



# ARES 21 Electronic Timing Clinic Users Guide

Saanich Commonwealth Pool

April 2017

## Overview of the clinic

This clinic will provide the basics to understanding and using the electronic timing equipment located at the Saanich Commonwealth Pool. By the end of the clinic you will have a basic understanding of the following:

1. How to turn on and setup up the timing equipment
2. How to plug in touch pads and plungers on pool deck
3. How to setup the starter box
4. How to test touch pads, plungers and starter box
5. How to set up event and heat files
6. How to setup and test the pool configurations
7. How to run the timing laptops during a meet
8. How to ready scoreboard for meet

\*\*\*Pool facilities personal will setup up and take down the touch pads, plungers and block speakers as well as move blocks to bulkhead if necessary \*\*\*

\*\*\*Pool staff will install the lane ropes, false start rope and backstroke flags\*\*\*

## ***Setting up for a meet***

### **1) Turn on and setup up the timing equipment**

The pool configuration (Long Course or Short Course meet) is controlled by switches found in the auxiliary timing booth (East end).

#### **A) Short course (25M)**

- a. If it is a Short Course meet (25m) set both switches down.

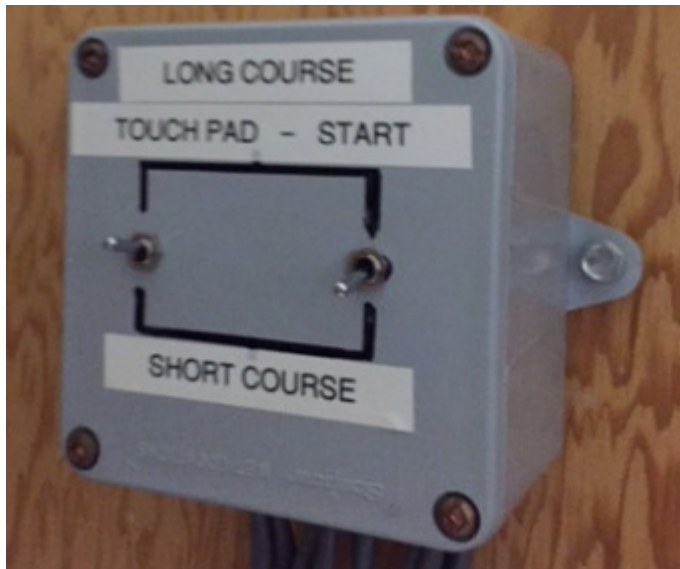
#### **B) Long Course running 50m events from East end of pool**

- a. Set both switches up.

#### **C) Long Course running 50m events from West end of pool**

- a. Set **Touch Pad** switch up and **Start** switch down

With this configuration you can start your 50m events from the West blocks (Some ARES software changes will be necessary). Swimmers will then always start their races from the West end but the timers will have to move to the East end during 50m races.



- It is possible to split the pool in two via the bulkhead. By doing this you can run two short course meets at the same time.
- Also, it is possible to run a long course (50m) 'chase' start meet using both timing booths at each end of the pool.

## Turning on Equipment

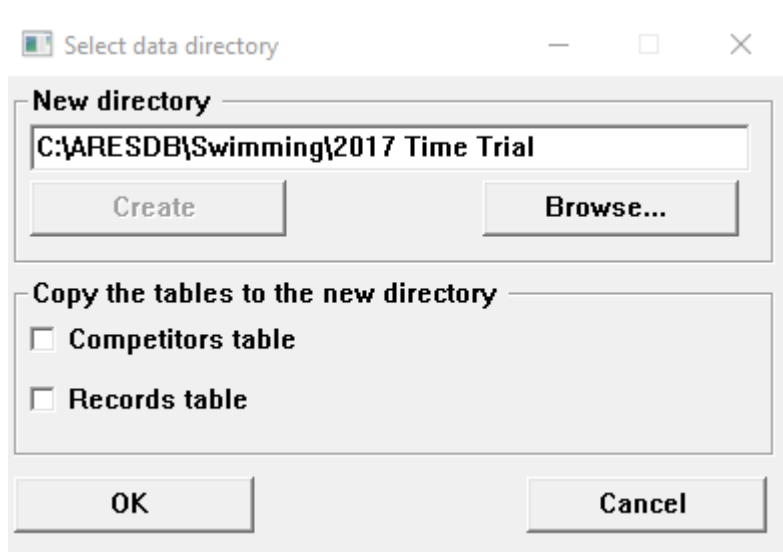
- In the main timing booth (West end) turn on the Primary and Backup IF-ARES. The switches are located on the back left of each controller.
- Turn on both Primary and Backup ARES laptops. There are no passwords to login.



- Next, on each laptop create a database folder to hold the meet session(s). The folder should be called something that describes the meet. For example '2017 Time Trial'. The folder should be located at C:\ARESDB\Swimming\ (name of meet). If the meet has multiple sessions each session should be in its separate folder named accordingly in the main meet folder. This will help maximize the program response times.



- Select the correct folder depending on what session you are running.

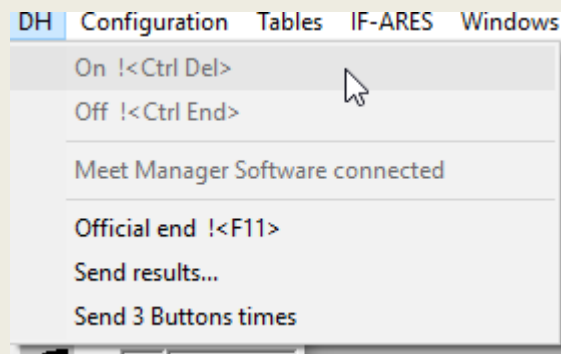


- Next, test communications with ARES. Connect the ARES USB cable to the Hytek (Meet Manager) laptop. Open Meet Manager. Check correct COM port selected by going to Run>Interfaces>Timer (ARES) Pool 1 > Open /Close Serial Port for ARES. In the Serial COM port for Pool1 select the correct port number. Next, test communications by going to Run>Interfaces>Timer (ARES) Pool 1> Test communications with ARES. You should receive a communications success message.

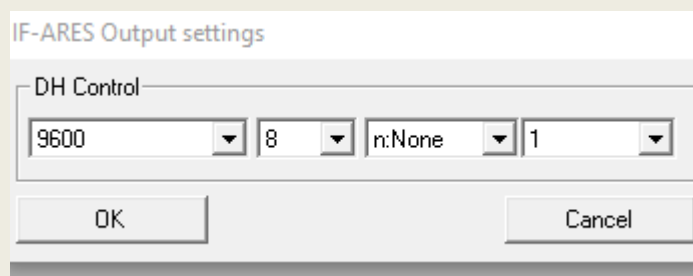
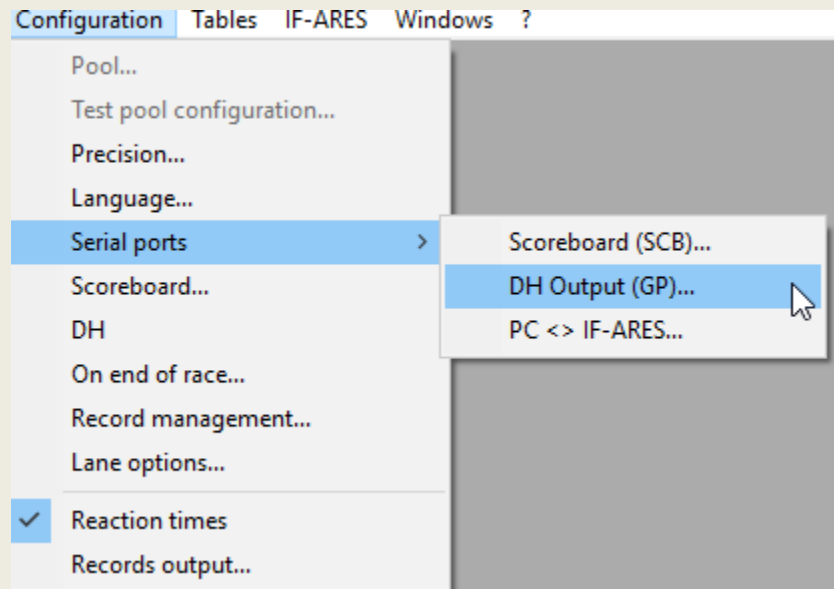
**Troubleshooting:**

- If you don't get a successful communications message check for the correct COM port on the PC 'Device Manager' and try again.
- Check that the protocol converter is plugged in

- Make sure that Data Handling is turned on



- Check the configuration of the Data Handling port



- ARES cannot accept events from Hytek that have alphabetic characters in them. If you have events set up as 1A, 1B etc... these cannot be sent to the ARES computers.
- Blank heats in the start or middle of an event will prevent the ARES from pulling any names across after the blank event. A blank event is always considered to be

the end of the event list in ARES.

