Specification for uploading race results onto the Team Cambridge Cycling Club website

Version 1-1 18 September 2014

Requirement

The objective is to provide a program which will simplify the up load of weekly race results onto the Team Cambridge club website. The program needs to integrate into the existing website databases used to display club's programme of events and race results.

Background

Rider participation at Team Cambridge club's events sees riders from many different clubs attending. For riders outside of Team Cambridge we only provide a time for their ride. Depending on the type of event Team Cambridge riders will not only be receive a ride time but their results may count towards up to 3 additional season long competitions, therefore additional points or handicap times will be required to be provided.

The current system relies on the race results being calculated in a complex Microsoft Excel spread sheet. The data is then manipulated and then copied into a second spreadsheet where additional information is added to create the final data format. This is then converted into a csv file and uploaded, via the online database admin page, onto the website databases. This information will then be displayed on a range of webpages for the events result and various competitions.

Website structure

The results pages of the website rely on a series of SQL databases to provide the information to be displayed. The following databases are used for various functions:

Results: hold the actual riders details and their results for any particular event

Events: hold details of the events the club is promoting

Configuration: holds information required by some of the club competitions to calculate results

Courses: holds map hyperlink information for the courses the club uses.

A series of unique event codes are used to ensure the correct information is used and displayed. Each event code will dictate what information will be drawn from the database and displayed on the web page. Table 1 details the event codes used with all information required for each type of event or competition.

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Table 1: information requirements

Data code		Type of event: Circuit Series	Evening 10 Series	Handicap 25	Hill Climb Series	Open	Standard	db field name
Event code		CE	TR	HC	HL	OP	ST	Code
Position	Pos	●	●	●	●	●	●	Position
Riders name		●	●	●	●	●	●	Name
Riders club		●	●	●	●	●	●	Club
Race time	Rt	●	●	●	●	●	●	Time
Personal best	PB	●	●	●	●		●	PB
Transmedia points	TmPt		●					Trans-M Points
Handicap points	HcPt		●					H-cap Points
Circuit points	CirPt							Circuit Points
Juvenile points	JuvPt		●					Juv Points
Handicap Time		$HcTR_6$	$HcTR_{10}$	$HcTR_{25}$				H-cap Time
Handicap Position	HcPl			●				H-cap Placing
Hill Climb points	HClPt				●			Hillclimb Points
Event course		●	●	●	●	●	●	Ev-Course
Event date		●	●	●	●	●	●	Ev-Date

Calculation methodology

The following methodology is used to calculate the data requirements for the various race results and Club competitions specified in Table 1. Table 3 details the definitions of the data codes used within the calculation methodology. The Team Cambridge handicap tables are attached as Appendix A.

Ride time - Rt

Ride time is the time taken by each rider to cover the course using the following formula:

Rt = WT - StPos

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Position - Pos

Ever rider is assigned a position placing relating to their ride time and is ordered fastest to slowest. Where a rider did not start (DNS) they are assigned 98, where a rider did not finish (DNF) they are assigned 99. The following methodology is used to assign placing's:

Stage 1: Sort Rt low to high, assign placing starting at 1 for fastest = Pos

Note: the webpage code detects these numerals and will display the appropriate DNS and DNF on the results page.

Transmedia Points - TmPt

For a 10mTT evening series event each Team Cambridge (excluding day members) rider will be awarded points based on their relative finishing position, with the fastest rider being awarded 20 points down to 1 point at 1 point increments. All riders finishing below 20th position will be awarded 1 point. The following methodology is used to assign points

Stage 1: Sort Rt low to high, assign points 20-1 = TmPt

Handicap Points - HcPt

For a 10mTT evening series event each Team Cambridge (excluding day members) rider will be awarded points based on their relative finishing position, after a handicap time (HcTR) has been deducted from their ride time (Rt). The fastest rider will be awarded 20 points down to 1 point at 1 point increments. All riders finishing below 20th position will be awarded 1 point. The following formula and methodology is used to calculate the handicap time (stage 1) and assigning of points (stage 2):

Stage 1: Rt - HcT_{10} = HcTR

Stage 2: Sort HcTR low to high, assign points 20-1 = HcPt

Circuit Points - CirPt

For a circuit event each Team Cambridge (excluding day members) rider will be awarded points based on their relative finishing position, after a handicap time (HcCirTR) has been deducted from their ride time (Rt). The fastest rider will be awarded 20 points down to 1 point at 1 point increments. All riders finishing below 20th position will be awarded 1 point. The following formula and methodology is used to calculate the handicap time (stage 1) and assigning of points (stage 2):

Stage 1: Rt - HcT_{6} = HcCirTR

Stage 2: Sort HcCirTR low to high, assign points 20-1 = CirPt

Juvenile Points - JuvPt

For a 10mTT evening series event each juvenile Team Cambridge (excluding day members) rider will be awarded points based on their relative finishing position from their ride time (Rt). The fastest rider will be awarded 10 points down to 1 point at 1 point increments. All juvenile riders finishing below 10th position will be awarded 1 point. The following methodology is used to assign points:

Stage 1: Sort Rt low to high, award points 10-1 = JuvPt

Note: Juvenile riders are identified by the '(Juv)' tag added to the end of their name.

