority may change a racing rule, but not the Definitions; the Basic Principles; a rule in the Introduction; Part 1, 2 or 7; rule 42, 43, 63.4, 69, 70, 71, 75, 76.3, 79 or 80; a rule of an appendix that changes one of these rules; Appendix H or N; World Sailing Regulation 19, 20, 21, 22, 35 or 37.

- (b) The notice of race or sailing instructions may change a racing rule, but not rule 76.1 or 76.2, Appendix R, or a rule listed in rule 86.1(a).
- (c) Class rules may change only racing rules 42, 49, 50, 51, 52, 53 and 54.

86.2 In exception to rule 86.1, World Sailing may in limited circumstances (see World Sailing Regulation 28.1.3) authorize changes to the racing rules for a specific international event. The authorization shall be stated in a letter of approval to the event organizing authority and in the notice of race and sailing instructions, and the letter shall be posted on the event's official notice board.

86.3 If a national authority so prescribes, the restrictions in rule 86.1 do not apply if rules are changed to develop or test proposed rules. The national authority may prescribe that its approval is required for such changes.

87 CHANGES TO CLASS RULES

The notice of race or sailing instructions may change a class rule only when the class rules permit the change, or when written permission of the class association for the change is displayed on the official notice board.

88 NATIONAL PRESCRIPTIONS

88.1 Prescriptions that Apply

The prescriptions that apply to an event are the prescriptions of the national authority with which the organizing authority is associated under rule 89.1. However, if boats will pass through the waters of more than one national authority while *racing*, the notice of race or sailing instructions shall identify the prescriptions that will apply and when they will apply.

88.2 Changes to Prescriptions

The notice of race or sailing instructions may change a prescription. However, a national authority may restrict changes to its prescriptions with a prescription to this rule, provided World Sailing approves its application to do so. The restricted prescriptions shall not be changed.

89 ORGANIZING AUTHORITY; NOTICE OF RACE; APPOINTMENT OF RACE OFFICIALS

89.1 Organizing Authority

Races shall be organized by an organizing authority, which shall be

- (a) World Sailing;
- (b) a member national authority of World Sailing;
- (c) an affiliated club;
- (d) an affiliated organization other than a club and, if so prescribed by the national authority, with the approval of the national authority or in conjunction with an affiliated club;
- (e) an unaffiliated class association, either with the approval of the national authority or in conjunction with an affiliated club;
- (f) two or more of the above organizations;
- (g) an unaffiliated body in conjunction with an affiliated club where the body is owned and controlled by the club. The national authority of the club may prescribe that its approval is required for such an event; or
- (h) if approved by World Sailing and the national authority of the club, an unaffiliated body in conjunction with an affiliated club where the body is not owned and controlled by the club.

In rule 89.1, an organization is affiliated if it is affiliated to the national authority of the venue; otherwise the organization is unaffiliated. However, if boats will pass through the waters of more than one national authority while *racing*, an organization is affiliated if it is affiliated to the national authority of one of the ports of call.

89.2 Notice of Race; Appointment of Race Officials

- (a) The organizing authority shall publish a notice of race that conforms to rule J1.
- (b) The notice of race may be changed provided adequate notice is given.
- (c) The organizing authority shall appoint a race committee and, when appropriate, appoint a protest committee, a technical committee and umpires. However, the race committee, an international jury, a technical committee and umpires may be appointed by World Sailing as provided in its regulations.

90 RACE COMMITTEE; SAILING INSTRUCTIONS; SCORING

90.1 Race Committee

The race committee shall conduct races as directed by the organizing authority and as required by the *rules*.

90.2 Sailing Instructions

- (a) The race committee shall publish written sailing instructions that conform to rule J2.
- (b) When appropriate, for an event where entries from other countries are expected, the sailing instructions shall include, in English, the applicable national prescriptions.
- (c) The sailing instructions may be changed provided the change is in writing and posted on the official notice board before the time stated in the sailing instructions or, on the water, communicated to each boat before her warning signal. Oral changes may be given only on the water, and only if the procedure is stated in the sailing instructions.

