



Electronic Timing Official Training Clinic

Revised 10/01/2011

Agenda

- Introductions
- Role of ET Official
- Certification Process
- Equipment Setup
- Operating the Console
- Paperwork – Determining the official time
- Worked Examples
- Questions

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OSI Officiating Philosophy

Fair and equitable conditions of competition are maintained and uniformity in the sport is promoted so that no swimmer has an unfair advantage over another

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What does that mean?

- Success of every meet depends on the official's integrity, knowledge, concern and regard for the competitive interest of the swimmer
- One set of rules applies to all swimmers
- Swimmers get the benefit of the doubt
- Demonstrate impartiality and professionalism on deck

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Professionalism on Deck

- Wear standard uniform
 - Typically white polo over blue shorts
 - Long pants/skirts for championship finals
 - Sometimes khaki instead of blue
 - No team logos or advertising
- Wear credentials and name tag
- Be in position on time. Do not vacate position until replacement in place

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The ET Official

- Why?
 - No swimmer shall be required to re-swim a race due to equipment failure which results in unrecorded or inaccurate time or place. (USA Swimming Rule 102.16.4D)
- What?
 - Part of a larger officiating crew
 - Operate electronic timing equipment
 - Determine official time
 - Instruct timers in proper timing procedures

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Certification Process

- Register as non-athlete member with USA Swimming
- Must pass a background check through USA Swimming
- Must attend USA Swimming online Athlete Protection Training
- Begin volunteering at meets
- Attend ET Clinic within first 20 hours of training
- After 20 hours of training obtain 2 positive recommendations from certified ET's
- Forward training record and recommendations to ET chair. Await confirmation to take online test.
- Take and pass on-line open-book test

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Minimum Training Requirements

- At least 2 of the first 6 hours must be with a designated ET trainer
- 10 observed hours on timing console
- 10 observed hours on time verification
- Introductory session
- Attend ET Clinic within first 20 hours of training
- 2 sessions at sanctioned 12 & under meet
- Work at non-home meet
- Successfully complete a heat or lane malfunction calculation (by hand)
- Work one session with the Hy-Tek operator
- 2 consecutive positive recommendations from 2 different trainers

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Instruct Timers in Proper Timing Procedures

- Prior to start of event, instruct timers in proper timing procedures.
 - Start watch at strobe flash
 - Stop watch and button when touch is seen
 - Timer operates one watch and one button. No timer can operate both watches or both buttons
 - Record times on supplied event sheet
 - Head timer will collect event sheets
 - Raise hand if you fail to start watch – head timer should have a backup
 - Ring bell on long events

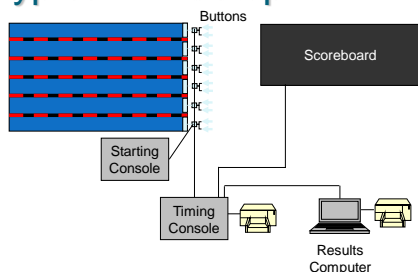
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Set Up Timing Equipment

- Be familiar with Colorado and Daktronics systems
- Know how to set up and operate the equipment
- Allow time before the meet to set up and diagnose problems
- Home crew will often set up equipment, but you still need to check it over
- Ensure starting unit connected
- Ensure buttons and pads in place and connected using harness or deck plates
- Perform test start and then reset for first race

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Typical ET Setup



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Operate Timing Equipment

- ET Console should start timing when starting unit sounds
 - If ET console fails to start, start it manually
 - Ensure ET console set for correct event and heat
 - Check for No Shows/Lanes turned on/off
 - Mark No Shows on ET head sheet
 - When ET unit on deck avoid making console beep just prior to the start
 - Check for intermediate touches. Add/Delete touches as required
 - Finish arm if necessary
 - Store-Print; Reset; Advance to Next Heat or Next Event
- FOCUS ON DRIVING THE CONSOLE WHEN TASKED TO DO SO**

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Determining the Official Time

- Automatic / Semi-Automatic / Manual
- Primary / Secondary / Tertiary times
- What is the official time?

