

Data/Digital Strategy

1 Introduction

This has been my second year on the committee, and I continue to be impressed by the enormous amount of effort invested on our behalf by many of our officers. This year I've started to get a much broader understanding of the various systems used to support the sport and how they all fit together. I'm sure there are still holes in my knowledge!

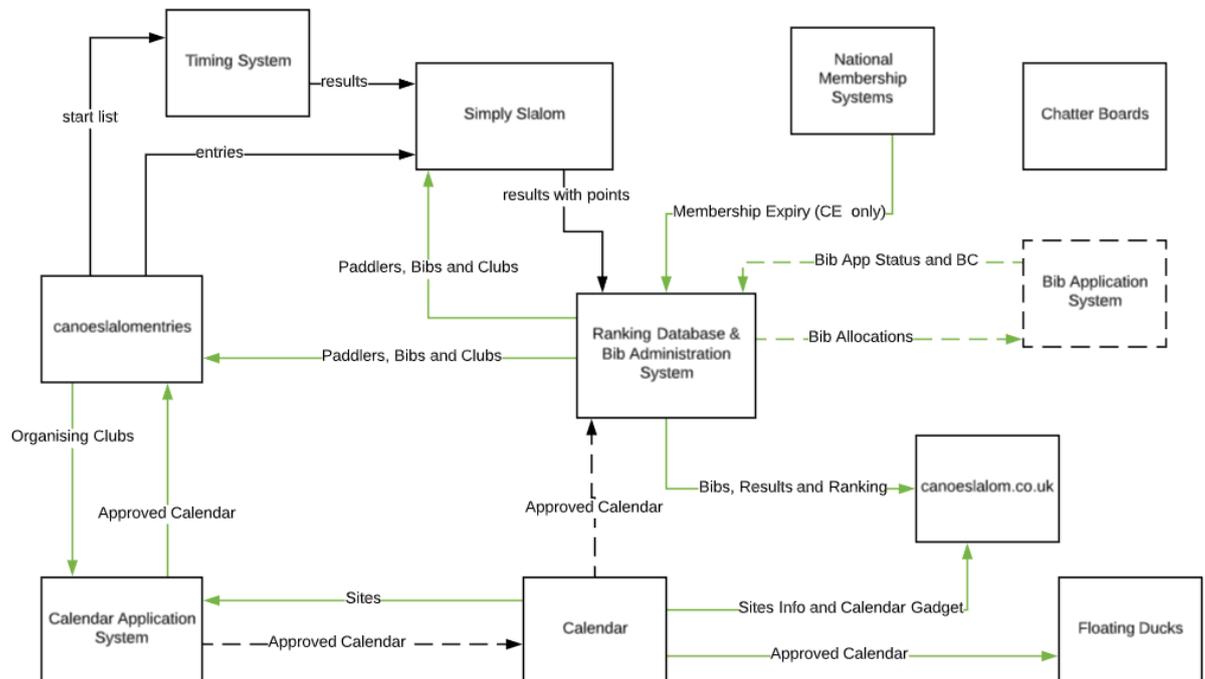
2 Canoe Slalom Software

The sport of canoe slalom is supported by a number of software systems almost entirely developed by volunteers. The systems use a variety of software, data hosting and environments and are largely stand alone, but data is passed between them, sometimes automatically through system programs and other times via csv files which are download and then uploaded manually by key individuals.

The following diagram reflects my understanding of how the various systems fit together. To aid simplicity the following are *not* included:

- external systems, whether software or manual
- hardware (tutti etc)
- systems used by only one or two clubs

The dotted lines indicate future intentions! Green lines are automated flows, black lines indicate need for manual intervention.