90.3 Scoring

- (a) The race committee shall score a race or series as provided in Appendix A using the Low Point System, unless the notice of race or sailing instructions specify some other system. A race shall be scored if it is not *abandoned* and if one boat sails the course in compliance with rule 28 and *finishes* within the time limit, if any, even if she retires after *finishing* or is disqualified.
- (b) When a scoring system provides for excluding one or more race scores, any score that is a Disqualification Not Excludable (DNE) shall be included in a boat's series score.
- (c) When the race committee determines from its own records or observations that it has scored a boat incorrectly, it shall correct the error and make the corrected scores available to competitors.

Part 7 RACE ORGANIZATION

91 PROTEST COMMITTEE

A protest committee shall be

- (a) a committee appointed by the organizing authority or race committee;
- (b) an international jury appointed by the organizing authority or as prescribed in the World Sailing Regulations. It shall be composed as required by rule N1 and have the authority and responsibilities stated in rule N2. A national authority may prescribe that its approval is required for the appointment of international juries for races within its jurisdiction, except World Sailing events or when international juries are appointed by World Sailing under rule 89.2(c); or
- (c) a committee appointed by the national authority under rule 71.2.

92 TECHNICAL COMMITTEE

- 92.1** A technical committee shall be a committee of at least one member and be appointed by the organizing authority or the race committee or as prescribed in the World Sailing Regulations.
- 92.2** The technical committee shall conduct equipment inspection and event measurement as directed by the organizing authority and as required by the *rules*.



APPENDIX A

SCORING

See rule 90.3.

A1 NUMBER OF RACES

The number of races scheduled and the number required to be completed to constitute a series shall be stated in the notice of race or sailing instructions.

A2 SERIES SCORES

A2.1 Each boat's series score shall, subject to rule 90.3(b), be the total of her race scores excluding her worst score. (The notice of race or sailing instructions may make a different arrangement by providing, for example, that no score will be excluded, that two or more scores will be excluded, or that a specified number of scores will be excluded if a specified number of races are completed. A race is completed if scored; see rule 90.3(a).) If a boat has two or more equal worst scores, the score(s) for the race(s) sailed earliest in the series shall be excluded. The boat with the lowest series score wins and others shall be ranked accordingly.

A2.2 If a boat has entered any race in a series, she shall be scored for the whole series.

A3 STARTING TIMES AND FINISHING PLACES

The time of a boat's starting signal shall be her starting time, and the order in which boats *finish* a race shall determine their finishing places. However, when a handicap or rating system is used a boat's corrected time shall determine her finishing place.

A4 LOW POINT SYSTEM

The Low Point System will apply unless the notice of race or sailing instructions specify another system; see rule 90.3(a).



- A4.1** Each boat *starting* and *finishing* and not thereafter retiring, being penalized or given redress shall be scored points as follows:

<i>Finishing place</i>	<i>Points</i>
First	1
Second	2
Third	3
Fourth	4
Fifth	5
Sixth	6
Seventh	7
Each place thereafter	Add 1 point

- A4.2** A boat that did not *start*, did not *finish*, retired or was disqualified shall be scored points for the finishing place one more than the number of boats entered in the series. A boat that is penalized under rule 30.2 or that takes a penalty under rule 44.3(a) shall be scored points as provided in rule 44.3(c).

A5 SCORES DETERMINED BY THE RACE COMMITTEE

A boat that did not *start* or *finish* or comply with rule 30.2, 30.3, 30.4 or 78.2, or that retires or takes a penalty under rule 44.3(a), shall be scored accordingly by the race committee without a hearing. Only the protest committee may take other scoring actions that worsen a boat's score.

A6 CHANGES IN PLACES AND SCORES OF OTHER BOATS

- A6.1** If a boat is disqualified from a race or retires after *finishing*, each boat with a worse finishing place shall be moved up one place.
- A6.2** If the protest committee decides to give redress by adjusting a boat's score, the scores of other boats shall not be changed unless the protest committee decides otherwise.