

## Corral Wave Starts

### Getting Started Guide

Corral Waves is a method of assigning wave times that has a limited use, but the feature is very powerful if your race scenario calls for it. When you use this technique, you will be making use of a start line reader, but the intention is to use these reads to establish a participants *wave* time - not their *start* time. When using this feature, *start* times are not captured - and it makes no difference if you have the race configured for scoring by chip time or gun time. For example, in a standard scenario when a participants wave begins 15 minutes after the original gun time and a participant crosses the start mat 16 minutes after the original gun, they have a 15 minute wave time and a 1 minute start time. On the finish reports, this participant will have a 1 minute differential between their gun time and chip time. With the corral wave approach, each participant will have a wave time only.

Corral wave starts can be used in scenarios where you have either a *structured* or *no* prior organization to how waves will go off. In events where you have a structured organization to how waves will be defined, you must use *Wave Group* codes and define them in the standard way by configuring your event to establish waves by Division, Age Group or Participant (bib number range). The most common scenarios would be a swim start for a multi sport event, the start of a trail run or the start of a mud run. The example below is based on a swim start for a triathlon where pre-determined waves were planned by age group. See the end of this document for details on Division, Participant or no pre determined waves.

#### General Concept

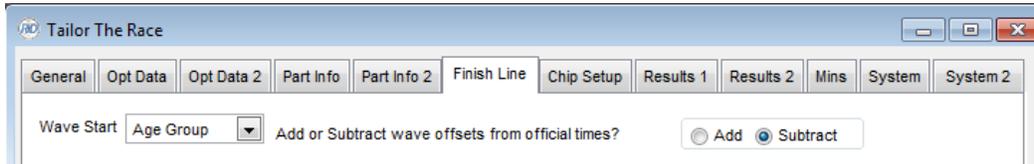
For this race, the decision was to create 14 waves roughly between the times of 6:45 AM and 7:30 AM. The composition of each wave was various age group combinations across all divisions. As is required for this process, a wave group code between 1 and 14 was assigned to each age group. Some waves were a combination of several age groups, some were a single age group and the Men's 40-44 age group used the Race Director feature to assign one of 2 waves based on the first letter of the participants last name.

Participants in each start wave walk across the start mat a few minutes before the actual start of their wave. The chip read that is captured does not represent their actual wave time, it only is used to define which corral time span they are in. All of the participants in the corral enter the water and get ready for their start. The wave starts at the exact time as defined by the upper time in the corral time span and everyone that is in this "corral group" is assigned the upper time in the time span as their wave time. The process repeats until all waves have started. In the case where the wave does not begin exactly at the time planned, the actual time is noted so that an update can be made.

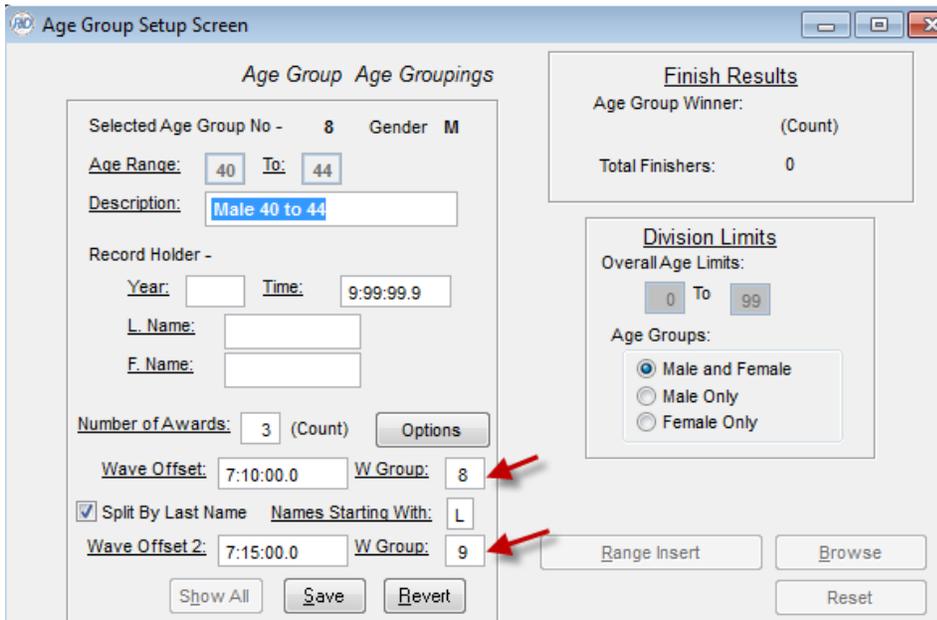
**Note:** When using this approach, the race must be scored with a zero gun time. All start line, split read and finish reads will be adjusted by the participant's wave time - which is always expressed as the "time of day" the participant's wave began.

