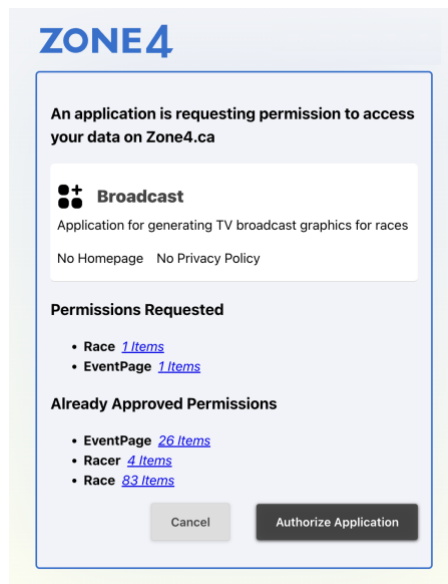


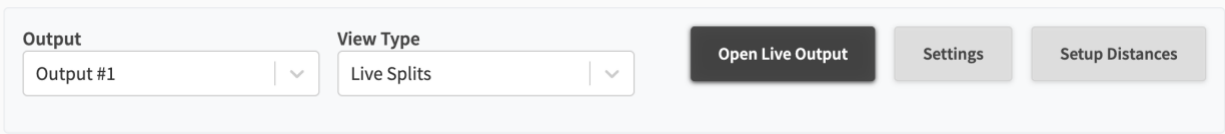
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Setup the race file and access the broadcast app

1. Create one race file per day whenever possible. This significantly simplifies race-day management. Keep in mind that the TV team must update all of their broadcast links and feeds when a new race file is created, and this process takes time to configure properly.
2. For consistency and efficiency, ensure each race is properly linked to its parent event. This allows broadcast settings to be retained and reused across all races within the event, reducing the need for repeated configuration.
3. After creating the race, navigate to <https://tools.zone4.ca/broadcast/>, log in and search for the race you just created to access its broadcast configuration.
4. If prompted, sign in to your account and authorize the Broadcast application to access the event and race data. This permission is required for the system to retrieve and display the correct information.
5. Make sure the computer is on local time.



Main setting Panel



The main setting panel contains two dropdown menus and three buttons. The 'Output' dropdown is set to 'Output #1'. The 'View Type' dropdown is set to 'Live Splits'. To the right are three buttons: 'Open Live Output' (dark grey), 'Settings' (light grey), and 'Setup Distances' (light grey).

Output: You can configure multiple outputs if you require more than one feed in your broadcast mix. This allows you to dedicate one view per output and use them as separate layers within your mixing software (for example, up to four independent layers).

View type:

- **Full Page Results:** shows fully detailed results. It will fill all the output view.
- **Live Splits:** shows split times during a race. It will fill a third of the top left to show real time results to the viewers.
- **Start List:** shows a detailed start list. It will fill all the output view.
- **Single Athlete:** shows a small panel bottom left. It will display the athlete info you chose. It's useful on interval starts to display detailed info about an athlete.

Open Live Output:

- This action opens a new browser tab displaying the currently selected output. This tab represents the live output view. Copy the URL from this tab and use it as a source in your mixing software to add this output as a layer.

Setup Distances:



The 'Distances for Sitting' modal form has three input fields. The first is 'Start to Lower Split Entry (km)' with the value '2'. The second is 'Lower Split to Lap Entry (km)' with the value '0.5'. The third is 'Total distance of the race (km)' with the value '20'.



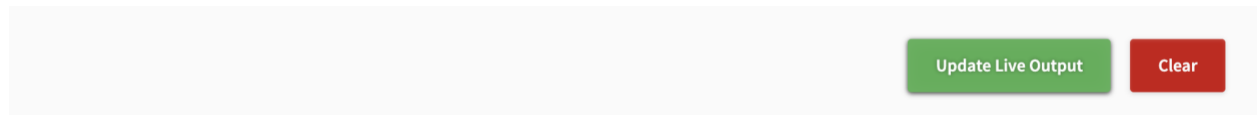
The Live Splits view displays race results for a 'Sitting Male' event. It shows the current lap split and a list of athletes with their times and gaps.

Sitting Male		
Lap #7 Lower Split		14.5 km
1	Derek Zaplotinsk	41:37.5
16	Takaharu Minam	+ 7:46.0
17	Andrii Yevtushen	+ 7:48.4
18	Leo Sammarelli	+ 9:04.7
19	Steve Arnold	+ 9:53.0

- This action opens a modal where you can enter split-to-split distances. Follow the on-screen instructions and enter the distances between each timing point (not cumulative distance), in kilometres (km)—for example, “Start to Lower Split Entry,” then “Lower Split to Lap Entry,” etc. These values are used to calculate and display the correct distances in the Live Splits view based on the crossings currently being shown.

