START AT 13:35:31.397 DATE: 10-06-12 SOURCE: EXTERNAL RACE: 881 L EVENT: 053 E HEAT/R: 02 F L L N A A G LENGTH: 08 C N T -TIME-4 2 29.18 5 30.26 32.12 3 35.14 36.48 36.75 1 37.94 8 39.06 1:02.65. 5 1:03.56 4 1:08.92 4 2 1:15.60 4 1:18.67 6 1:19.37 1 4 1:21.44 8 4 1:24.49 4 1:37.04 1:39.01 1:46.78 1:57.82 6 2:01.19 6 2:03.16 6 2:06.70 1 4 2:11.26 8 5 8 2:11.42 8 2:11.60 6 3 R 2:24.27 2:38.52 8 7 8 2:42.62 6 8 2:46.24 8 2:49.46 2:56.24

OMNISPORT 2880

DAKTRONICS OMNISPORT 2000 START AT 13:35:31.397 DATE: 10-06-12 SOURCE: EXTERNAL

50	пк	E:	EXIEKNHL
		L	RACE: 881
P		E	EVENT:053
L	L	И	
A	A	G	LENGTH: 08
C	N	T	
E	E	Н	-RESULTS-
7	1	8	2:49.46
		BK	2:49.65
		B1	2:49.72
		B2	2:49.58
4	2	8	2:38.52
		BK	2:38.60
		B1	2:38.60
		B2	2:38.60
3	3	8	2:24.27
		BK	2:24.45
		B1	2:24.46
		B2	2:24.44
1	4	8	2:11.26
		BK	2:11.41
		B1	2:11.37
		B2	2:11.44
2	5	8	2:11.42
		BK	2:11.54
		B1	2:11.52
		B2	2:11.55
6	6	8	2:46.24
		BK	2:46.37
		B1	2:46.41
		B2	2:46.33
5	7	8	2:42.62
		BK	2:42.80
		B1	2:42.76
		BS	2:42.84
8	8	8	2:56.24
		BK	2:56.37

DAKTRONIKCS OMNISPORT 2000 **

TIMING SLIP EXAMPLES

Example 1

This is an example of a "clean" heat. There were no timing malfunctions, soft touches, no touches, etc. This particular race was a 200 Y Freestyle, which cannot be determined from the timing slip.

Top of tape is a recording of the race as it progresses.

- Race # always can retrieve by race #
- Event #
- Heat #
- F or P (final or prelim)
- Length of race in this case 8 lengths or a 200
- Splits by lane and length
 - This can help in determining if a swimmer missed a touch and the final touch was actually recorded based on subtractive splits.

Bottom of tape summarizes the race.

- Repeats race, event, heat, prelim/final, length
- Place
- Lane
- Top number is pad time across from lengths
- This system uses 2 backup times. Top one is average of two backup buttons (BK) followed by each individual backup button.
 - Lane 8 buttons were cutoff in scanning—they were:
 2:56.32,2:56.42

**Colorado timing systems record the same type of information on a chatter sheet, which can be printed at the end of each race. The format is slightly different, but all of the information is available.

DAKTRONICS OMNISPORT 2000 START AT 13:31:42.769 DATE: 10-06-12 SOURCE: EXTERNAL RACE: 880 EVENT: 053 E L N HEAT/R: 01 F L A A G LENGTH: 08 C N T E H -TIME-E 1 LANE OFF LANE OFF 7 8 LANE OFF 33.91 2 42.90 4 6 2 43.78 5 2 44.68 46.42 2 2 3 4 1:13.42 4 4 1:32.89 5 4 1:34.61 4 6 1:35.16 2 1:46.83 + 4 3 6 1:53.99. 4 2:23.60 6 6 2:24.54 6 2:24.60 5 6 3 8 2:34.22 2 6 2:42.62 5 8 3:10.81 3:11.18 6 8 2 8 3:36.34 3:37.31

