

Photo-Based Timing For Timers

September 22, 2026

Presenter: Soren Larson

AUTO-TAGGED
TO BIB 836

S

Sydney Marcuzzi

5K Run/Walk

Female Age 24 Marietta



Chip Time
53:30.18

Female 20 - 29
20 of 23

Gender Place:
116

Split	Time	Pace
1.5	25:45.27	27:38

Photos





Today's Agenda

- Introduction to Photo-Based Timing
- Setting up RaceDay Mobile Photos
- Capturing Photos
- Integrating with RaceDay Scoring
- How to Promote and Offer Photo-Based Timing
- Q&A

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1.5

25:45.27

27:38

Photos





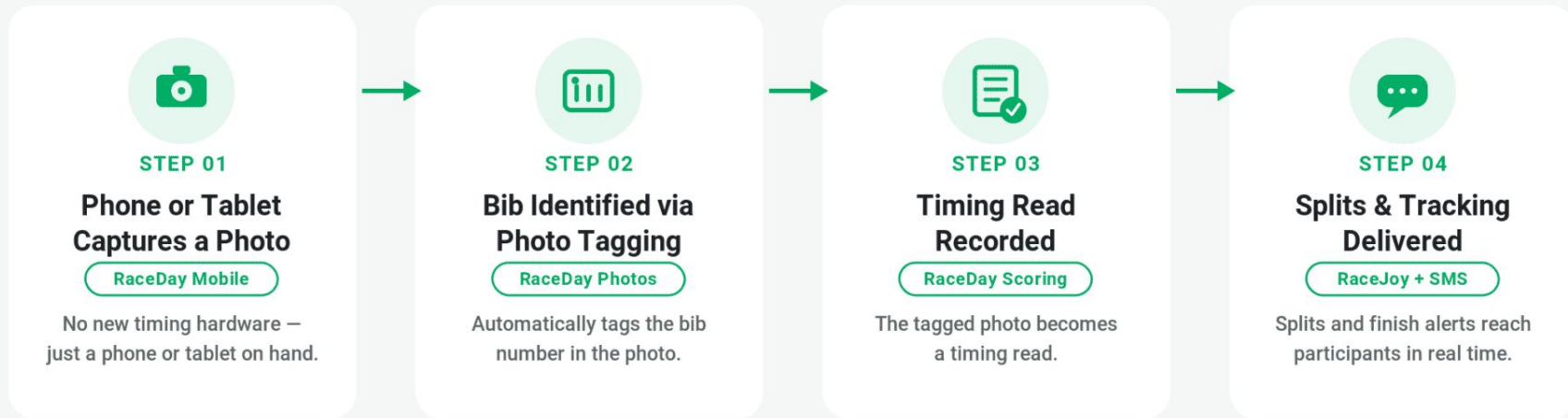
Introduction to **Photo-Based Timing**



- HOW IT WORKS

From Phone or Tablet to Finish Line Data

RaceDay Mobile, RaceDay Photos, RaceDay Scoring & RaceJoy — one integrated platform, connected automatically.