Settings:

- This action opens a **SETTINGS PANEL**



Update Live Output:

- This action pushes the current configuration from the control panel to “Live Output #x.” Any changes will be applied immediately and will update the broadcast feed in real time.

Clear:

- This action removes all configuration applied to “Live Output #x.” As a result, the output view will be completely cleared. The change takes effect immediately and will update the broadcast feed in real time, leaving the output blank.

Full Page Results

Configuration

Result Set

Overall Results

Result Group

Senior Men

Crossings

Finish

Display Times

Delta

Always show recently done group(s)

☐ Yes
☒ No

Racer Fields

Province

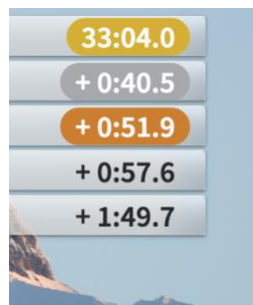
Result Set: This is the list of the result sets you created in the Race config.

Result Group: This is the list of the result group you created in the Race config.

Crossings: This is the generated list of crossings in the race. This list is generated using the course config tab in the Race config on zone4.ca.

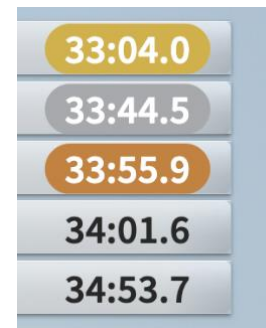
Display times:

☐ Delta:

A vertical stack of six time display boxes. The first box is yellow with '33:04.0'. The second is grey with '+ 0:40.5'. The third is orange with '+ 0:51.9'. The fourth is grey with '+ 0:57.6'. The fifth is grey with '+ 1:49.7'. The sixth is a landscape image.

33:04.0
+ 0:40.5
+ 0:51.9
+ 0:57.6
+ 1:49.7


☐ Elapsed time:

A vertical stack of six time display boxes. The first is yellow with '33:04.0'. The second is grey with '33:44.5'. The third is orange with '33:55.9'. The fourth is grey with '34:01.6'. The fifth is grey with '34:53.7'.

33:04.0
33:44.5
33:55.9
34:01.6
34:53.7

Always show recently done group(s): This option automatically cycles through recently completed Result Groups. If only one Result Group has been completed recently, only that group will be displayed. If no groups have been completed recently, the system will cycle through all completed Result Groups.

Racer Fields: Select the racer fields you would like displayed in the results view. You can drag and drop the fields to arrange them in your preferred order. To display Nation and Province fields [add these fields in the Racer Fields section](#) and configure them in the [Settings Panel](#). You can use the search function to quickly locate a specific field.

Start List

Configuration

Start Group

NS3 Men -revised

▼

Always show next starting group(s)

☐ Yes

☒ No

Racer Fields

Nation × Sport Class ×

× ▼

Start Group: This section displays the list of Result Groups created in the “Start List” tab within the Race Configuration.

Always show next starting group(s): This option cycles through upcoming groups. If multiple groups are scheduled to start at the same time, it will rotate between them. If only one group is scheduled, it will display that group. As time progresses, the system will automatically advance to the next scheduled group or batch of groups.

Racer Fields: Select the racer fields you would like displayed in the results view. You can drag and drop the fields to arrange them in your preferred order. To display Nation and Province fields [add these fields in the Racer Fields section](#) and configure them in the [Settings Panel](#). You can use the search function to quickly locate a specific field.

Single Athlete

Configuration

Bib Number

1: Kapustin Vladislav | v

Header Info

First Name x Last Name x Province x | x v

Meta Info

Enter info

Racer Fields

Birth Year x Gender x Club or Team Name x | x v

Vladislav Kapustin 

Birth Year:

2000

Gender:

M

Club or Team Name:

National Guard Biathlon

Bib Number: Select a bib number by searching for the athlete using their bib number, first name, or last name.

Header info: Information displayed in the first row (header) of the athlete card. You can drag and drop the fields to arrange them in your preferred order. To display Nation and Province fields [add these fields in the Racer Fields section](#) and configure them in the [Settings Panel](#). You can use the search function to quickly locate a specific field.