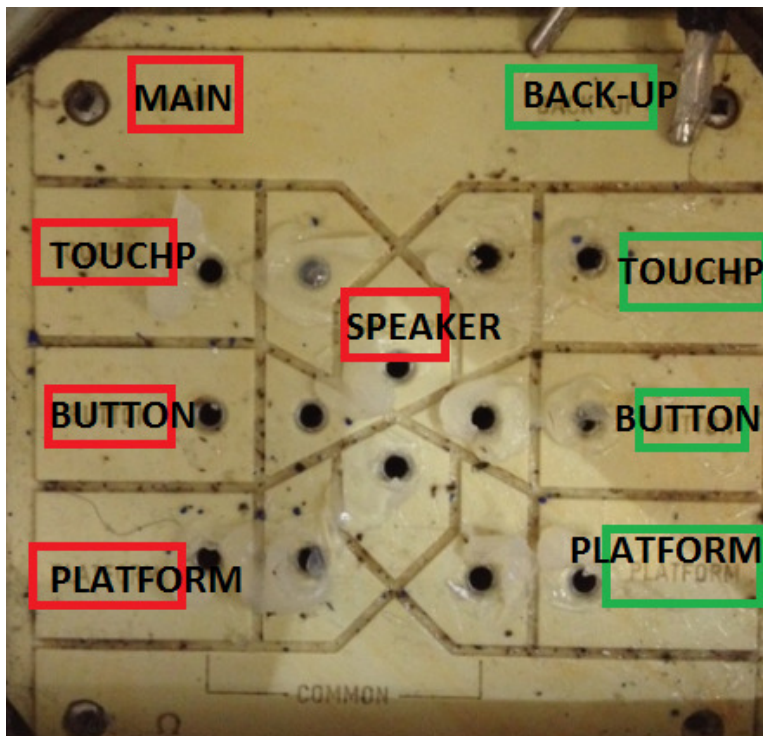
## ***Testing the Equipment***

### **2) Plugging in Pads and Plungers**

Contacts on pool deck (found inside blocks)

- Main-TouchP=Touchpad connection
- Main-Button=Plunger (generally not used)
- Main-Platform=Diving Block reaction
- Backup-TouchP=Button 1
- Backup-Button=Button 2
- Backup-Platform= Button
- Speaker= Block Speaker

\*\*pool staff will have all connections plugged in as part of the set up but an understanding of where things plug in are necessary in incase something fails or needs switching during the meet\*



### 3) Set up the Starter Box

- Remove charging cable from the Starter Box (Starters are kept in main timing booth)
- Take Starter and secure to backstroke pole
- Attach Speaker and Timing cable from bulkhead to Starter
- Check deck cabling attached to pool deck

### 4) Create a Test Event to test pads, plungers and starter box

- To help with configuring the starter, pad and other actions create a test event on both ARES computers. In the Timetable window double click the +++ at the bottom of the competition window (This will open a new window which you could also use to create a new event in the middle of the session). Assign the Event number 999 so it can be easily found at the bottom of the session. Set the event type to 'Tests'. Finally, set the distance, stroke and gender as you require and save the event.

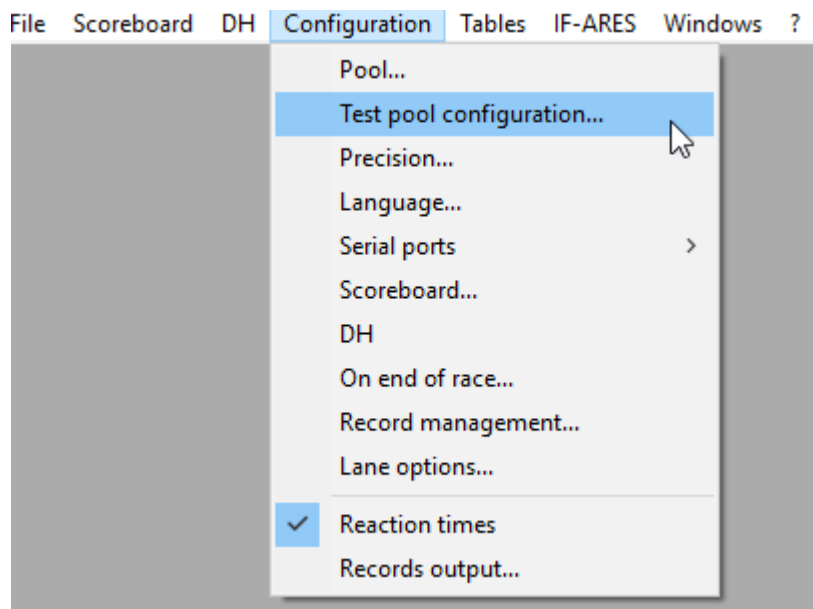
The screenshot shows a 'Competition' window with the following fields and values:

- Event Nb: 999
- Event Type: Tests
- Date: 04/02/17
- Start time: 00:00
- Race: 100 m, Freestyle, Men
- Title for Print: Primary
- Title for Scoreboard: (empty)
- Judge name for print: (empty)

Buttons: OK, Cancel



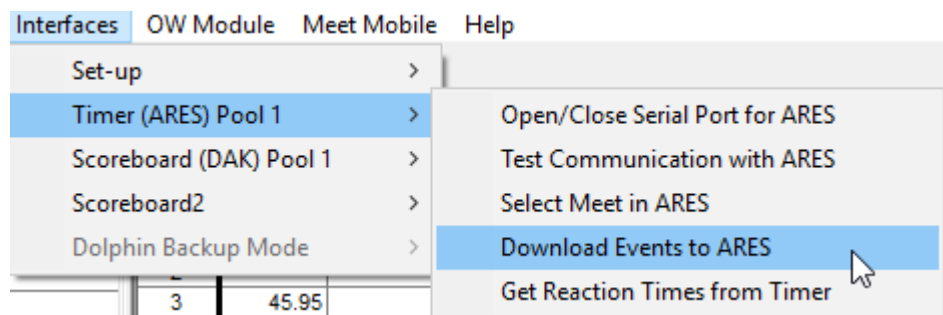
To test the pads and platform reaction times open '**Test pool configuration**' on the main primary laptop



- In the test window a reaction from the pad will appear each time the pad is hit. A platform reaction will appear each time a dive block platform is tested. Go through each pad and block to make sure each is working.
- Repeat this sequence on the Backup laptop to test plungers.

## 5) How to set up event and heat files

- Once you have successful communication between ARES and the Hytek (Meet Manager) PC you are ready to download the session events and heats (start list) to the ARES laptop (only download the events for the upcoming session). From the Hytek laptop open Meet Manager>Run>interfaces> Timer (ARES) Pool 1>Download Events to ARES. You will receive a message asking if you were successful. Click OK.

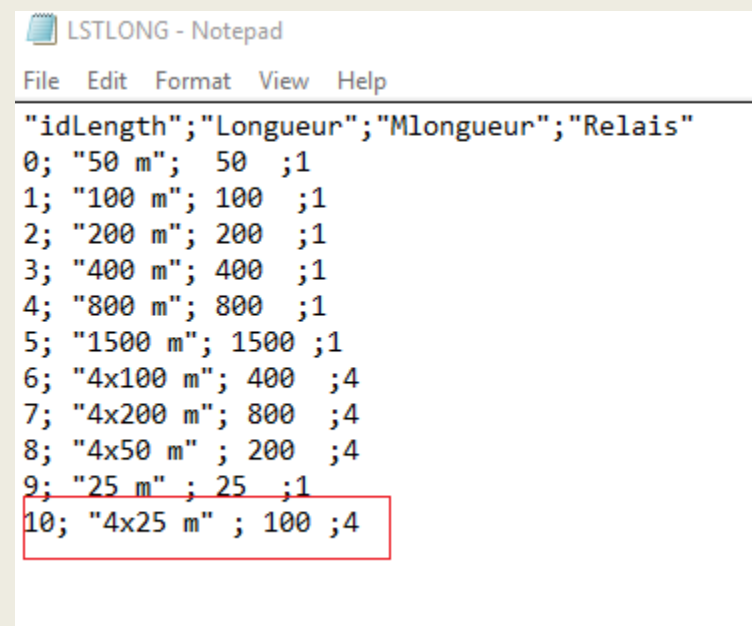


- After the events have been sent to ARES a new window will pop up asking you to accept the download. If there are no errors you can accept. Sometimes there will be an error in the popup window if there are non-standard events ARES doesn't recognize. For example, a non-standard event could be a 4 x 25m relay.

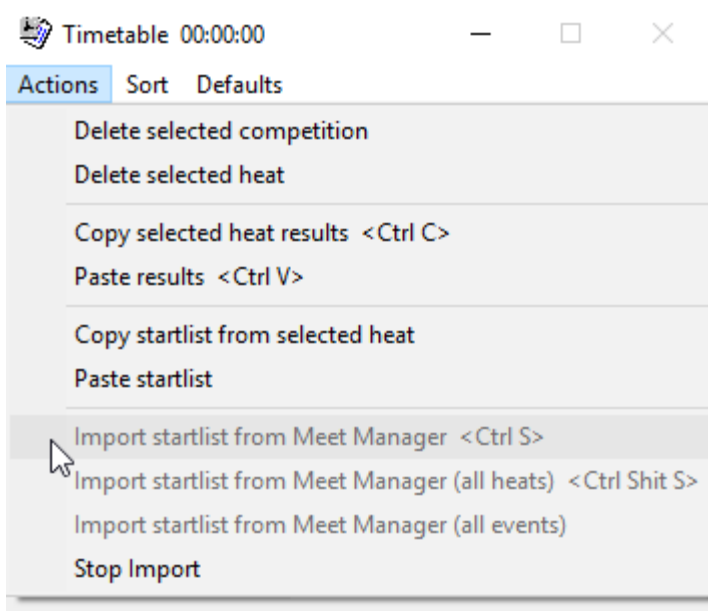
### Troubleshooting:

#### Adding Non-standard events to ARES

- Exit Areas
- Edit the file LSTLONG.TXT in the directory selected for the swim meet