## Corral Wave Start Example

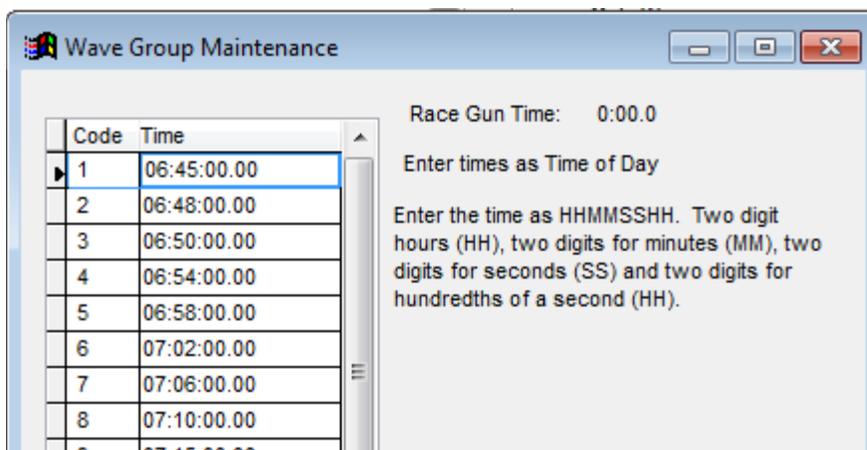
Prior to the start of the race, we establish that wave times are established by Age Group.



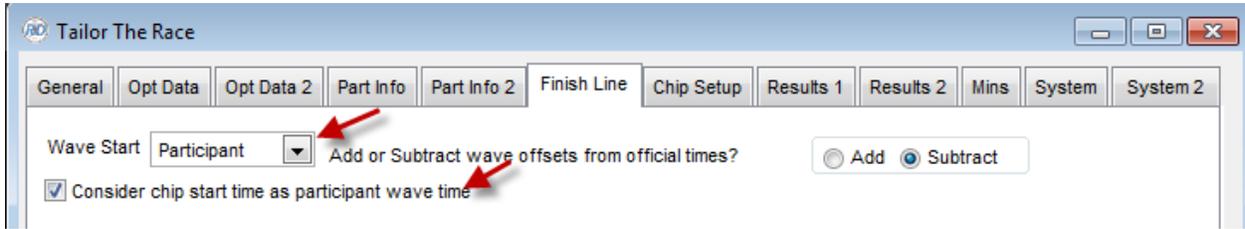
Here is an example of the wave group assignment in the most complicated age group - where there were 2 wave groups assigned - determined by the participants last name.



The "Set Wave Times" button in Tailor -> Divisions can be used to establish the planned start time of each wave.