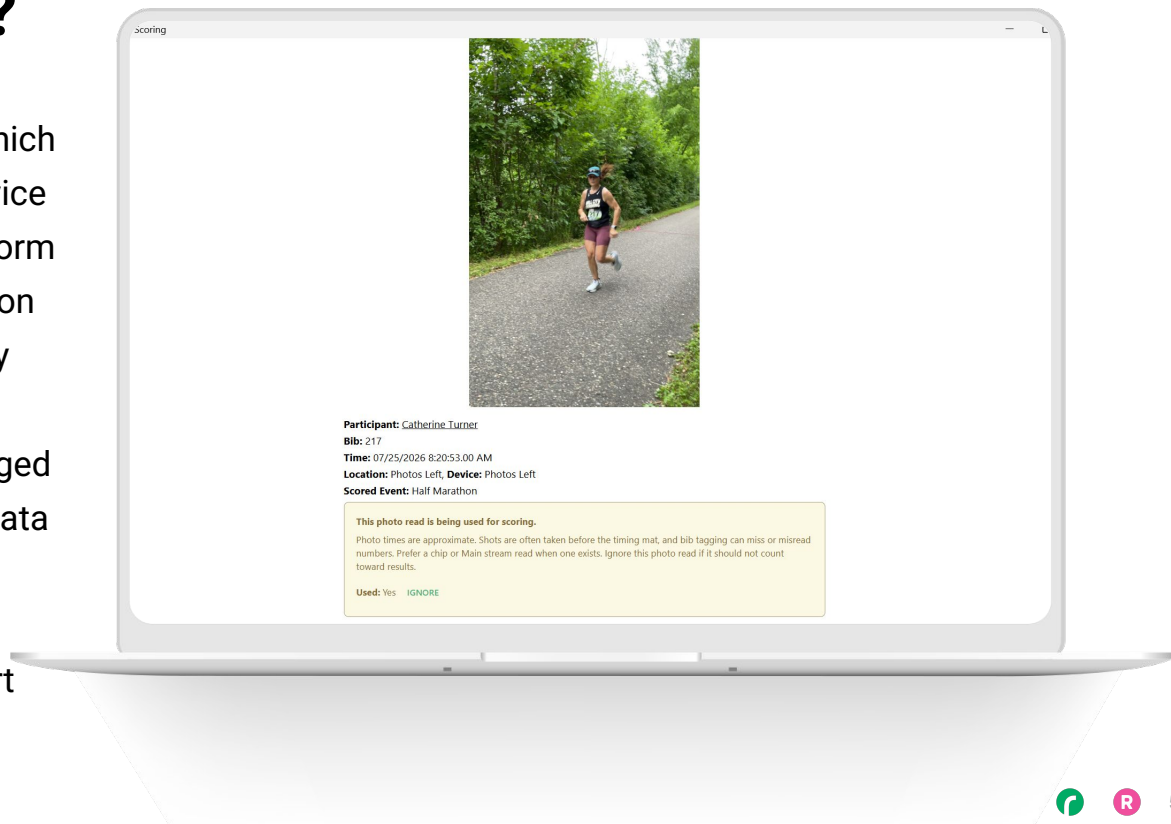


About 30 seconds, start to finish.

Chip (RFID) reads always take priority when both exist — photos fill the gaps.

What is Photo-Based Timing?

- Photos taken with **RaceDay Mobile** include what is called EXIF data, which contains a timestamp from the device
- RunSignup's **RaceDay Photos** platform tags photos based on bib recognition
- **RaceDay Scoring** can automatically receive this data as a single "read" which contains the bib number tagged and the timestamp from the EXIF data as if it were coming from timing hardware
- These reads can be used to support existing reads from hardware or as standalone split data





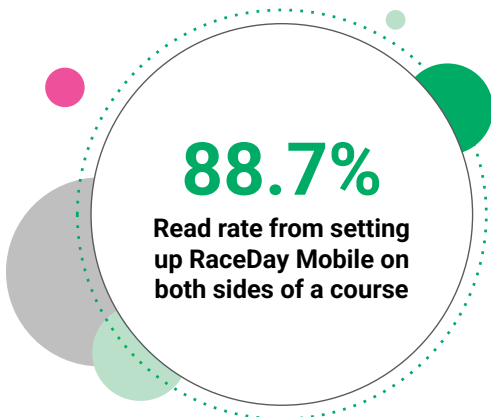
Does this replace Timing Hardware?

In short, **NO**.

In testing, properly deploying Photo-Based Timing can get read rates of 88.7% with devices on both sides of a course. This is useful for splits and for supplemental data, but it is nowhere near the 99.98% read rate of many systems out there.

Professional grade timing hardware is accurate to the hundredth of a second (passive RFID) or even three-thousandths of a second (active RFID), while photo based timing has a wide variance and “reads” that are rounded to the nearest second.

It’s worth noting that photo based reads are unreliable when it comes to order of finish as well - two people in the same photo would receive the same “read” timestamp regardless of where they are physically, for example.



88.7%

Read rate from setting
up RaceDay Mobile on
both sides of a course

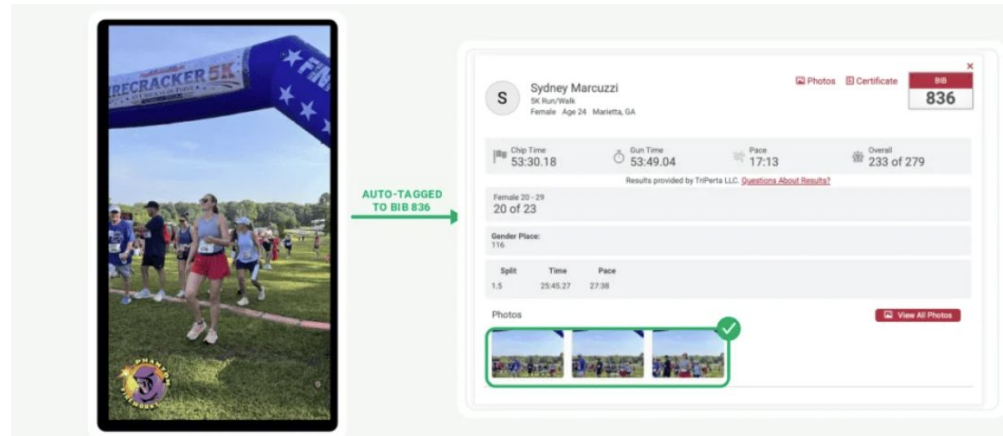
Why offer use it with Timing Hardware then?