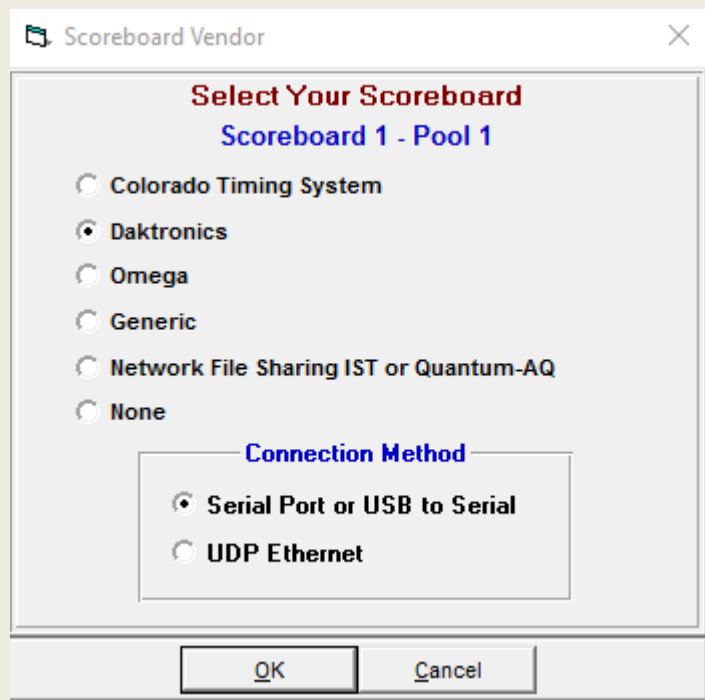


- On the Primary ARES you will need to download the Start List from Hytek (Meet Manager) to fill the events with heats. Go to the Timetable window select the Actions>Import startlist from Meet Manager. The Start List will fill each event heat by heat.



#### Troubleshooting:

- If the Start List does not download return to the Meet Manager program and make sure that the ScoreBoard1 is set to Daktronics.
  - Go to: Run>Interfaces>Setup> Scoreboard Pool1> Choose Daktronics



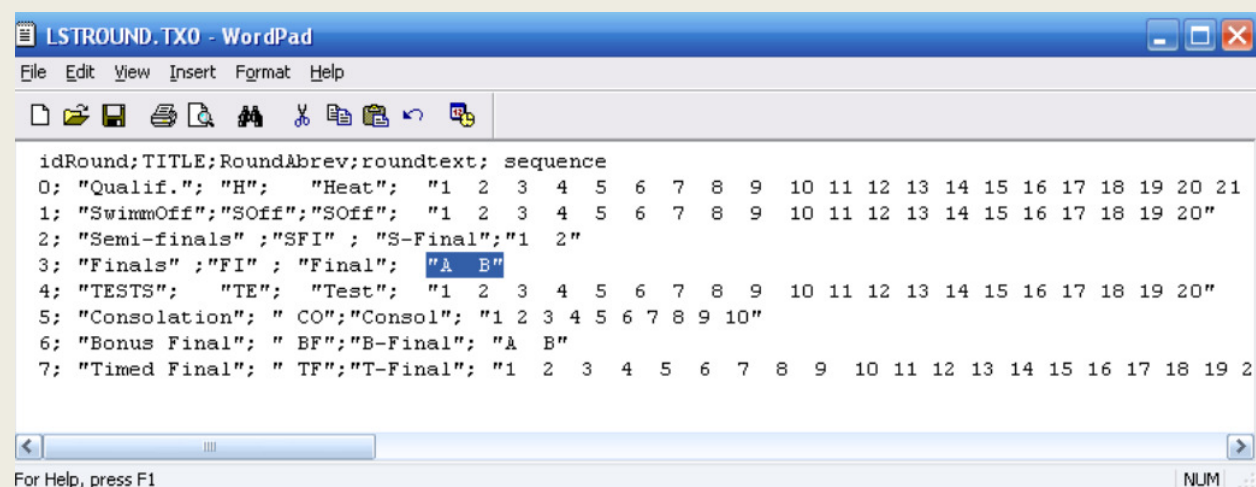
- Check that the Hytek computer has not closed its run window

- Check for a blank heat in the middle of the event

## Troubleshooting:

### Missing heats after download?

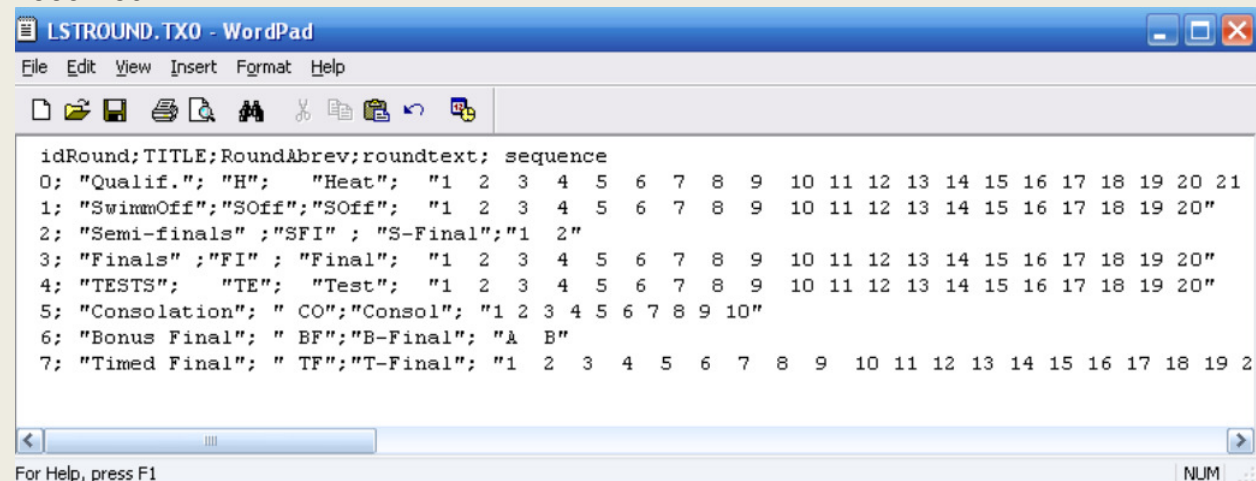
- If heats are missing you will need to edit the LSTROUND.txt file (C:\ARES\Swimming\ (Meet Name) \ (Session Name) \LSTROUND.txt). Within this file add entries to cover the correct number of heats. From within the ARES software, go to the Tables/Round Table menu and select refresh.



A screenshot of a WordPad window titled "LSTROUND.TXT - WordPad". The window shows a text file with the following content:

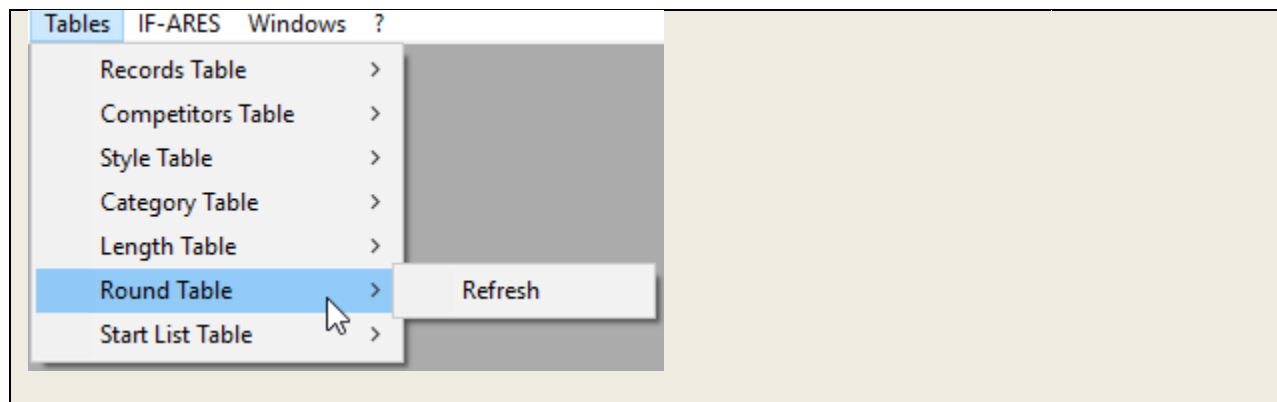
```
idRound;TITLE;RoundAbrev;roundtext; sequence
0; "Qualif."; "H"; "Heat"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21"
1; "SwimOff"; "SOff"; "SOff"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20"
2; "Semi-finals"; "SFI"; "S-Final"; "1 2"
3; "Finals"; "FI"; "Final"; "A B"
4; "TESTS"; "TE"; "Test"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20"
5; "Consolation"; "CO"; "Consol"; "1 2 3 4 5 6 7 8 9 10"
6; "Bonus Final"; "BF"; "B-Final"; "A B"
7; "Timed Final"; "TF"; "T-Final"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20"
```

### Becomes:



A screenshot of a WordPad window titled "LSTROUND.TXT - WordPad", showing the same text file as above, but with the following modifications:

```
idRound;TITLE;RoundAbrev;roundtext; sequence
0; "Qualif."; "H"; "Heat"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21"
1; "SwimOff"; "SOff"; "SOff"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20"
2; "Semi-finals"; "SFI"; "S-Final"; "1 2"
3; "Finals"; "FI"; "Final"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20"
4; "TESTS"; "TE"; "Test"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20"
5; "Consolation"; "CO"; "Consol"; "1 2 3 4 5 6 7 8 9 10"
6; "Bonus Final"; "BF"; "B-Final"; "A B"
7; "Timed Final"; "TF"; "T-Final"; "1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20"
```