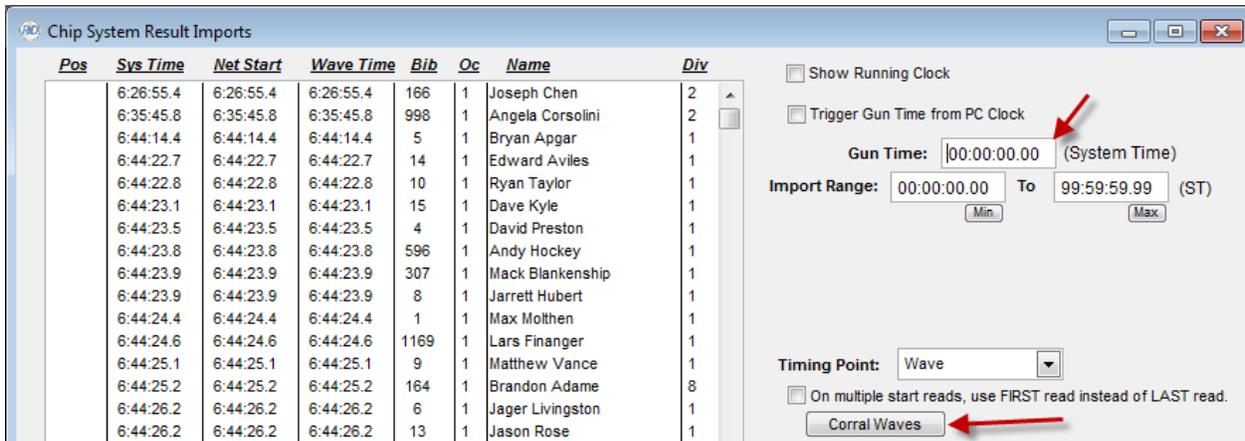


Once all participant data is loaded and every participant is in a age group that has a wave group code assigned, you return to Tailor -> Options and use this selection for the Wave times. You must use the setting "Consider chip start time as participant wave time".

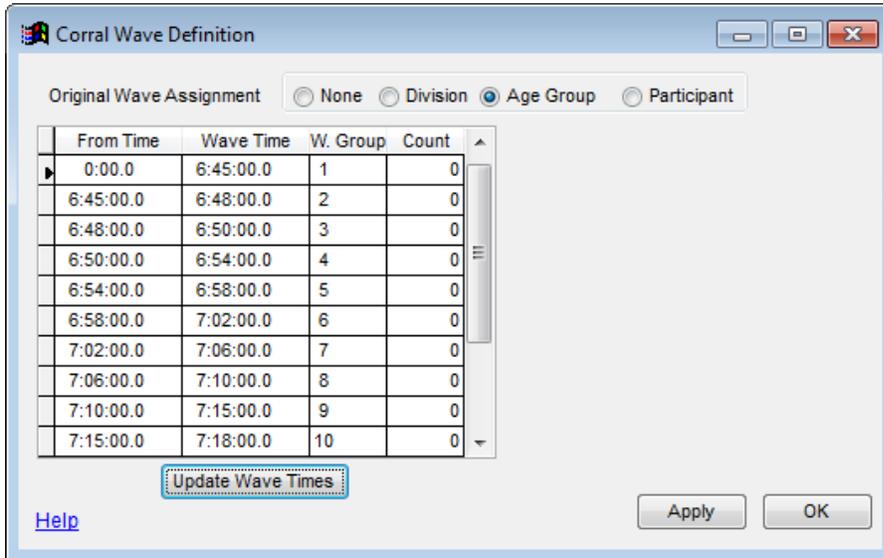


During the execution of the start, it is important that you make a note of the exact start time of each wave.

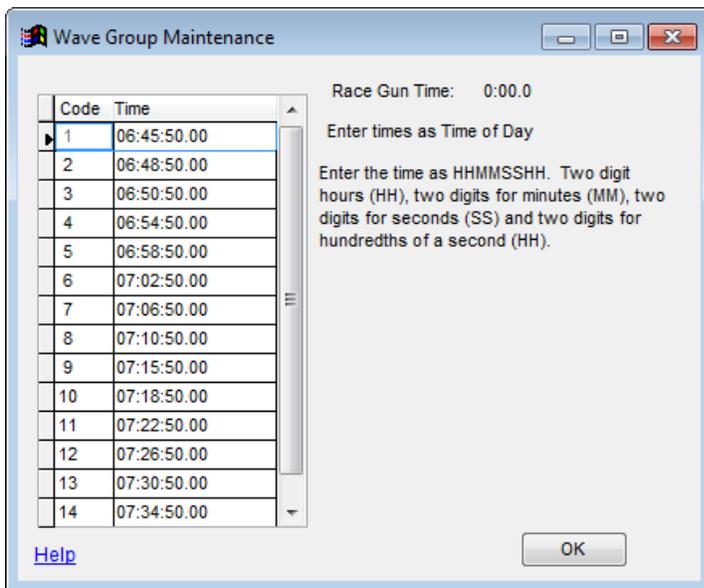
When you use the Chip Result import and select "Wave" as the Timing Point, you'll see a new button for calculating the waves based on the corral time. Be sure the gun time is set to zero prior to importing the corral entry reads.