DAKTRONICS OMNISPORT 2000 START AT 13:31:42.769 DATE: 10-06-12 SOURCE: EXTERNAL L RACE:880 P E EVENT:053

		L		R	A	C	E	:	8	8	0	
P		E	E	Ų	E	N	T	:	Ô	5	3	
L	L	N	HE	A	T	1	R	:	0	1		F
A	A	G	LE	N	G	T	H	:	0	8		
C	N	T										
\mathbf{E}	E	Н		-	R	E	S	Ц	L	T	S	-
4	2	8		3	:	3	6		3	4		
		BK		3	:	3	6		5	9		
		B1		3	:	3	6		8	2		
		B2		3	:	3	6		3	5		
1	3	8	*	2	:	3	4		2	2		
5	4	8	*	3	:	3	7		3	1		
		BK		3	:	1	0	١.	1	1		
		B1		3	:	1	0	١.	0	9		
		B2		3	:	1	0	٠.	1	2		
2	5	8		3	:	1	0		8	1		
		BK		3	:	1	Q	١.	9	1		
		B1		3	:	1	Q	١,	9	0)	
		B2		3	:	1	0	٠.	9	1		
3	6	8		3	:	1	1		1	8		
		BK		3	:	1	1		2	6		
		B1		3	:	1	1		2	7	•	
		B2		3	:	1	1		2	5	•	
		5	- 1	1								

Example 2

This was a 200 Y Freestyle event. This example shows the importance of having an order of finish judge and a good timing operator who notes finishes on their heat sheets. Timers are also to note soft or no touches on finishes.

Top of tape:

• Lane 2 missed a touch and the timing operator manually armed the pad. This is denoted by the +

- Lane 3 has a pad time but no backup button times. In addition the timers did not get watch times.
 - However the timing operator and order of finish judge confirmed there was a swimmer.
 - Order of finish 34562- confirmed the swimmers place. This
 was noted on the order of finish judge's heat sheet, and
 checked by the timing judge.
 - Splits also indicate that the time was accurate (33.91, 1:13.42(39.50), 1:53.99(40.57), 2:34.22(40.23))
 - o Pad time was the most automated and ONLY time available.
- Lane 4 pad time was 27 seconds slower than the backup buttons, and thus the Daktronics flagged the time. Times are set on this system to flag at greater than 0.3.
 - Timing operator noted a soft touch in lane 4. This was noted on the bottom of the tape by the timing judge, after communicating with the timing operator.
 - Order of Finish 34562 confirms lane 4 finished before lane
 Therefore, the backup times were taken and corrected (by Meet Manager).
 - If lane 4 was not corrected they would have finished behind lane 6, which we knew was incorrect. The order of finish was confirming the need for using the backup not changing the order. Changing order of finish requires 2 judges noting a different order and nonfunctioning timing equipment.

```
DAKTRONICS
   OMNISPORT 2000
START AT 13:38:44.695
 DATE: 10-06-12
SOURCE: EXTERNAL
              RACE: 882
        E
             EVENT: 054
 L
    L
        N
           HEAT/R: 01 F
 A
    A
        G
           LENGTH: 08
 C
    N
        T
    E
       н
              -TIME-
      LANE OFF
      LANE OFF
    2
    8
      LANE
            OFF
      LANE OFF
                36.78
    3
       2
                40.17
       2
                40.90
    5
       2
                43.48
             1:18.94
    3
       4
             1:24.47
    6
       4
             1:31.88
             1:39.63 +
       4
       6
             2:03.17
    3
       6
             2:10.30
    6
       6
             2:20.98
       6
             2:30.96
       8
             2:43.58
    6
       8
             3:11.04
             3:21.37
```

DAKTRONICS OMNISPORT 2000 START AT 13:38:44.695 DATE: 10-06-12 SOURCE: EXTERNAL L RACE: 882 P E EVENT: 054 L L HEAT/R: 01 F A G LENGTH: 08 C N T н -RESULTS-* 2:10.30 3 6 BK 2:53.92 B1 2:53.88 2:53.95 1 8 2:43.58 BK 2:43.73 B1 2:43.75 B2 2:43.70 8 3:21.37 BK 3:21.46 B1 3:21.41 B2 3:21.51 2 8 3:11.04 BK 3:11.30 3:11.28 B2

Example 3

This was a 200 Y Freestyle event. This example discusses using lengths to identify errors in timing.