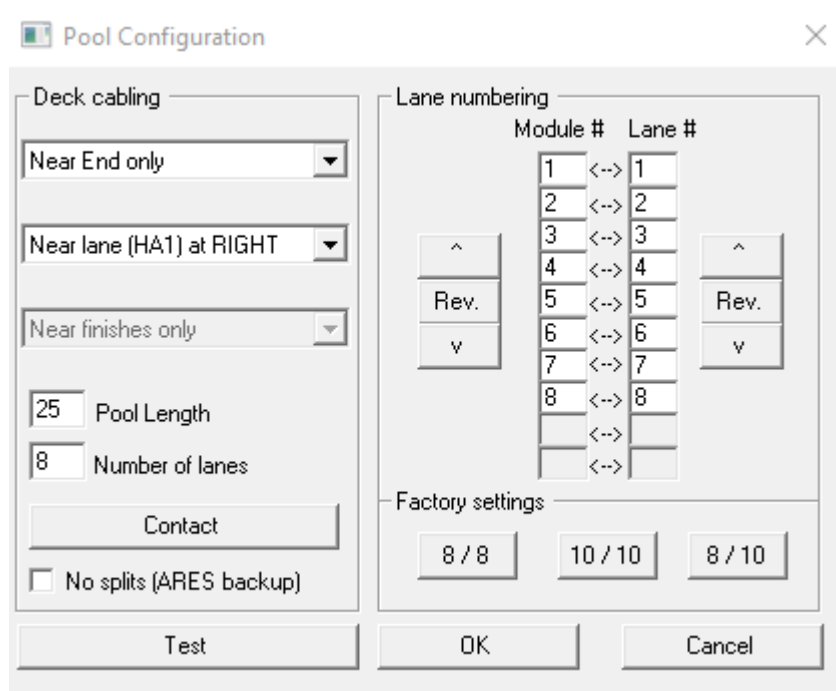
- Once the events and heats have been downloaded to the primary computer you will need to copy all files (except the config file) from the primary session folder to identical session folder on the backup PC. This will give the primary and the backup identical events, heats and swimmers.

## 6) How to setup and test the pool configurations

Set the pool to the correct cabling depending on long or short course meet

### ***Short Course set up***

Main-Primary configuration-single ended



**Pool Configuration**

Deck cabling

Near End only

Near lane (HA1) at RIGHT

Near finishes only

25 Pool Length

8 Number of lanes

Contact

☐ No splits (ARES backup)

Test

Lane numbering

| Module # |      | Lane # |
|----------|------|--------|
| 1        | <--> | 1      |
| 2        | <--> | 2      |
| 3        | <--> | 3      |
| 4        | <--> | 4      |
| 5        | <--> | 5      |
| 6        | <--> | 6      |
| 7        | <--> | 7      |
| 8        | <--> | 8      |
|          | <--> |        |
|          | <--> |        |

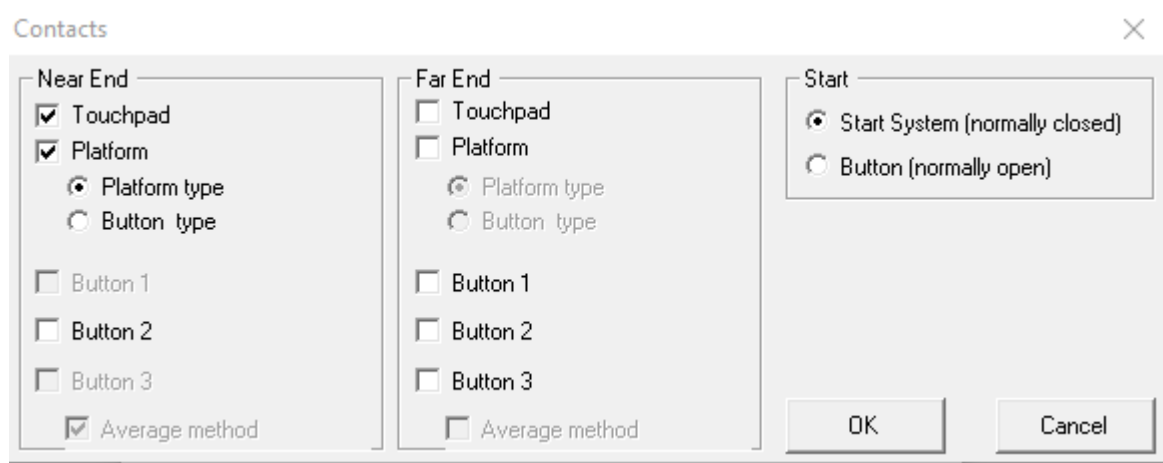
Factory settings

8 / 8 10 / 10 8 / 10

OK Cancel

## Main - Primary Contacts – single ended

Next, click the Primary Contacts button. The Primary ARES is for Touchpads and platform reactions (dive blocks). Make sure the button average box is checked but grayed out. If it is not checked then turn on Button 2 and Button 3 select average and then turn off Button 2 and 3.



**Contacts**

Near End

☒ Touchpad

☒ Platform

☒ Platform type

☐ Button type

☐ Button 1

☐ Button 2

☐ Button 3

☒ Average method

Far End

☐ Touchpad

☐ Platform

☒ Platform type

☐ Button type

☐ Button 1

☐ Button 2

☐ Button 3

☐ Average method

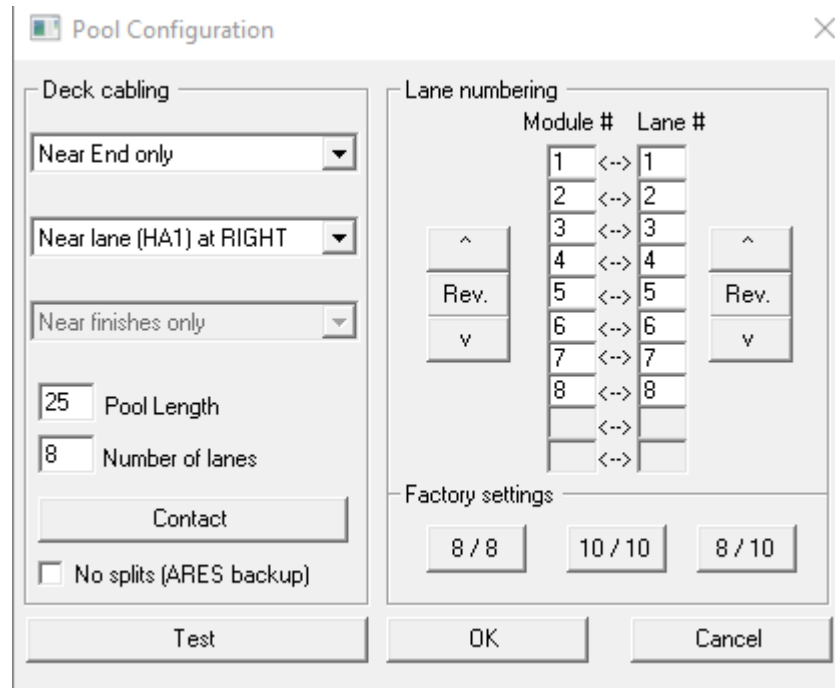
Start

☒ Start System (normally closed)

☐ Button (normally open)

OK Cancel

## Main - Backup configuration - single ended



The Pool Configuration dialog box is shown with the following settings:

- Deck cabling: Near End only
- Near lane (HA1) at RIGHT
- Near finishes only
- Pool Length: 25
- Number of lanes: 8
- Contact button
- No splits (ARES backup) checkbox is unchecked
- Lane numbering table:

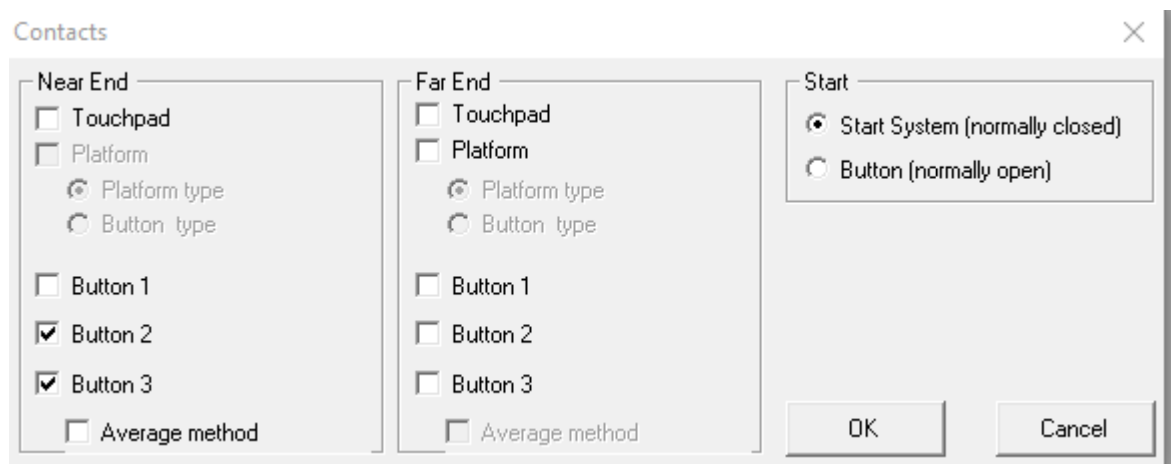
| Module # |      | Lane # |
|----------|------|--------|
| 1        | <--> | 1      |
| 2        | <--> | 2      |
| 3        | <--> | 3      |
| 4        | <--> | 4      |
| 5        | <--> | 5      |
| 6        | <--> | 6      |
| 7        | <--> | 7      |
| 8        | <--> | 8      |
|          | <--> |        |
|          | <--> |        |

Factory settings: 8 / 8, 10 / 10, 8 / 10

Buttons: Test, OK, Cancel

## Main - Backup Contacts – single ended

Next, click the backup Contacts button. The backup Ares is for plungers. Make sure the button average box is **not** checked. If it is checked then turn on Button 2 and Button 3 and unselect average. The average for the plungers is only set on the Primary setup. Having both Backup and Primary averaging will cause an issue.