Racer Fields: shows a list of the fields selected. You can drag and drop the fields to arrange them in your preferred order. To display Nation and Province fields [add these fields in the Racer Fields section](#) and configure them in the [Settings Panel](#). You can use the search function to quickly locate a specific field.

Live Splits

Configuration

Result Set

Overall Results

Result Group

Senior Men

Crossings

Finish

Watching Bib

Enter bib number

Number of Racer to Show

Enter a number of racers

Auto Scroll Down

☐ Yes☒ No

Bib Display Options

☐ None☐ Bib icon☒ Bib background color

Always show group(s) in progress

☐ Yes☒ No

Auto Follow Leader

☐ Yes☒ No

Result Set: This is the list of the result sets you created in the Race config.

Result Group: This is the list of the result group you created in the Race config.

Crossings: This is the generated list of crossings in the race. This list is generated using the course config tab in the Race config on zone4.ca

Watching Bib: Selecting a bib number enables “follow mode” for that athlete. The system will display the athlete’s real-time time difference compared to the current leader. Once the athlete records a finish time, the displayed time difference will freeze at the final result. Entering an invalid bib number will have no effect on the view. This feature is particularly useful for interval or individual start formats, as it builds excitement by showing whether the approaching athlete is on pace to become the new leader. Example: Following bib 10

Youth Men					
Lap #1 Enter Range					
1	OLMSTEAD Max	0			6:22.0
3	MACNEILL Matt	1			+ 0:41.9
4	SEPTON Liam	0			+ 0:48.6
5	WENDT Fidel	2			+ 1:18.7
6	SULIS Alex	1			+ 2:12.9

Number of Racer to Show: By default, this view displays 5 racers. You can adjust this setting to display more racers, depending on your broadcast layout and production needs.

Auto Scroll Down: Enable this option to automatically display the most recent finishers. This is especially useful in mass start formats, as it ensures that newly recorded results appear immediately on screen. This setting has no effect if a valid “watching” bib is entered, as the system will prioritize the selected athlete instead. In most cases, this option should remain enabled to keep the broadcast focused on the latest finishers. It should only be disabled when you want to display a fixed ranking, such as a Top 5 view, particularly when many results are being recorded in quick succession.



Youth Men				
Lap #1 Enter Range				
1	OLMSTEAD Max	0		6:22.0
4	SEPTON Liam	0		+ 0:48.6
5	WENDT Fidel	2		+ 1:18.7
6	SULIS Alex	1		+ 2:12.9
7	LAVERGNE Coli	1		+ 2:41.4

Bib Display Options: different styles to display the bib number

○ Bib Icon:



○ Bib background color:



Always show group(s) in progress: This option cycles through the result groups that are currently racing. It is primarily useful when multiple groups are on course at the same time, as it ensures that results for each active group are displayed. If no groups are actively racing, the system will not cycle, and the display will remain unchanged. As new groups begin racing, the view will automatically switch to the relevant active group(s). This feature

reduces the need to manually select a new result group at each start and push the update to the live output.

Auto Follow Leader: This option automatically advances the display to the next timing crossing whenever a new time is recorded, allowing the broadcast to continuously follow the leader's progression. It is particularly useful in mass start formats, where multiple athletes are crossing timing points in quick succession and maintaining focus on the leader enhances the flow and excitement of the coverage.

- If You click yes, a new option appears:

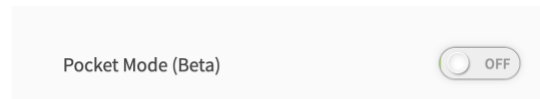
Auto Follow Leader ☒ Yes ☐ No	Minimum Racers to Follow Enter a number of racers
---	--

- This option prevents the system from automatically switching to the next timing crossing when only a single time has been recorded. It is especially useful in mass start races where the leading athlete may be significantly ahead, the course is long, or the field is widely spread out, and you want to avoid displaying only one isolated result. By setting a minimum number of recorded times (for example, 5), the system will wait until that threshold is reached at the next crossing before switching the display. This allows you to show a more meaningful group of results, such as a Top 5, rather than a single athlete's split.

Settings Panel

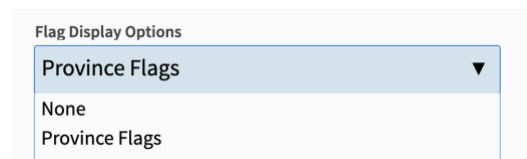
The Settings Panel is saved independently for each output. This means every output can have its own configuration, allowing you to apply different layouts, fields, or display behaviors depending on the specific feed you are producing.