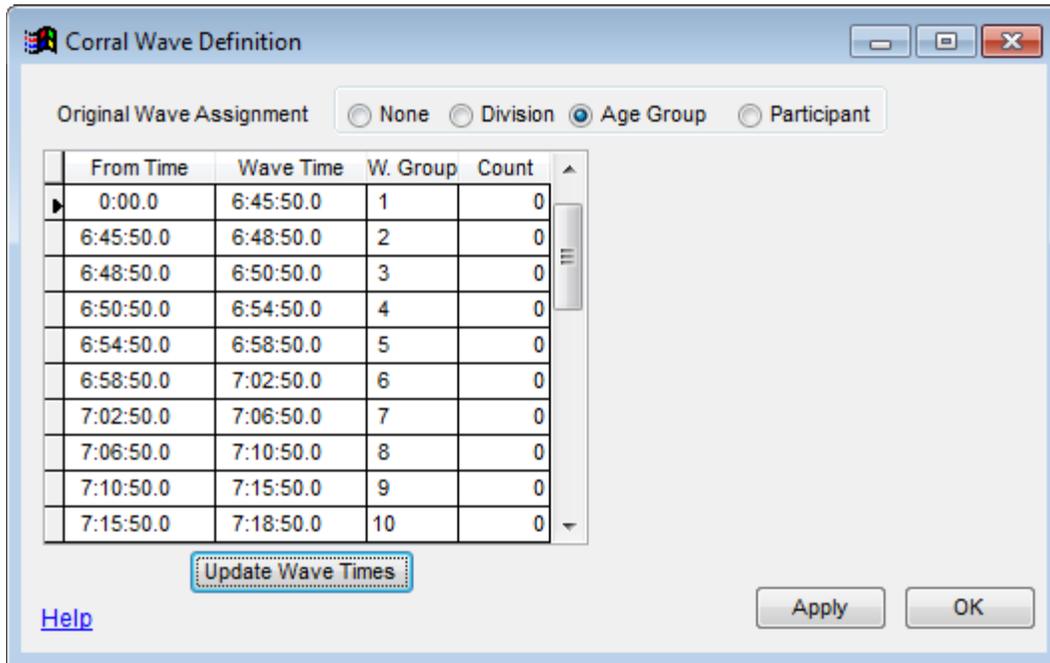
When you first enter this screen and select the Original Wave Assignment method, you'll be prompted about building the wave corral times based on your wave groups. In the case of this event, the following corral wave time spans were created.



For this race, none of the wave began exactly at the pre-determined time. The "Update Wave Times" button is used to enter the actual wave times.

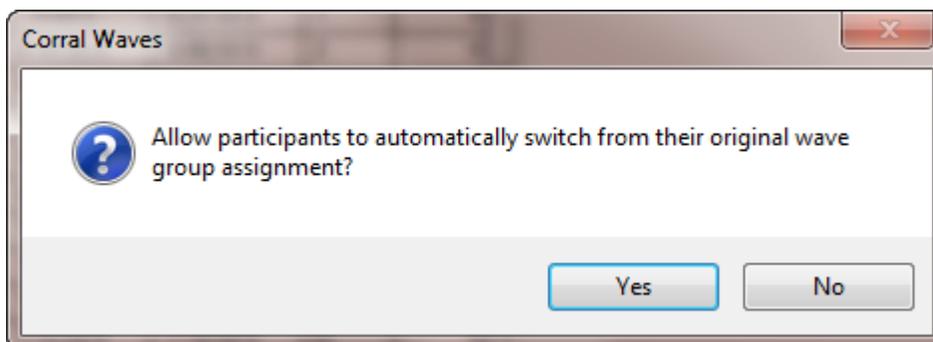


When we return to the corral setup screen, we see that ranges have been reset to match the updated times.