Top of tape:

• Lane 5 missed the touch at the 100 (4 lengths). The + indicates the pad was manually armed for the next length.

- Lane 3 is showing they only completed 6 lengths.
 - o Splits indicate that the pad was not set off on the last length.
 - o Timing judge indicated a soft touch.
 - Order of finish 4365 confirms use of backup.
 - Lane 3 finished after lane 4.

```
RACE: 883
       E
            EVENT: 054
       N
G
   L
           HEAT/R:02 F
LACE
           LENGTH: 08
   N
E
       T
H
             -TIME-
       2
                30.41
   5
       2
                32.32
                32.48
   2
       2
                34.17
                34.19
                36.26
   8
       2
               36.46
                38.73
       2 4 4 4
             1:05.15
             1:08.17
             1:08.91
             1:11.95
       4
             1:13.95
       4
             1:17.46
   8
             1:19.50
       4
             1:21.78
       6
             1:40.42
             1:44.67
       6
             1:44.89
   2
       6
             1:49.32
      6
             1:53.16
             1:59.24
   8
      6
             2:04.16
      6
             2:07.10
             2:17.15
      8
             2:17.29
      8
             2:23.71
      8
             2:24.08
      8
             2:30.70 2:39.45
      8
      8
             2:46.11
```

DAKTRONICS OMNISPORT 2000 START AT 13:42:19.854 DATE: 10-06-12 SOURCE: EXTERNAL RACE: 883 EVENT: 054 L HEAT/R: 02 F ACE A N E G LENGTH: 08 T -RESULTS-8 1 * 2:49.49 BK 2:49.80 2:49.89 B1 B2 2:49.71 2:24.08 2:24.21 B1 2:24.16 B2 2:24.26 8 2:30.70 BK 2:30.80 B1 2:30.81 2:30.78 B2 8 * 2:23.71 BK 2:11.32 B1 2:11.30 2:11.33 BZ 8 2:17.15 BK 2:17.27 B1 2:17.26 R2 2:17.27 8 2:17.29 вк 2:17.44 **B1** 2:17.46 2:17.41 B2 8 2:39.45 BK 2:39.66 2:39.65 B1 2:39.66 8 2:46.11 2:46.25 BK B1 2:46.22 2:46.27

Example 4

This was a 200 Y Freestyle event, where a pad time was faster than backup buttons. Also, the order of finish judge noted they could not determine the order of 2 lanes.

Top of tape:

No discrepancies.

- Lane 1 pad time was faster than backup times and flagged because the average backup and one of the backup times were not within 0.3sec.
 - o Pad time was confirmed by one backup time 2:49.71.
 - No reason to change.
- Lane 4 was flagged.
 - o Timing judge noted a soft touch.
 - Order of finish is a double check and confirms 46523781.
 - Backup was taken and corrected.
- Order of finish judge noted lane 4 came in first but also showed that they were unsure if lane 6 or 5 came in next by circling the numbers. They may indicate this in other manners as well, i.e. ? If there is a large gap in their recorded order, in which they are unsure, they may indicate with a line between numbers, i.e. 4____3781.

DAKTRONICS OMNISPORT 2000 START AT 12:14:26.859 DATE: 10-06-12 SOURCE: EXTERNAL RACE: 850 EVENT: 037 PLACE E N HEAT/R:02 G LENGTH: 02 TIME-4 2 32.35 2 32.78 33.17 33.48 33.59 34.17 2