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Hill Climb Points - HClPt

For a Hill Climb series event each Team Cambridge (excluding day members) rider will be awarded points based on their relative finishing position from their ride time (Rt). The fastest rider will be awarded 20 points down to 1 point at 1 point increments. All riders finishing below 20th position will be awarded 1 point. The following methodology is used to assign points:

Stage 1: Sort Rt low to high, award points 20-1 = HClPt

25m Handicap

For a 25mTT handicap event each Team Cambridge rider (excluding day members) will have their handicap finishing position (HcPl) determined after their handicap time (HcTR) has been deducted from their ride time (Rt). Handicap placing will be sorted with the fastest (HcTR) rider being awarded 1st place and slowest last. The following formula and methodology is used to calculate the handicap time (stage 1) and assigning of points (stage 2):

Stage 1: Rt - HcT_{25} = HcTR

Stage 2: Sort HcTR low to high, award placing = HcPl

Open events

Due to the complexity of open events their results are not normally uploaded on to the Results database and are linked to the results page as separate documents. However the functionality remains available should it be required.

Assigning placing and points

The general methodology is to assign points or placing at one point intervals.

Where a two or more riders times are equal the points or placing assigned should be equal, examples are shown in table 2.

Table 2: examples assigning of placing and points

Normal placing	
Finishing order	Assigned place/points
1st fastest	1
2nd fastest	2
3rd fastest	3
4th fastest	4
5th fastest	5

With 2 equal placing	
Finishing order	Assigned place/points
1st fastest	1
Equal 2nd fastest	2
Equal 2nd fastest	2
3rd fastest	4
4th fastest	5

Multiple equal placing	
Finishing order	Assigned place/points
1st fastest	1
Equal 2nd fastest	2
Equal 2nd fastest	2
Equal 2nd fastest	2
3rd fastest	5

Table 3: data codes and definitions

Data Code	Definition
CirPt	Calculated Circuit points awarded
HcCirTR	Calculated handicap circuit time
HClPt	Calculated Hill Climb points awarded
HcPl	Calculated handicap placing
HcPt	Calculated handicap points awarded
HCt	
HcT10	The handicap time (using 10 miles in the Handicap Table) associated with the riders best 10m TT time over the current and preceding season
HcT25	The handicap time (using 25 miles in the Handicap Table) associated with the riders best 25m TT time over the current and preceding season
HcT6	The handicap time (using 6-18 in the Handicap Table) associated with the riders best appropriate circuit race time over the current and preceding season.
HcTR	Calculated riders handicap time result
JuvPt	Juvenile points awarded
Rt	Ride time taken by the rider to complete the course = WT- StPos
StPos	The starting time (position) of the rider i.e. No 1 starts at 0:01:00
TmPt	Calculated Transmedia points awarded
WT	The time taken from the timekeepers watch as the rider completes the course
PB	Single integer indicating a rider has equalled or beaten their personal best for the current or preceding season.

Results Database format

Table 4 details the fields and their properties as currently used in the Results database

Table 4: Current Results database field specification

Field Name	Type	Field length	Data format	Null	Default	Comments
Code	varchar	50	'event code' + 'ddmmyy'	No		Example for Evening 10 series on 16 June 2014 = 'TR160614'
Position	smallint	6		Yes	null	Default position for riders who: Did not start: 98 Did not finish: 99
Name	varchar	100		No		
Club	varchar	100		Yes	Null	
Time	Time	N/A	hh:mm:ss	Yes	00-00-00	
PB	smallint	1		Yes	Null	Where a rider has equalled or beaten his personal best the numeral '1' is stored in the PB field, otherwise it is left blank.
Trans-M Points	varchar	20		Yes	Null	
H-cap Points	varchar	20		Yes	Null	
Circuit Points	varchar	20		Yes	Null	
Juv Points	varchar	2		Yes	Null	
H-cap Time	varchar	8		Yes	Null	The format of 'hh:mm:ss' is to be used. However all leading zeros should be omitted. This should leave only the actual time being displayed: Example time of 1 minute 25 seconds, would be stored using the format of 'm:ss' and displayed as 1:25
H-cap Placing	char	2		Yes	Null	
Hillclimb Points	char	2		Yes	Null	
Ev-Course	varchar	25		No		Course code of the event. Example 'F2/10 CAX'
Ev-Date	Date	N/A	yyyy-mm-dd	No	00-00-00	Date of the event