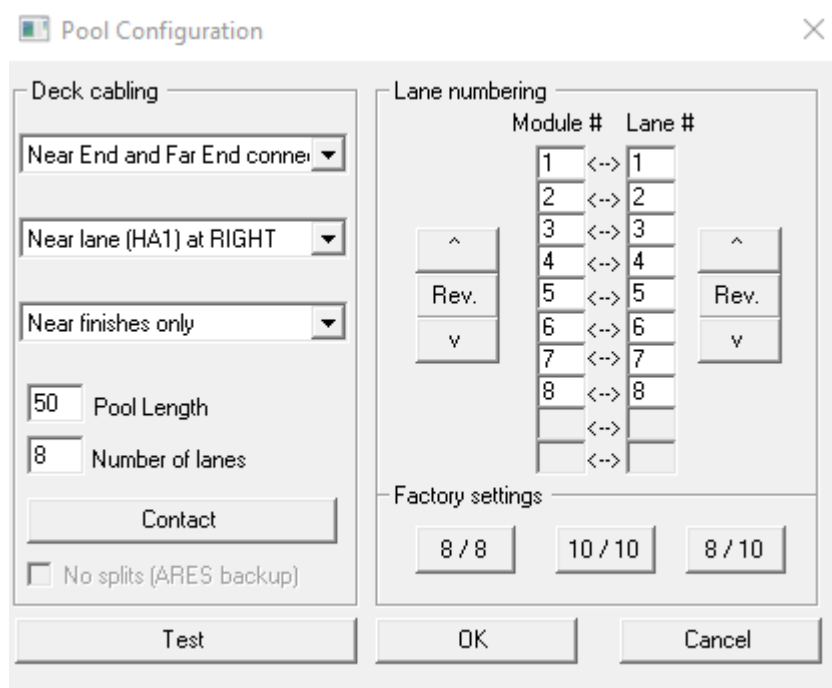
The Contacts dialog box is shown with the following settings:

- Near End:
  - Touchpad checkbox is unchecked
  - Platform checkbox is unchecked
  - Platform type radio button is selected
  - Button type radio button is unselected
  - Button 1 checkbox is unchecked
  - Button 2 checkbox is checked
  - Button 3 checkbox is checked
  - Average method checkbox is unchecked
- Far End:
  - Touchpad checkbox is unchecked
  - Platform checkbox is unchecked
  - Platform type radio button is selected
  - Button type radio button is unselected
  - Button 1 checkbox is unchecked
  - Button 2 checkbox is unchecked
  - Button 3 checkbox is unchecked
  - Average method checkbox is unchecked
- Start:
  - Start System (normally closed) radio button is selected
  - Button (normally open) radio button is unselected

Buttons: OK, Cancel

## Long Course set up

### Main - Primary configuration-Single ended



The Pool Configuration dialog box is used to set up the primary configuration for a single-ended pool. It includes sections for Deck cabling, Lane numbering, and Factory settings.

**Deck cabling**

- Near End and Far End connection: Near End and Far End connection
- Near lane (HA1) at RIGHT
- Near finishes only
- Pool Length: 50
- Number of lanes: 8
- Contact
- ☐ No splits (ARES backup)

**Lane numbering**

| Module # | Lane # |
|----------|--------|
| 1        | 1      |
| 2        | 2      |
| 3        | 3      |
| 4        | 4      |
| 5        | 5      |
| 6        | 6      |
| 7        | 7      |
| 8        | 8      |
|          |        |
|          |        |

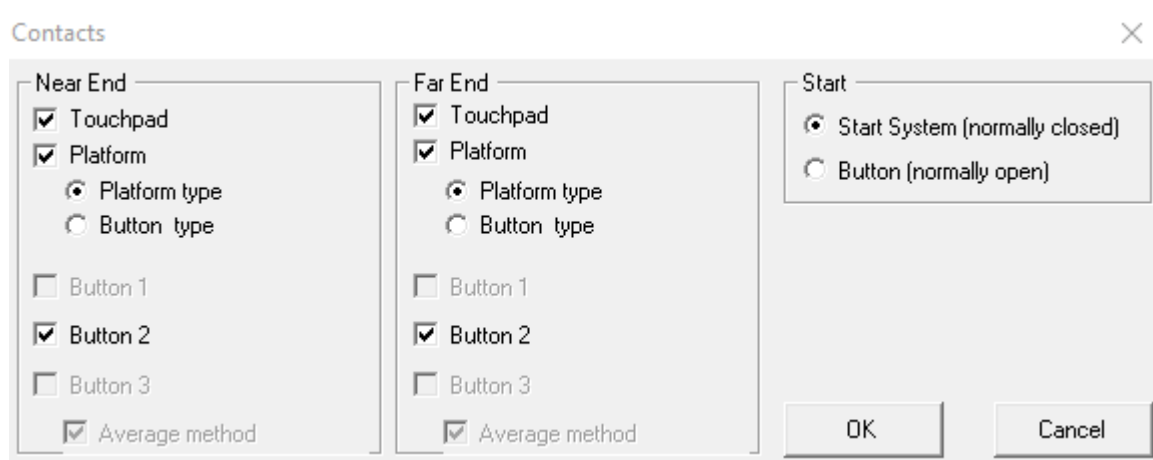
**Factory settings**

- 8 / 8
- 10 / 10
- 8 / 10

Buttons: Test, OK, Cancel

### Main - Primary Contacts – single ended

Next, click the Primary Contacts button. The Primary ARES is for Touchpads and platform reactions (dive blocks). Make sure the button average box is checked but grayed out. If it is not checked then turn on Button 2 and Button 3 select average and then turn off Button 2 and 3.



The Contacts dialog box is used to configure the primary contacts for a single-ended pool. It includes sections for Near End, Far End, and Start.

**Near End**

- ☒ Touchpad
- ☒ Platform
  - ☒ Platform type
  - ☐ Button type
- ☐ Button 1
- ☒ Button 2
- ☐ Button 3
- ☒ Average method

**Far End**

- ☒ Touchpad
- ☒ Platform
  - ☒ Platform type
  - ☐ Button type
- ☐ Button 1
- ☒ Button 2
- ☐ Button 3
- ☒ Average method

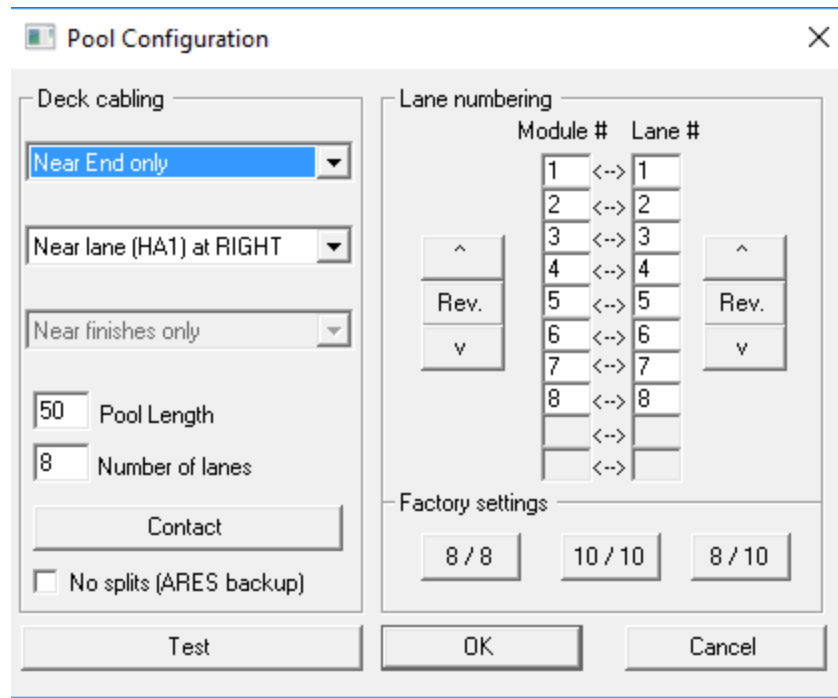
**Start**

- ☒ Start System (normally closed)
- ☐ Button (normally open)

Buttons: OK, Cancel



## Main - Backup Configuration – single ended



The Pool Configuration dialog box is used to set up the backup configuration for a single-ended pool. It includes sections for Deck cabling, Lane numbering, and Factory settings.