DAKTRONICS
OMNISPORT 2000
START AT 12:14:26.859
DATE: 10-06-12
SOURCE: EXTERNAL

		L		RA	С	E	:	8	5	0	
P		E	F	EVE	N	T	:	0	3	7	
L	L	N	HE	CAT	1	R	:	0	2		F
A	A	G	LE	ENG	T	н	:	0	2		
C	N	T									
E	E	Н		- R	E	S	Ц	L	T	S	-
5	1	2						5			
		BK						6			
		B1						6			
		B2			3	3		5	9		
8	2	2	*					9			
		BK			3	6		5	5		
		B1						5			
		B2			3	6		5	4		
6	3	2			3	4		1	7		
		BK			3	4		2	3		
		B1			3	4		2	5		
		B2			3	4		2	1		
1	4	2			3	2		3	5		
		BK						4			
		B1						4			
		B2			3	2		4	9		
3	5	2			3	3		1	7		
		BK			3	3		2	6		
		B1			3	3		2	4		
		BS			3	3		2	7		
2	6	2			3	2		7	8		
		BK			3	2		8	6		
		B1		3	3	2		8	4		
		BS			3	2		8	7		
4	7	2			3:	3		4	8		
		BK			3 :	3		4	9		
		B1			3	3		5	0		
		B2						4			
7	8	2			3 :	5		7	8		
		BK						7			
		B1			3 !	5		7	4		
		B2			3 :	5		7	8		

Example 5

This was a 50 Y Freestyle event, where based on all of the information no change was made, even though a lane was flagged.

Top of tape:

• No discrepancies.

- Lane 2 pad time was slower than backup times and flagged because the average backup and backup times were not within 0.3sec.
 - o No soft touch was noted by timing operator or timers.
 - o Order of finish judge recorded 4657128.
 - Although lane 2 was recorded to finish before lane 8, automated times were available, and backup times on lane 2 would not change that order. In addition, only one order of finish judge was available and was positioned closer to lane 2 than lane 8.
 - This was not a backstroke event or butterfly event where swimmers are more likely to not set the pad off due to how they touch, i.e. top of the pad.
 - This was an 11-12 year old event and swimmers at this age are generally hitting the pad hard.
 - There was no evidence that a change needed to be made to the pad time, and thus it was not changed.

START AT 12:12:54.285 DATE: 10-06-12 SOURCE: EXTERNAL RACE: 849 **EUENT: 037** L L N HEAT/R: 01 F A A G LENGTH: 02 C T N E -TIME-H 34.45 6 2 4 2 34.68 2 42.36 3 2 47.23 47.72

DAKTRÖNIČŠ OMNISPORT 2000

Example 6

This was a 50 Y Freestyle event, with missing pad times and soft touches.

Top of tape:

• No discrepancies

Bottom of tape:

- Lanes 1 and 7 have no recorded pad time. This is indicated by the 0 in the length column, and lack of time above the average backup button.
 - Need to take the most automated times, which would be the corrected backup times.
 - o Timing operator did note soft touches for these lanes.
 - Order of finish 6425137 confirms lane 7 is last, and puts lane 1 after lane 5, since a soft touch was also noted in lane 5.
- Lane 2 pad time was 10 seconds off of backup time.
 - Common sense indicates something is wrong. In this case timing judge and order of finish assist in confirming. The likely scenario was the swimmer set off the pad climbing out of the pool. Since it was the first heat, the swimmer may be less experienced, even though it was a forward finishing stroke and older age range. However, if this information was not available then confirming with timers how the swimmer touched the wall, or if they accidently stepped on the pad if it was a gutterless pool could give additional insight into the discrepancy, and validation for a change.
 - Note timers' times were not consulted since they would have been similar to the backup times, as they are the same operators.
- Lane 5 soft touch indicated and confirmed by timing operator and order of finish.