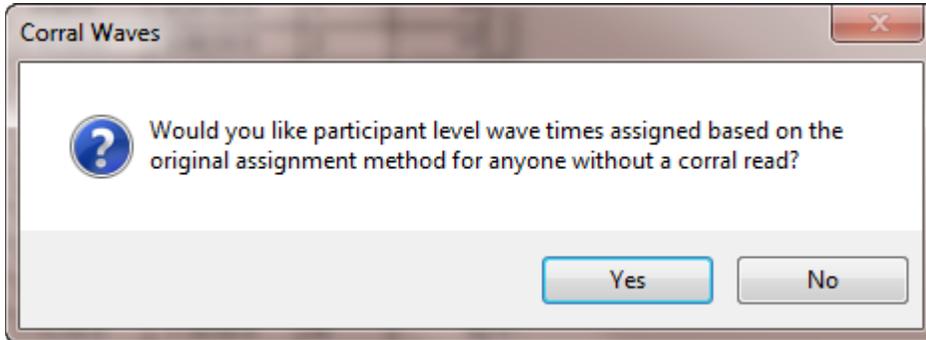


The "Apply" button is now used to process through all of the start line reads and put assign a wave code to everyone based on which time range their start time fits into. As this occurs, there are several important prompts.

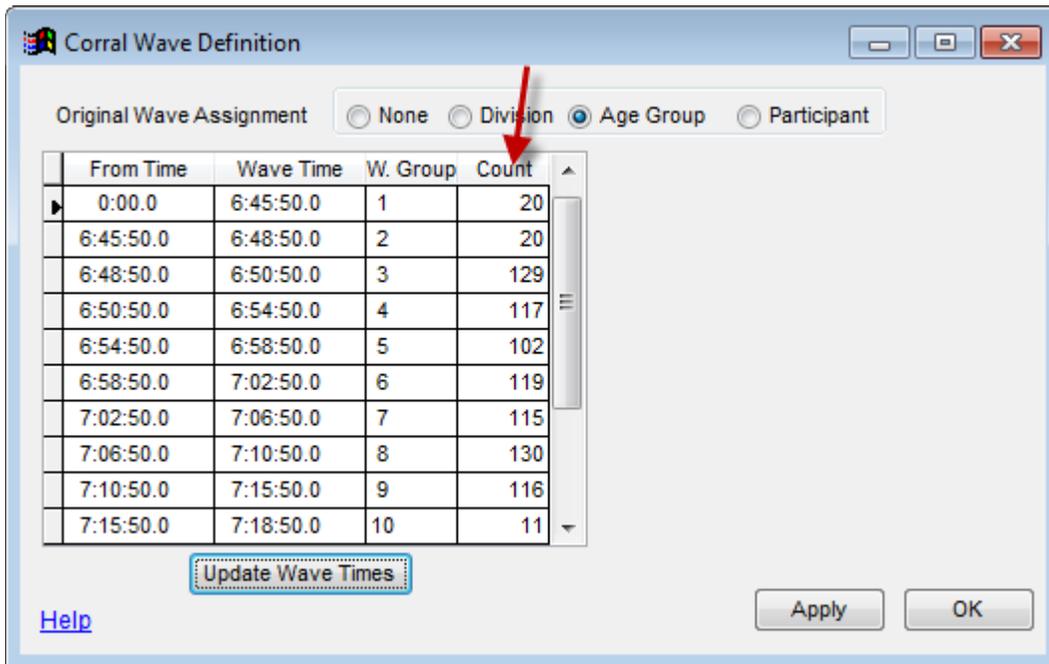
The first prompt is important for how you want someone who is determined to be in a corral range associated with a different wave group code than the one they were registered in. Either way you answer this prompt, everyone who falls into this category will be identified as an exception on the report generated for showing the details of the wave assignments. Answering "Yes" is the most practical option. If you answer "Yes", you can review all of the exceptions and on a case by case basis decide whether to do nothing, put the participant back in their original wave (see below), DQ or assign a penalty.



After the wave assignments are made, you're presented with the prompt below. This determines what is done for anyone who entered a corral, but their chip read was missed. Only answer "Yes" when you know all start line data has been read.



The counts are updated on the Corral Wave Definition screen showing how many participants started in each time span.



Once we return to the chip results import screen, we see that the System Time is unchanged, but the Net Start time is the resulting wave offset time.