**Deck cabling**

- Near End only (selected)
- Near lane (HA1) at RIGHT
- Near finishes only
- 50 Pool Length
- 8 Number of lanes
- Contact
- ☐ No splits (ARES backup)

**Lane numbering**

| Module # |      | Lane # |
|----------|------|--------|
| 1        | <--> | 1      |
| 2        | <--> | 2      |
| 3        | <--> | 3      |
| 4        | <--> | 4      |
| 5        | <--> | 5      |
| 6        | <--> | 6      |
| 7        | <--> | 7      |
| 8        | <--> | 8      |
|          | <--> |        |
|          | <--> |        |

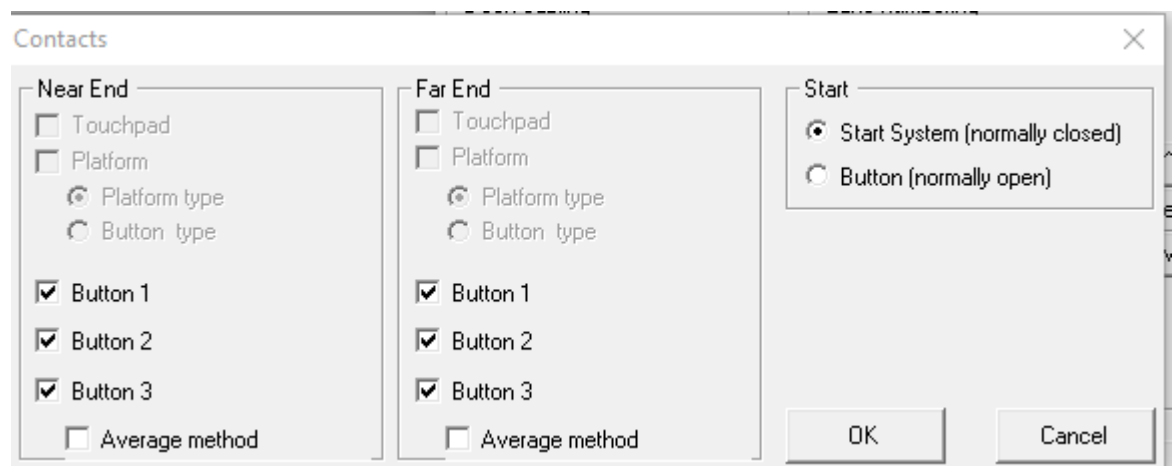
**Factory settings**

- 8 / 8
- 10 / 10
- 8 / 10

Buttons: Test, OK, Cancel

## Main - Backup Contacts

Next, click the Backup Contacts button. The Backup Ares is for plungers. Make sure the button average box is **not** checked. If it is checked then turn on Button 2 and Button 3 and unselect average. The average for the plungers is only set on the Primary setup. Having both Backup and Primary averaging will cause an issue.



The Contacts dialog box is used to configure the backup contacts for the pool. It includes sections for Near End, Far End, and Start.

**Near End**

- ☐ Touchpad
- ☐ Platform
- ☒ Platform type
- ☐ Button type
- ☒ Button 1
- ☒ Button 2
- ☒ Button 3
- ☐ Average method

**Far End**

- ☐ Touchpad
- ☐ Platform
- ☒ Platform type
- ☐ Button type
- ☒ Button 1
- ☒ Button 2
- ☒ Button 3
- ☐ Average method

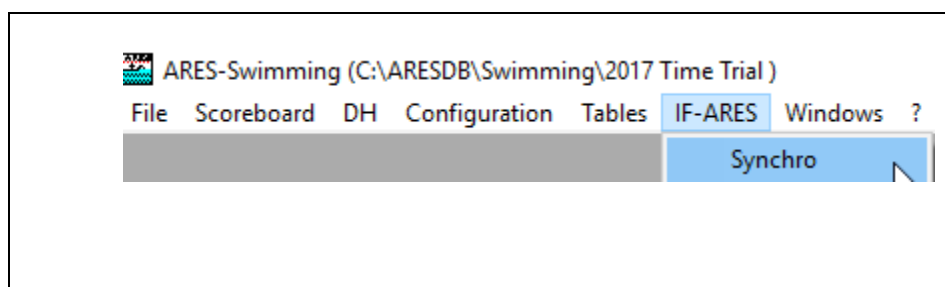
**Start**

- ☒ Start System (normally closed)
- ☐ Button (normally open)

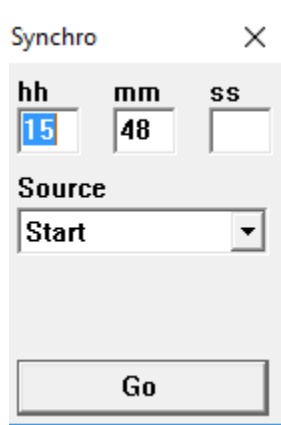
Buttons: OK, Cancel

## ***Synchronizing the ARES controllers***

- You should synchronize the IF-ARES boxes each time they are switched on
- Make sure both laptops have the same time.
- To synchronize select the IF-ARES syncro option on both laptops.



- When the synchro boxes appear be sure they have the same time and then select **Go**.
- If an error message appears that says “Please, restart IF-Ares and retry” the ARES boxes need to be restarted prior to the synchronization process. Press cancel to close the dialog box, turn **off** and then **on** the power switch on both ARES red boxes and then reselect IF-ARES> Syncro option again.

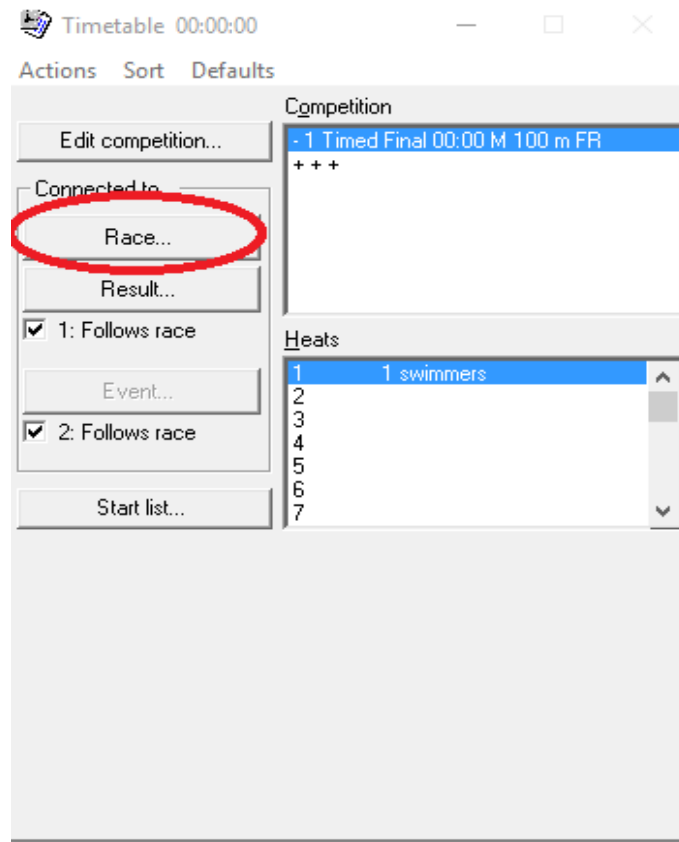


- To synch the two boxes you will need to fire the starter once both Synchro boxes are up and have the same time. If no messages appear on either laptop after firing the starter then the sync was successful.

## Setting up and Testing Starter Box

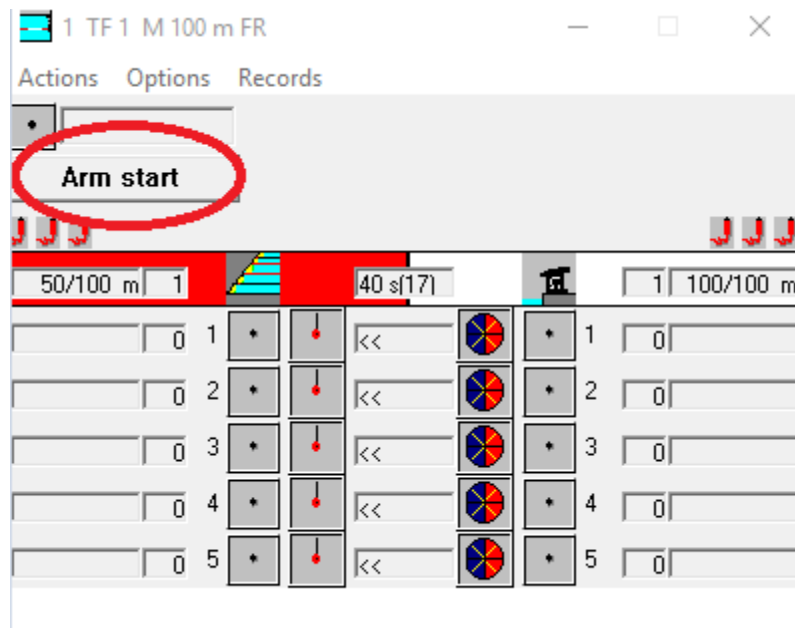
### Starting a Race

Using the timetable window select the correct competition (Event) and heat for your end of the pool and select the '**Race**' button or double click on the desired heat.