DAKTRONICS OMNISPORT 2000 START AT 12:12:54.285 DATE: 10-06-12 SOURCE: EXTERNAL

50	UR	CE:	EXT	ERNAL	
		L		RACE: 849	
P		E	E	UENT: 037	
L	L	N	HE	AT/R:01	F
A	A	G	LE	NGTH: 02	
C	N	T			
E	E	Н		-RESULTS	-
	1	0			
		BK		42.36	
		B1		42.30	
		B2		42.41	
5	2	2	*	47.72	
		BK		38.70	
		B1		38.61	
		B2		38.79	
4	3	2		47.23	
		BK		47.36	
		B1		47.38	
		B2		47.34	
2	4	2		34.68	
		BK		34.80	
		B1		34.80	
		B2		34.79	
3	5	2	*	42.36	
		BK		41.69	
		B1		41.67	
		B2		41.71	
1	6	2		34.45	
		BK		34.50	
		B1		34.47	
		BS		34.53	
	7	0			
		BK		50.25	
		B1		50.21	
		B2		50.29	
		ST	1,	2,5,7	

DAKTRONICS OMNISPORT 2000 START AT 12:07:53.181 DATE: 10-06-12 SOURCE: EXTERNAL RACE: 846 EVENT: 036 E HEAT/R: 01 F L L N LENGTH: 02 A A G C N E T -TIME-H 1 LANE OFF 2 LANE OFF 6 LANE OFF LANE OFF

8 LANE OFF

2

L

4 2

5 2

19.15

40.77

1:10.82

RACE: 846

DAKTRONICS OMNISPORT 2000 START AT 12:07:53.181 DATE: 10-06-12 SOURCE: EXTERNAL

P		E	EVENT: 036
L	L	N	HEAT/R: 01 F
A	A	G	LENGTH: 02
C	N	T	
E	\mathbf{E}	н	-RESULTS-
3	3	2	1:10.82
		BK	1:10.85
		B1	1:10.79
		BZ	1:10.91
1	4	2	* 19.15
		BK	55.58
		B1	55.53
		B2	55.62
2	5	2	40.77
		BK	41.00
		B1	40.94
		B2	41.05

Example 7

This was a 50 Y Freestyle event, with an odd time.

Top of tape:

• No discrepancies, except an odd looking time.

- Lane 2 pad is much faster than backups.
 - Common sense says this is not a reasonable pad time for a 9-10 year old boy.
 - Order of finish 543 supports change and use of backup.

Example 8

This is an example of what the computer operator would see in the Calc screen. Note the pad time, backup times, and Button Calc (average for 2 buttons or middle if 3 were used). In this scenario, no adjustments were needed. This screen also shows the difference between the automated pad time and the average backup times as an average of -0.15 for this heat.

Time Adjustment - #53 Girls 11-12 200 Yard Freestyle - Heat 2

Use	Lane	Primary	Button 1	Button 2	Button 3 ButtonCalc	Difference	Adjusted
===	====	=======================================	=======================================	=======	=======================================	========	=======
Yes	1	2:49.46	2:49.72	2:49.58	2:49.65	-0.19	2:49.46
Yes	2	2:38.52	2:38.60	2:38.60	2:38.60	-0.08	2:38.52
Yes	3	2:24.27	2:24.46	2:24.44	2:24.45	-0.18	2:24.27
Yes	4	2:11.26	2:11.37	2:11.44	2:11.41	-0.15	2:11.26
Yes	5	2:11.42	2:11.52	2:11.55	2:11.54	-0.12	2:11.42
Yes	6	2:46.24	2:46.41	2:46.33	2:46.37	-0.13	2:46.24
Yes	7	2:42.62	2:42.76	2:42.84	2:42.80	-0.18	2:42.62
Yes	8	2:56.24	2:56.32	2:56.42	2:56.37	-0.13	2:56.24

Pad and Backup Differentials: Total = -1.16 and Average = -0.15.

Example 9

In this example, lane 1 had no backup times, so it would not be used for corrections of a backup time to pad time. Lane 3, the backup times are more than 0.3 faster than the pad time. In the actual scenario, there was no supporting evidence to change this time, so the box where it says use would remain unchecked, and the adjustment rejected.

If a soft touch or order of finish had been confirmed then there would be a need to change lane 3. Note the correction to the average backup (Button Calc) would have been -0.12. This is the sum of the differences in the other lanes, divided by the number of lanes used. Signs can change, so always be aware of how the difference is being calculated.