System	Purpose
Timing System (Paid for package. Key internal contact Andy Grudinzki).	For timing and penalties at Prem and Div 1 Competitions Online display of results
Simply Slalom (Initially Ken Trollope. Now Dave Spencer)	For timing, penalties and points & promotion calculation at lower division competitions. On-the-day start lists. Intermediate processing of Timing system output to calculate points and provide ranking database input.
The Website (Nick Penfold) www.canoeslalom.co.uk	To provide a central point of information for all things slalom
Chatter boards (Stephen M) www.giveitfish.co.uk/phpBB3	Discussion forums
Ranking Database & Bib Admin (Duncan Berriman)	Auto-allocate and record bibs and use results to provide current ranking of paddlers. Historical data of results and rankings
Calendar (Ben Collins) https://benedict-collins.com/SlalomSites/SlalomSiteExample.html	Current and past years' calendar data. Sites data. Calendar Gadget (the calendar that you see on the Website).
Floating Ducks (Matt Stephens) www.floatingducks.co.uk/slalom	Allows paddlers to calculate own points based on competition scenarios. Alternative calendar display
CanoeSlalomEntries (Dee Lindesay) www.canoeslalomentries.co.uk	Takes online entries and payment. Allows organisers to manage entries. Creation and display of dynamic start lists.
Calendar Application System (Dee Lindesay) www.canoeslalomentries.co.uk/calendar-applications	Online gathering and processing of applications for <i>next</i> year, to allow approval at ACM and then gathering of data for the yearbook.
Bib Application System (proposed) (Matt Stephens)	Take online bib applications and payment. Storage of paddler contact data

3 New This Year

Software systems never stand still (those that try to eventually fail as they cease to be compatible with new browsers and operating software). Therefore, most of the systems above will have seen maintenance and updates (and probably bug fixing) during the year even if they haven't been obvious to everyone.

Some of the changes that we can remember(!) are as follows

3.1 Simply Slalom

Simply slalom has undergone a major rewrite over the last year, making it slicker and more responsive and providing more checking and validation to user input.

3.2 Backup Time Calculator

Want to calculate a backup time without disturbing the entry clerk? Go to <https://benedict-collins.com/utils/backuptime.html> and see a useful little site created by Ben Collins for just that purpose.

3.3 Ranking Database

- Auto-allocation of Div 3 bib numbers for div 4 promotees so that they can enter online as soon as results are received and loaded.
- Extraction of basic Membership data from British Canoeing via an Application Interface (API) and corresponding reports for bib officers.
- A new Application Interface (API) to aid development of a Bib Application System (see below)
- Controls to prevent human error when loading results (eg double loading)
- Changes to promotion certificate processing so that only Div 4 promotees receive them by post. Other promotees receive them by email unless otherwise requested
- Percentiles for waiting list sorting.
- Report for organisers of those who can get promoted on first day of a double

3.4 Calendar Applications

It was agreed to move the calendar application process online to try and make it easier to negotiate and agree which club would run competitions when. The system was new for this year so expect changes as we move forward! So far there is core functionality for gathering and maintaining most of the data that we need for the yearbook:

- Accept applications to run competitions on-line
- See the latest version of the proposed calendar at any time (subject to logging in)
- Import of sites data from the existing Calendar System to ensure naming consistency with ability for calendar officer to add extra data locally for yearbook
- Admin functions to control open dates, late dates, closing dates etc.
- Ability to see draft year-book views and maintain competition detailed data
- Print a PDF of the current calendar.

3.5 Online Entries

- Improved waiting list management and sorting of the waiting list to meet new rules
- Organisers manage promotions button for Div 4 promotees to div 3
- Send automated emails on competition cancellation
- Allowing races to be “named” eg to say Scottish Championships rather than just Open.
- Allow organisers to print cards based on date that entry was received.
- Preparation work for Strong Customer Authentication – see below.
- Scratch C2 pairs can now enter online.
- Allowing guest paddlers to enter “Open” races.
- Button to duplicate start list order from one day to another

4 Coming Soon

There will inevitably be rule changes at the ACM which will impact the various systems, but even without these there are various developments planned.

4.1 Online Bib Applications

There is a real desire amongst paddlers to be able to complete bib applications online without the current effort associated with obtaining the right size envelopes and correct stamps for postage. It is not a simple task and there is still work to do to ensure that the new system works for everyone including those that need to operate it! However, development *is* well underway.

Normal procedures will still operate at the start of next season – but all being well there may be a phased introduction of a new system as the year progresses.