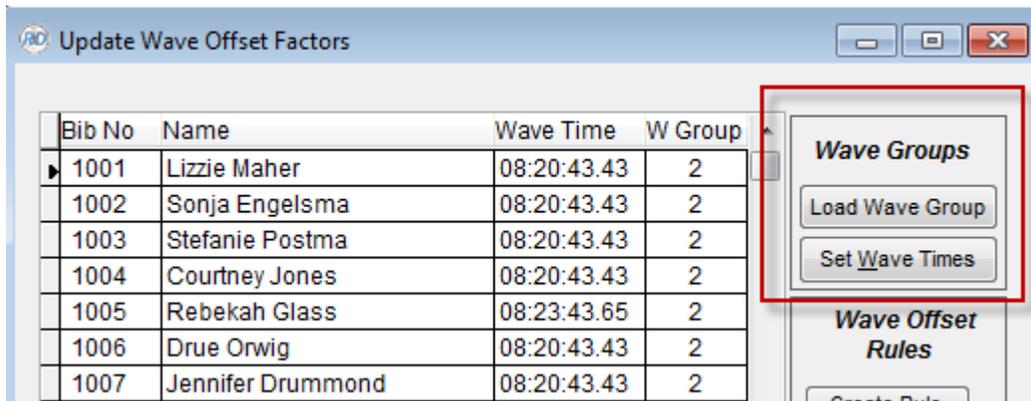
Pos	Sys Time	Net Start	Wave Time	Bib	Qc	Name	Div
	6:44:24.4	6:45:50.0	6:45:50.0	1	1	Max Molthen	1
	6:44:24.6	6:45:50.0	6:45:50.0	1169	1	Lars Finanger	1
	6:44:25.1	6:45:50.0	6:45:50.0	9	1	Matthew Vance	1
	6:44:25.2	6:45:50.0	6:45:50.0	164	1	Brandon Adame	8
	6:44:26.2	6:45:50.0	6:45:50.0	6	1	Jager Livingston	1
	6:44:26.2	6:45:50.0	6:45:50.0	13	1	Jason Rose	1
	6:44:26.4	6:45:50.0	6:45:50.0	12	1	Cort Prois	1
	6:45:50.0	6:45:50.0	6:45:50.0	11	1	Jussi Thomas	1
	6:45:50.0	6:45:50.0	6:45:50.0	290	1	Mike Saroni	1
	6:45:50.0	6:45:50.0	6:45:50.0	1164	1	Jussi Thomas	1
	6:46:07.0	6:48:50.0	6:48:50.0	16	1	Lauren Germain	1
	6:46:07.1	6:48:50.0	6:48:50.0	1238	1	Susie Coe	6
	6:46:09.0	6:48:50.0	6:48:50.0	1168	1	Emily Finanger	1
	6:46:09.3	6:48:50.0	6:48:50.0	18	1	Valerie Snider	1

In the case where someone has not received the proper wave time, use the "Wave" button in the task bar in Update -> Participants. From that screen, find the participant in the grid and change the wave time directly there.

## Other Considerations

**Original Wave Times by Division.** The approach you take prior to the race should be no different than what was shown in the example above except for specifying "Division" as the wave offset method and entering the Wave Group codes on the Tailor -> Divisions screen. Be sure that a Wave Group code is assigned to each division.

**Original Wave Times by Participant.** Be sure to use the Wave Groups buttons on the Participant level Wave maintenance screen prior to the execution of the race. You can find this function by using the "Wave" button in the upper task bar found in Update -> Participants. Be sure that every participant has an assigned wave group code. It is a good idea to re-load and set the wave groups using the buttons on this screen after the last participant has been entered into the race and before you do your first start line data import. **Important** - when you first go into the Chip Results Import screen, you will see all of the pre-defined wave groups showing. Be sure to use the "Clear" button to get rid of these times - they will be replaced with the wave times that come from the Corral Wave process.



**No Original Wave Times.** If there is no pre-defined wave assignments, you will use the setting below when you use the "Corral Times" button on the Chip Results Import screen. When using this option, it is up to you to define the Corral Time Spans using the "Add" and "Delete" buttons. The rest of the processing is similar to what was shown in the example above - other than there is no activity related to participants in wave that were not pre-assigned.