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Types of Timing Systems

- Automatic
 - Automatic start. Finish on touch pads
- Semi-Automatic
 - Automatic start. Finish on buttons
- Manual
 - Watches

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Timing System Designation

- Primary
 - The most accurate system available
 - Could be automatic, semi-automatic, or manual
 - Normally automatic PADS
- Secondary
 - Backup to primary system. Typically BUTTONS
- Tertiary
 - At least one watch should be used as a back up for a automatic or semi-automatic system

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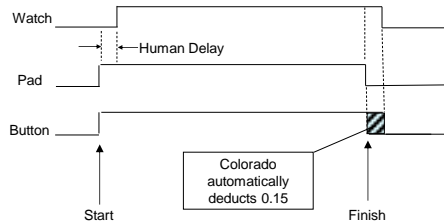
Determination of Official Time

- Timing resolution in 100's, not 1000's of seconds. Thousands are dropped with no rounding
- The time from the correctly operating primary system is the official time
 - Automatic: Pad time
 - Semi-Automatic or Manual
 - Middle time of 3 buttons/watches
 - Average of 2 buttons/watches
 - Time of single button/watch (not a good idea)
- The primary timing system is operating properly if the secondary or tertiary time confirms by 0.30 seconds or less

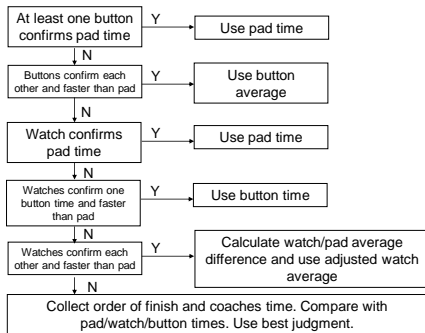
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Colorado vs Daktronics

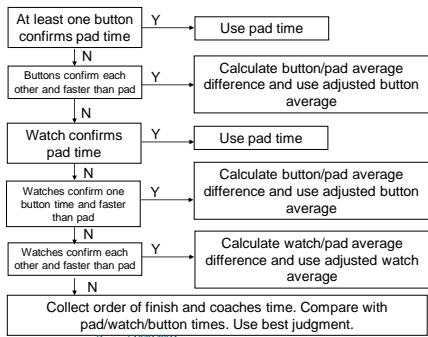
Average delay ~ 0.15 seconds



Time Verificaton (Colorado)



Time Verifcator (Daktronics)



Lane Timing Adjustment

- Daktronics button times and watch times need to be adjusted by “timing system difference”
 - Calculate average difference between valid pad and button (or watch) times in that heat
 - Hy-Tek can print out lane timing adjustment sheet
 - If less than 3 valid lanes, look at previous and next heats of same stroke
 - If previous and next heats still have less than 3 valid lanes, use watch time directly or apply 0.15 adjustment to Daktronics button to be consistent with Colorado
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Heat Malfunction Adjustment

- If automatic system subject to early or late start, need to adjust ALL times
 - For each valid lane (pad validated by button), calculate pad to average WATCH difference
 - Adjust all automatic and semi-automatic times by average WATCH-PAD times
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Documenting Official Time

- Obtain heat printout from console
- Check correct race#, event#, heat#
- Check that times available for all lanes which had swimmers
- Document any no-shows
- Document any DQ's (see next slide)
- Calculate official time. (may need to wait for watch times)
- Clearly identify official time with check mark and strike out invalid times
- Attach timing adjustment sheet if used
- Initial paperwork
- Pass paperwork to Hy-Tek when appropriate
- Hy-Tek may send paperwork back if discrepancies

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Handling DQ Slips

- Check DQ slip for correctness
 - Swimmer/Team Name
 - Event/Heat/Lane
 - Signed by referee
- If any discrepancies, send DQ back to referee
- Strike out times for swimmer
- Denote DQ alongside strikeout
- Attach DQ slip to back of printout, facing backwards – enables easy review later if required
- Console operator can advise of potential DQ's so that paperwork can be held back until DQ's arrive
- Often DQ's arrive after paperwork passed on and has to be recalled

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Working with Hy-Tek

- At setup, meet info downloaded from Hy-Tek to console
- Hy-Tek downloads meet results
- Often best to pass event paperwork over in one batch. Check for DQ's before passing on paperwork, although often DQ's will arrive later anyway
- Keep console turned on until Hy-Tek confirms that ALL meet info has been downloaded

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Working with the Referee, Starter, Timers, & Coaches

- Console operator needs to get console ready for next heat in a timely manner
- Request order of finish if doubt over time validation
- Obtain watch times from timers
- Obtain watch times from coaches
- If timing issues are consistently from one lane then watch timers in that lane and talk to them if necessary.
- Get referee to sign off on any unusual timing circumstances

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Debugging Issues

- Often something will go wrong and the problem needs to be fixed quickly
 - Pad not working
 - Button not working
 - Printer not working

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Worked Examples

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Summary

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Questions ?

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