4.2 Ranking Database

- Extend automatic extraction of membership data to include other nations (currently done by email)
- Link to postal addresses and email addresses in the national membership systems to save needing separate storage and thus improve security of data.

4.3 Calendar Application System

The first one of the following must be underway by the ACM or we'll have problems!

- Outputs for the year-book
- Outputs for loading to the Calendar System (and thus to the Website)
- Automated import to canoeslalomentries (for those competitions intending to use online entries)
- Safety plans management

4.4 Canoe Slalom Entries

- Removal of the sponsorship input for entries. Sponsor is now pulled from the ranking database and competitions will be able to ask for specific additional information at the time of entry.
- Better system for managing allocation of practise slots and allowing organisers to move entries between slots.
- Use national association membership data from the ranking database to warn paddlers and organisers when membership is expiring. (Paddlers need to watch this as if your membership has expired you will not be allowed to race).

4.4.1 Strong Customer Authentication

Strong Customer Authentication (SCA) is a new European regulatory requirement that officially went into effect on 14th September. There have been various delays and the latest announcement is that the new requirements should be enforced as of 31 December 2020.

The new requirements have required a major rewrite of the payment processing part of canoeslalomentries (to work with the new API issued by Stripe, our payment providers) and the new code will be going live before the start of next season.

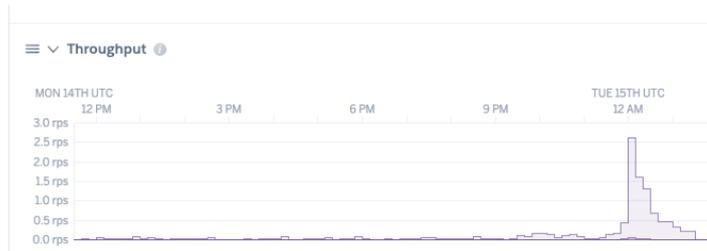
We don't yet know exactly what the impact will be; it is very much down to how the banks respond. What *might be* seen:

- The interface for entering card details will look different.
- The user may be sent a one-time code to their phone by their bank when they are paying. Anyone who shops online may have already started seeing these codes and this will probably become more common everywhere.
- There may be more payments failing at the time we try to charge the card. If payment fails an automated email will be sent; please follow the instructions promptly to make life easier for the organiser!
- There may be fewer charge failures.
- New bugs! I've tried to test thoroughly, but if something looks like it has gone wrong please let me know

5 Statistics

5.1 The Day the World Went Mad

Online entries opened for many competitions this year on 15th January and the online system went from tick-over to peak almost immediately. The graph below shows the throughput of the system on the host and the sudden spike in activity.



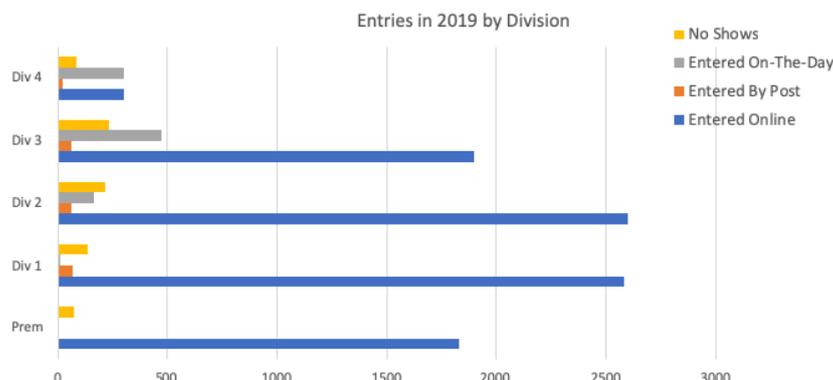
- There were over 3,100 entries on the first day.
- Peak entry times were midnight and then 7am (but there were 75 entries around 3am!)
- About 2/3rds of day-one entries came from Division 1 paddlers.
- Of the day-one entries around 1/3 were cancelled later in the season (compared with 1/4 last year). Some of the cancellations will be due to promotions or competition cancellation, but this would not account for all of the cancellations.
- In spite of the onslaught, no ranking events were full by the end of the day (there was one officials race that was full)