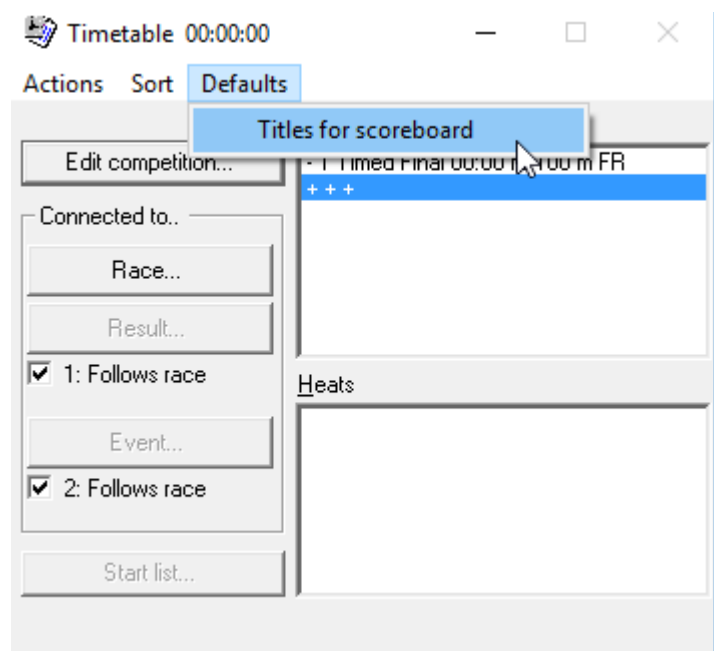
### Starter Box

Once the race is loaded the starter box mic will show a green light. Once the light is lit the race is ready to begin. If for any reason the booth needs to disable the system so a start cannot take place, click on the "**Arm start**" button so a time is running. This action will turn **out** the green light on the start box. If the starter attempts to start a race in the state the normal start beep will be replaced by the recall alarm.



## Running a test Race

- To see the information for each race on the scoreboard you must first select **'Titles for Scoreboard'** and apply to all events from the Timetable window. Select this after you have finished downloading the events and heats for the session



Default title for scoreboard

Ev:%0 H:%2 %3 %4 %5

Heat %0 = Event Nb, %1 = Heat Nb, %2 = Category %3 = Distance %4 = Style

☒ Apply to all events

☐ Apply only to empty titles

Factory OK Cancel

Some automatic fields may be inserted:

%0 Event Number  
 %1 Round  
 %2 Heat number  
 %3 Category  
 %4 Length  
 %5 Style

- It is helpful for the Recorder Scorer if the print outs (F12) are labeled as either **Primary** or **Backup**. To label each session edit the first event by opening the 'Edit Competition' button and type either Primary or Backup on the 'Title to Print' field. To save each other title open and then close each event via 'Edit Competition'. This action works like a save.

Competition

Event Nb: 1 Date: 04/15/17 Start time: 00:00

Race: 100 m Freestyle Men

Title for Print: Primary

Title for Scoreboard: Ev:%0 H:%2 %3 %4 %5

Judge name for print:

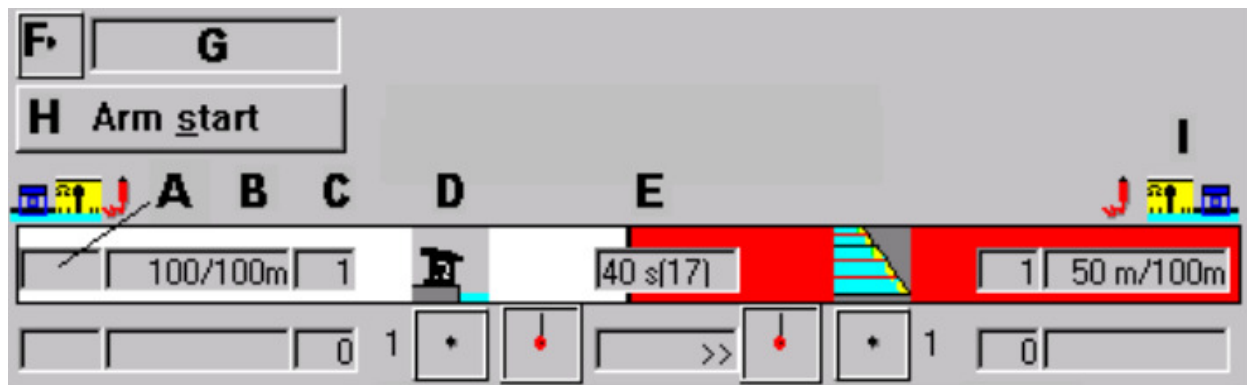
OK Cancel

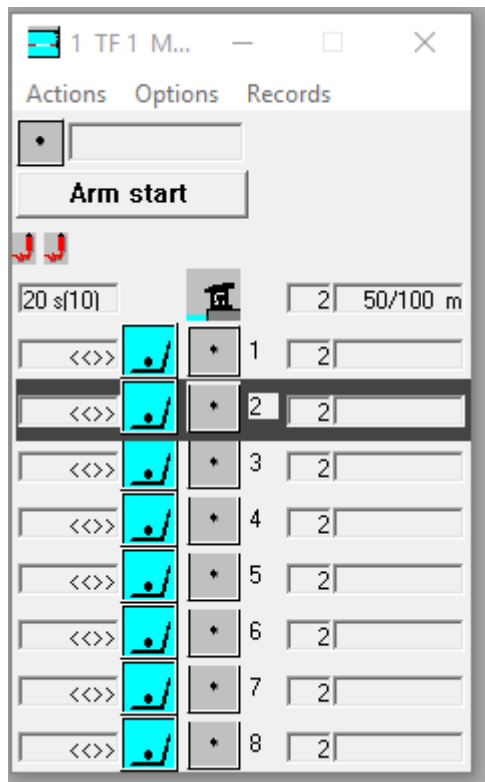
- Next, double click on the same heat for test event 999 on both primary and backup laptops. The light on the starter box mic should turn green.
- Next, test the mic volume and then press the Start button. The starter should sound and the race should start on both laptops.

## Race Time

### 7) How to run the timing laptops during a meet

Reading a race window





### **On Line title above lane**

- A) Shows the reaction time
- B) Indicates the lap distance on the total distance to each side
- C) Number of laps expected for this side
- D) Stage of race (start, intermediate, finish)
- E) Displays the arm delay

### **On the lanes below title**

- A) Relay or reaction times
- B) Times
- C) Number of laps done
- D) Status of the touchpads
- E) Direction expected and rank

### **Start**

- F) Arm status
- G) Running time

H) Arm start button

## Configuration

I) Shows the contacts configuration for each side

## Arming delay

Arm delay

|    |             |
|----|-------------|
| 40 | Normal      |
| 17 | After start |
| OK | Cancel      |

This option is accessed from the Race window with the menu<Options>Arm delays.

Use this to control the automatic arming process.

The **Normal** delay is a setting for during the race. This delay should be a little less than the fastest time a swimmer can swim back and forth along the pool.

The **After Start** is a setting for just after the start and should be set to be a little less than the fastest time a swimmer can swim from the start to the opposite end.

## Popup menus for lanes during the race

Popup menus for the lanes can be accessed by right clicking the time field or by pressing the number for the lane. They can be changed individually (Popup menus for the lane) or all together (Menu action of race dialog).

- **For Example:** If a swimmer has a soft touch you may need to add a touch by right clicking on the lane and adding a lap. Do the reverse to subtract a touch.

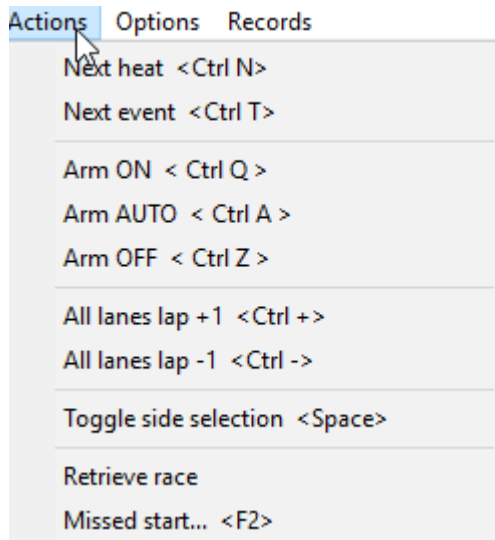
## Other actions while race is underway

Press the lane number and then:

- **U** to disable a lane if there is no swimmer



- **U** to enable a lane that has been disabled
- **+** to add a touch (soft touch by swimmer)
- **-** to subtract a touch (activated by someone else by mistake)
- **B** to insert a backup-up time at the end of the race