Time Adjustment - #58 Boys 13-14 100 Yard Freestyle - Heat 1

Use	Lane	Primary	Button 1	Button 2	Button 3	ButtonCalc	Difference	Adjusted
===	====	=======	=======	=======	========	========	========	=======
No	1	1:24.36					0	1:24.36
Yes	2	1:20.07	1:20.14	1:20.19		1:20.17	-0.10	1:20.07
Yes	3	1:09.30	1:08.91	1:08.91		1:08.91	0.39	1:08.79
Yes	4	1:05.29	1:05.35	1:05.31		1:05.33	-0.04	1:05.29
Yes	5	1:05.79	1:06.02	1:05.94		1:05.98	-0.19	1:05.79
Yes	6	1:13.24	1:13.28	1:13.43		1:13.36	-0.12	1:13.24
Yes	7	1:10.85	1:10.95	1:11.04		1:11.00	-0.15	1:10.85
No	8							

Pad and Backup Differentials: Total = -0.6 and Average = -0.12.

Example 10

If care is used you may also use the heat malfunction button in MM to determine a correction factor between average watch times and pads. Watch times are only used as a last resort and are always corrected.

Using the information from Event 53 heat 2, race 881, *if there were no automated times available in Lane 3*, the following shows the correction procedure to watch times. MM will also be used to assist in determining the correction factor between pads and watch times.

First step is to gather and average watch times from the heat, or a close heat, or even 2-3 heats. Timers become more consistent during the meet, and thus the correction factor should not vary greatly during the session.

LANE	Watch Time 1	Watch Time 2	Δ	$\Delta/2$	Average Watch Time
1	2:49.75	2:49.12	.63	.31	2:49.43
2	2:38.83	2:38.80	.03	.01	2:38.81
3**	<mark>2:24.64</mark>	<mark>2:24.68</mark>	<mark>.04</mark>	.02	<mark>2:24.66</mark>
4	2:11.69	2:11.53	.16	.08	2:11.61
5	2:11.56	2:11.72	.16	.08	2:11.64
6	2:46.53	2:46.44	.09	.04	2:46.48
7	2:42.78	2:43.10	.16	.08	2:42.94
8	2:56.46	2:56.59	.13	.06	2:56.52

^{**}to be corrected

A few notes:

- Δ is the difference of the watch times.
- $\Delta/2$ is the TRUNCATED half of the watch times. Truncation at the hundredths place.
- The truncated portion is added to the faster watch time to determine the average watch time.
- The other option is to just average and truncate. However the above method is easier when calculating times.

The next step is to "cheat" in MM using the heat malfunction. In the run screen, the computer operator should open the event and heat, open the Calc screen and check Heat Malfunction box.

Time Adjustment - #53 Girls 11-12 200 Yard Freestyle - Heat 2

Use	Lane	Primary	Watch	Difference	Adjusted
===	====	=======	========	========	========
Yes	1	2:49.46	2:49.43	-0.03	2:49.70
Yes	2	2:38.52	2:38.81	0.29	2:38.76
No	3		2:24.66	0	
Yes	4	2:11.26	2:11.61	0.35	2:11.50
Yes	5	2:11.42	2:11.64	0.22	2:11.66
Yes	6	2:46.24	2:46.48	0.24	2:46.48
Yes	7	2:42.62	2:42.94	0.32	2:42.86
Yes	8	2:56.24	2:56.52	0.28	2:56.48

Pad and Watch Differentials: Total = 1.67 and Average = 0.24

A few items of interest:

- Lane 3 is the one being corrected.
- The watch times are slower than the pad times. The calc is Watch-Pad= Correction, so to correct a watch to pad time, it should be rewritten as Watch-Correction= Pad. Note the sign can change depending on the correction factor.
- Timers were consistent with the exception of lanes 4 & 7. If after further review, possibly other heats, these are outliers, then they may be removed from the correction.
- Final official time for Lane 3 = 2:24.66 .24 = 2:24.42
- Order of finish 45327618 confirms proper placement
- The time of 2:24.42 would be typed in to the Lane 3 on the runs screen and taken as the official time.