5.2 Competitions and Entries Online

Apart from a handful of Div 4s and the winter slaloms, I believe that all competitions took online entries this year and we processed over 15,000 entries. In percentage terms advance entries still appear to be on the rise and where paddlers enter in advance the vast majority do so online:

- Prems and Div 1s always need to enter in advance and almost always enter online
- 94% of Div 2s and 80% of Div 3s enter in advance and in both cases 97% of those enter online
- Div 4s are slightly harder to match up as they are not ranked, but it would appear that only 1/2 enter in advance, but of those that do so about 93% now enter online

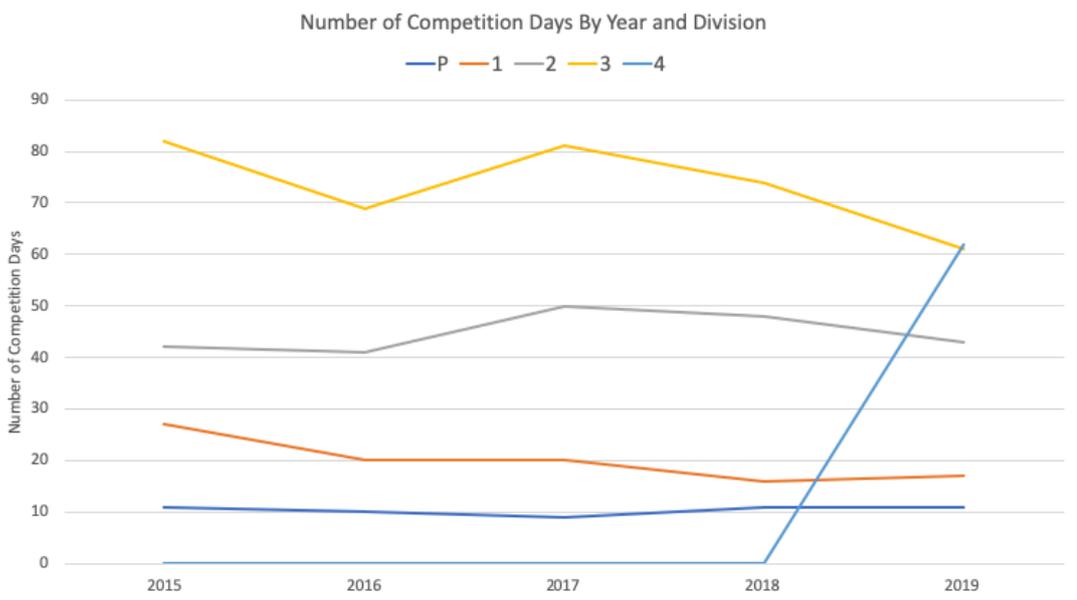
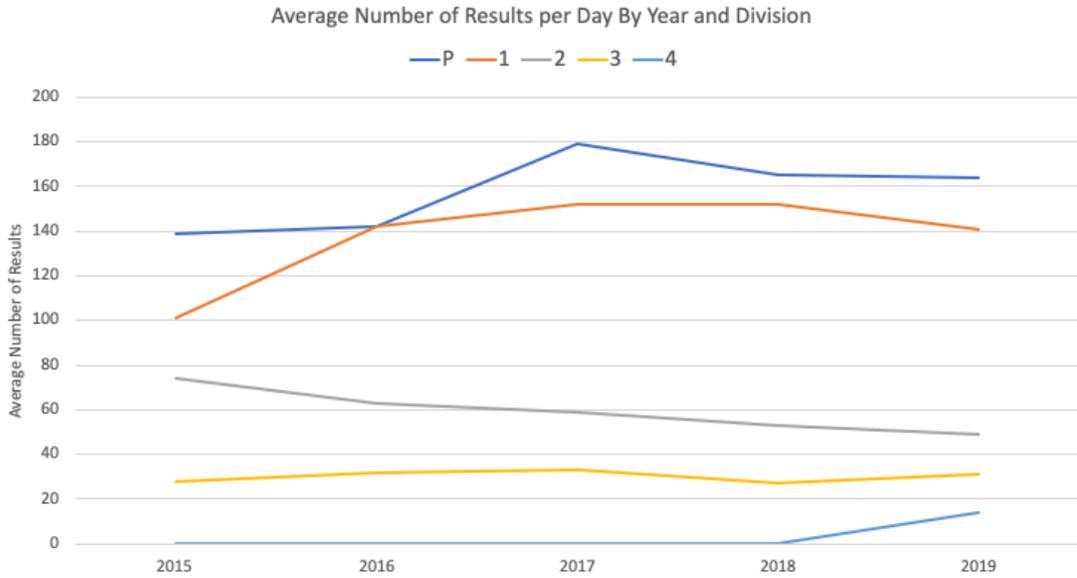
Note that identifying on the day entries vs online is carried out by automated matching process. I assume that anyone appearing in the results who I cannot match on canoeslalom entries has entered on the day (this may account for the numbers of noshows at Div 4). I also cannot match *all* competitions, but do match the majority