Pocket Mode (Beta)



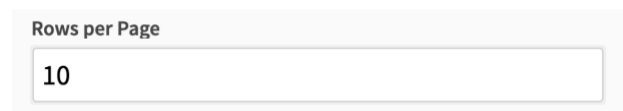
- This option activates all automated broadcast features simultaneously. It is still under development and has not been fully tested, so performance may not be consistent in all scenarios. Use caution when enabling this feature during live production.

Flag Display Options



- Choose what type of flag you want to show.
 - NOC/FIS/UCI Country Flags: shows flags for FIS/UCI race
 - Country Flags: show regular country flags
 - Province Flags: shows province flags, but will fall back to Country Flags if there is not province for an athlete, but there is a country.
- If only “None” appears in the display, even though you know that country or province data exists, ensure that the Nation and Province fields have been added in the Racer Fields configuration. These fields must be explicitly included for the corresponding information to appear in the broadcast view [BELOW](#).

Rows per Page



- Use this option to select the number of rows displayed per page in the Full Page Results and Start List views. Adjusting this setting allows you to control how many

athletes appear on screen at once, depending on your layout and readability requirements.

Cycle Time (seconds)

Cycle Time (seconds)

- Use this option to set the delay, in seconds, before automatically switching to the next page in the Full Page Results and Start List views. This controls how long each page remains on screen before advancing to the next set of rows.

Racer # colours

Racer # Background

Racer # Font

- Colours of the “Bib background color” option in the Live Splits view.

Banners

Banners

Full header URL

Small header URL

Full footer URL



- Zone4 can provide custom banners for use in the results display. To include a banner in your broadcast, enter the link provided by Zone4 in the designated field, and the banner will be added to the output view.

I want to show more racer fields

To have access to more racer fields, you need to make them public:

1. Go to race settings on [zone4.ca/manage/race/\(your race UUID\)/settings](https://zone4.ca/manage/race/(your race UUID)/settings)
2. Click on the “Standard Racer Fields” button:

Other Settings



Event Page



Team Relay Options



Standard Racer Fields



Authorized Users

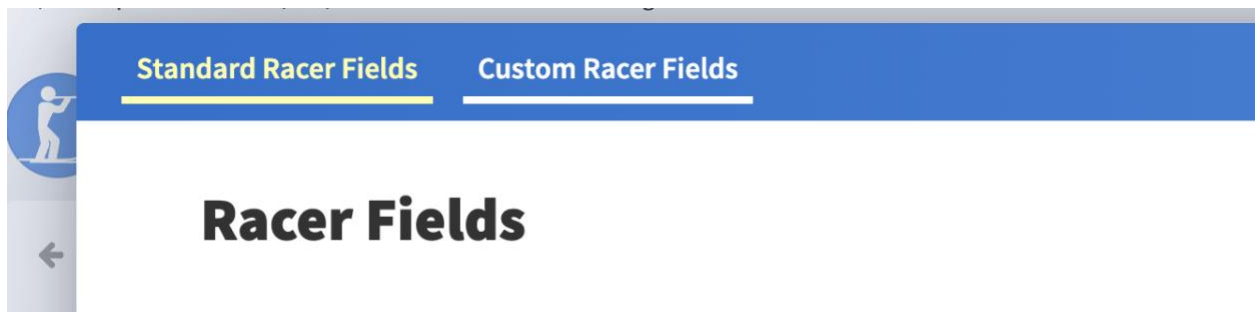


Advanced Settings



Archive this Race

3. Click on the “Custom Racer Fields” tab: x



4. Click on the “Edit” button on the right according to the field you want to make public
5. Scroll down and check the “Contains Public Data” option



Contains Public Data

This will be checked automatically if the field is added to any public reports or result sets.

To make a field public, you can also add it to one of the result sets

1. Go to race settings on [zone4.ca/manage/race/\(your race UUID\)/resultsets](https://zone4.ca/manage/race/(your race UUID)/resultsets)
2. Click on configure for one on the result set
3. Add the field by

Before making country and province fields public, convert them to standardized selectable options and normalize existing values. Users occasionally enter custom or invalid country and province names, so these fields should be cleaned and standardized to ensure consistency and accuracy. In this example I needed to rename United States of America to United States.

Display Name	Country	
Data Type	Option ▼	
Options	0001 CAN ✕	
	0002 Canada ✕	
	0003 Chile ✕	
	0004 México ✕	
	0005 New Zealand ✕	
	0006 USA ✕	
	0007 United States ✕	
	0008 United States Of America ✕	
	0009 United states ✕	
	0010	