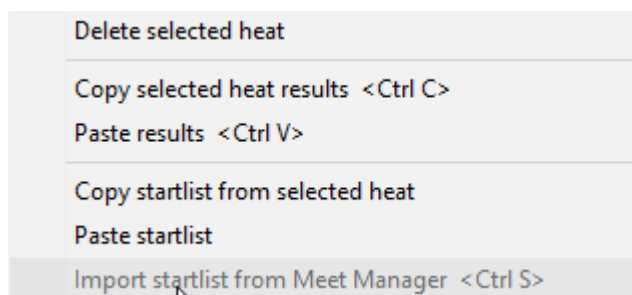


#### **Troubleshooting:**

- The Race window has to be in focus for these actions to work correctly

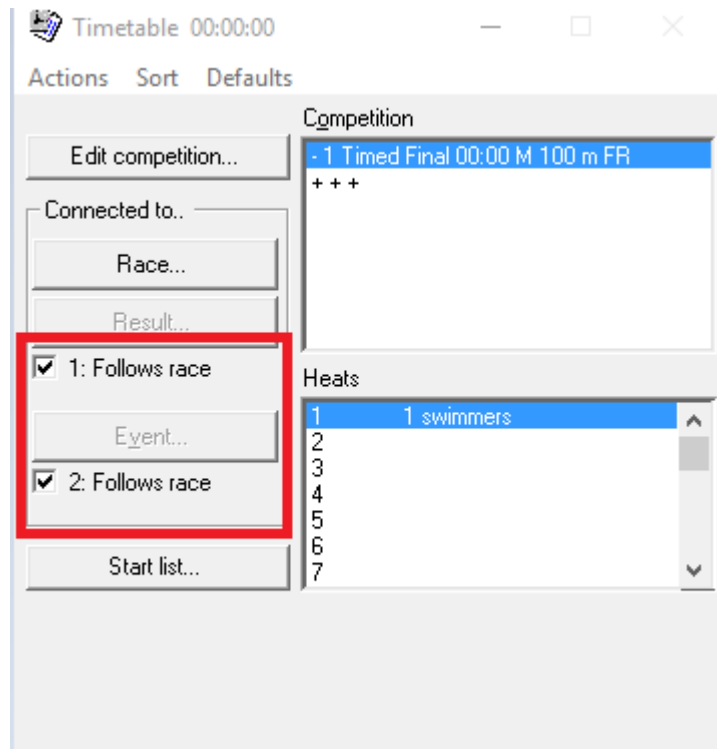
## **Editing Event**

If the event seeding or competitor list changes after you have pulled the complete start list from Hytek you can update just an individual heat after the meet has started. You can do this even while a race is running. Single click on the event and the heat you wish to update. Right click over the heat (it will be highlighted) and from the menu select import startlist from meet manager.

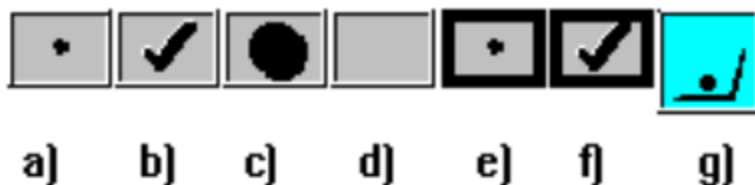


## Unfollowing Race during Meet

- Sometimes it is necessary to check another race while a race is in progress. To do this uncheck the '**Follows Race**' box. This can be useful when a print is needed from a previous race or refreshing a start list in an upcoming race.



## Lane Status



- a) Lane is not armed (due to a arming delay)
- b) Lane is armed (after the arming delay)
- c) Lane is being touched
- d) Lane is unused
- e) Lane is not armed (due to user actions)

- f) Lane is armed (due to user actions)
- g) Lane has completed expected laps

## How to advance to the next Race

To switch to the **next heat**

- From race dialog select Actions>Next Heat or
- On desired heat double mouse click or
- On keyboard press CTRL and N

To switch to the **next Event**

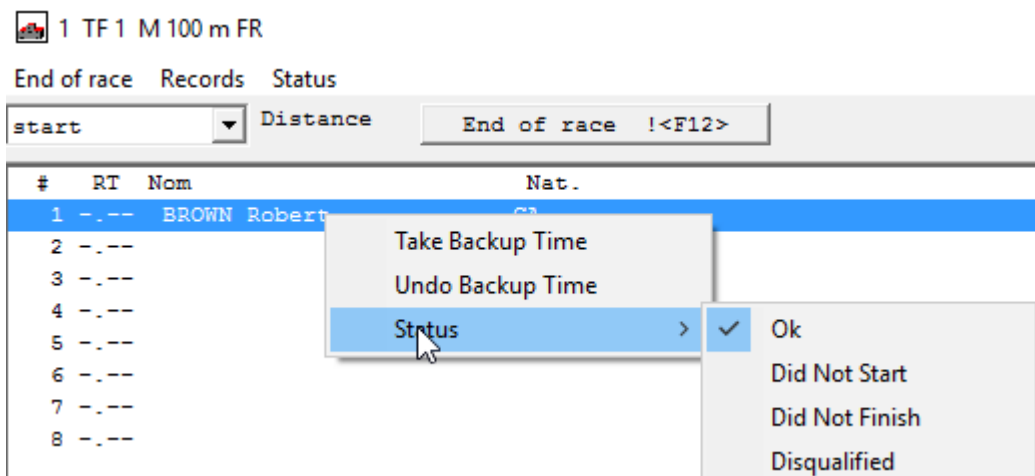
- From the race dialog select Actions>Next Event or
- Click on the desired Event or
- On the keyboard press CTRL and T

### Troubleshooting:

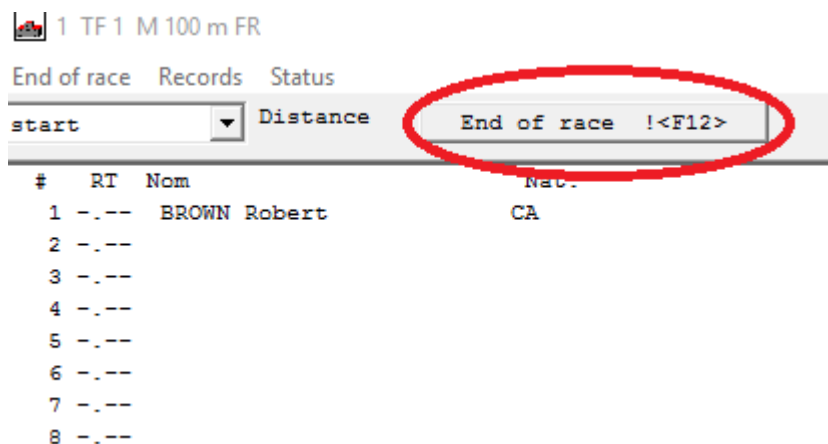
- If you see “**The Event list is not empty, do you want to clear it?**” when you open a race it means this that this event has been started before.
  - It could be that the wrong heat has been selected...press CANCEL
  - It could be that this is indeed a rerun after a false start...press YES.
- If you see “**Do you really want to quit this race?**” when moving to the next race this means that not all swimmers have finished the current race.
  - There may have been a missed touch
  - The swimmer may have stopped before the end
  - There was no swimmer in one of more of the lanes
- It is usually safe to click on YES

Taking **backup time** or to **Disqualify**

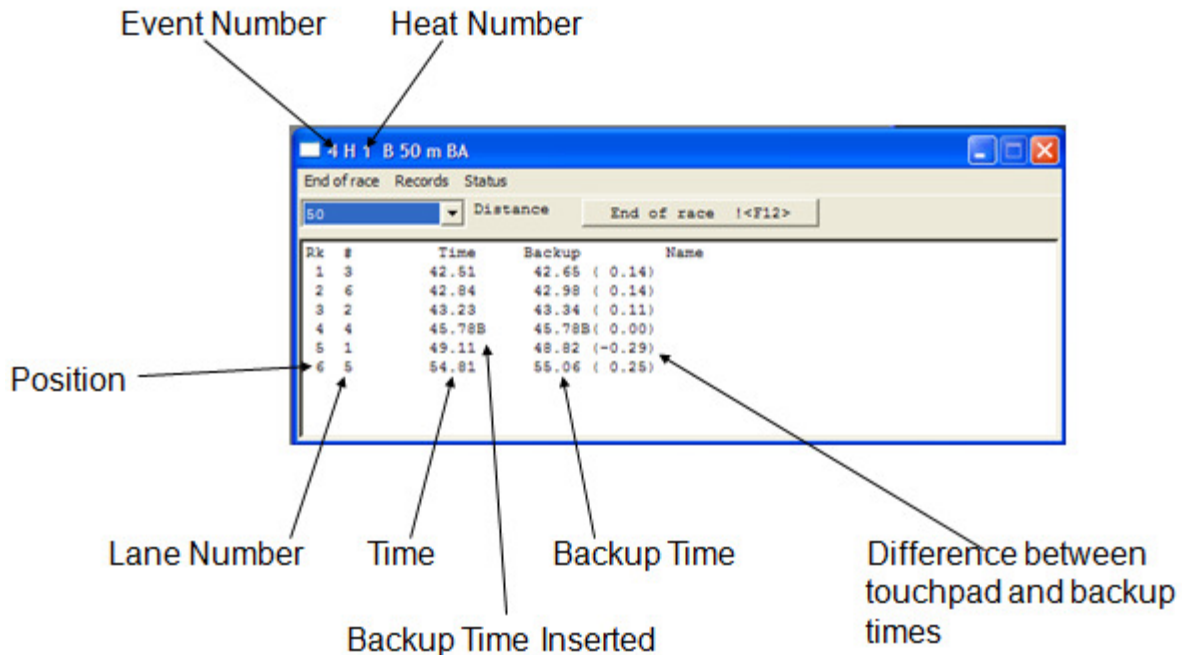
- If a swimmer finishes with a soft touch it is possible to take a backup time. From the End of race window right click on lane and choose ‘Take backup Time’. Under status you can choose Disqualified if need be.



Once the race is complete (still with the race window in focus) press the '**End of Race !<F12>**' key to send the results to the printer. If a message appears stating you should set the printer to landscape mode press the "Disable this message" box before pressing the OK. This will prevent the window from appearing every time.



# The Result Window



## 8) Scoreboard setup

- From the scoreboard laptop open the vacs\_msmp File>Open >8 lane Saanich576 (folder ) >8 Lane.evt>Open Single pool

This will show a single ended race on the scoreboard.

To change titles for your meet:

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