5.3 Is Race Attendance Falling?

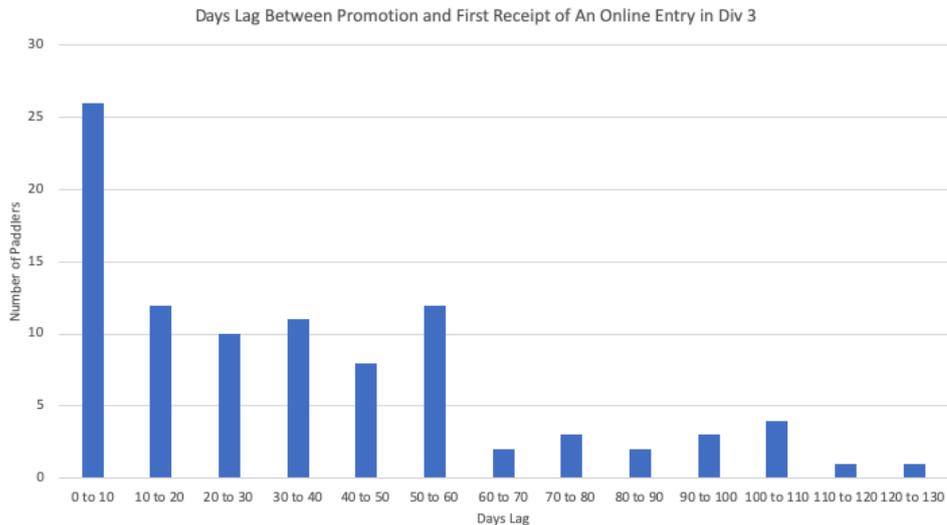
The following graph looks at the average number of results per competition day over time. It is sometimes said that opportunities to paddle are more frequent/less frequent and that this impacts attendance. So, the second graph looks at the number of days by division for comparison. Notes

- Data taken from the ranking db
- Cancelled competition days are not counted (only days where *someone* is paddling in the division counted)
- Div 4s only added to ranking db this year



5.4 Benefits and Otherwise of Automatic Bib Allocation

This year the ranking database has been automatically allocating div 3 bib numbers to paddlers on their promotion from div 4. There are downsides (bib officers end up with piles of bibs that are never claimed), but the upside is that newly promoted paddlers can, and do, enter online within a few days of promotion.



5.5 Online Payments and Charge Failures

During the year we have processed over 6000 payments of which 2.5% failed when we tried to charge (this is slightly up on last year).

The vast majority of users never get a failure and those that do respond quickly when they receive the “failed payments” email and payment is quickly made without further intervention. If you do receive an email to say that a charge has failed, please login and provide new details – do not wait for the organiser to chase you.

About a quarter of the payment failures are, according to the code from the bank, due to “*Insufficient Funds*”. Please make sure that you have sufficient funds in the account to cover the entry costs. If you cannot remember when your next payment is due, go to www.canoeslalomentries.co.uk/my-account and go to the payments tab.