Photo-based timing solves a number of common issues in the timing world:

- Equipment availability and scalability
- Ease of deployment to remote locations
- Ease of use for novice staff
- Context for missed chip reads

In addition to these benefits to the timer, it provides benefit to the two main audiences for their work:

- Sponsor or race activation for the **organizer**
- Downloadable/sharable photos for the **participant**

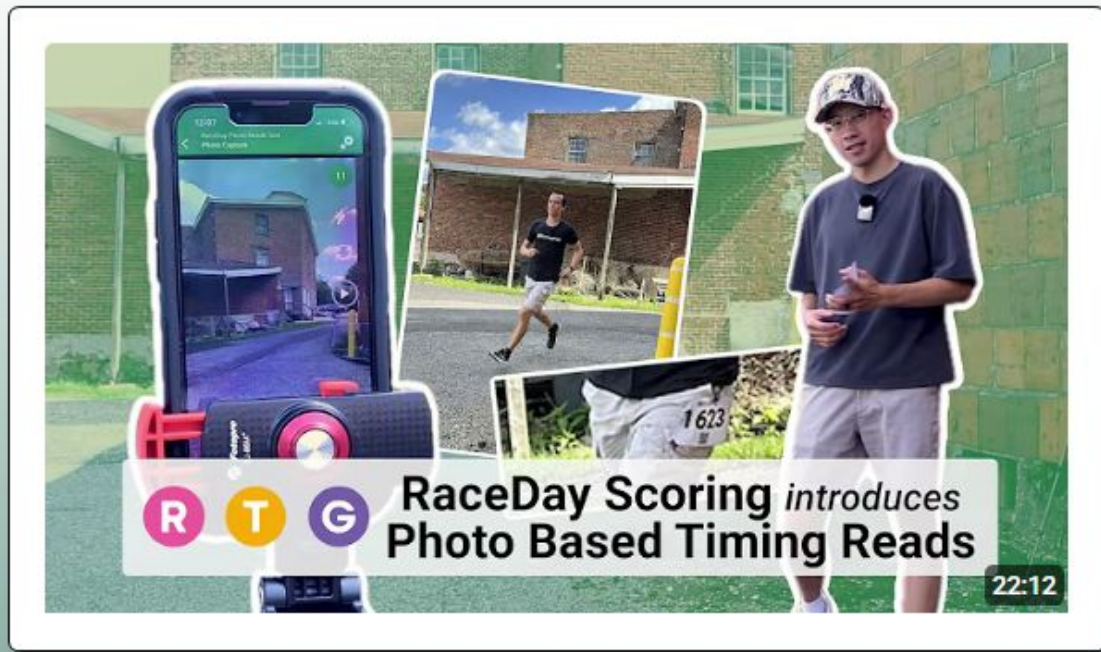




Further Viewing

Kevin and Andrew do a great demonstration of how this works - if you learn better from watching something in action (including a breakdown of the reads with RaceDay Scoring) this is a must-see video:

<https://www.youtube.com/watch?v=LB-NvGkJ2-s>





Setting up RaceDay Photos

... timing from race photos you may already be taking, without any extra timing hardware.

... enough for official timing on their own. Photos are often taken before a runner crosses the line, and

... am so chip reads take priority: when your chip system already has a read for a participant, the photo re

... d when there is no Main stream read to fill the gap. Only assign as a **Main Stream** if you understand these

get timing data from photos?

Runner Left

Timing Location

These Timing Locations

Photos Left X

These Timing Locations

Select...

es

mm/dd/yyyy  SET TO RACE DATE

ADD ANOTHER RANGE



Setting up RaceDay Photos

We won't go into too much detail on the platform (RunSignup) side of the photos today, but it is recommended that you get familiar with RaceDay Photos by [watching this webinar](#).





Setting up RaceDay Photos

Upload of photos, either manually or using RaceDay Mobile, requires the user to have at least **Photo Access** to the race's Dashboard.

You can grant Photo Access by going to **Secure Access/Info Sharing -> Add Access** and select only Photos. Make sure to use the email address associated with the added user's RunSignup account

Page Access

Enter the email address of the person who should have access to this race. Then, select the pages you want to give access to. Please note that these settings will be in addition to any other settings the person may have (e.g. a race director will always have full access).

Email Address *

First Name *

Last Name *

Select the pages this person should see.

Simple Advanced

☐ What's New

☒ Dashboard

☐ Race

☐ Website V2

☐ RaceDay Tools

☐ Participants

☐ Reports

☐ Email Marketing V2

☐ Email Marketing (Legacy)

☐ Promotion

☐ Text Messaging (BETA)

☐ AI Chatbot V2

☐ CRM

☐ CRM V2 (Admin Only)

☐ Donations

☐ Fundraising

☐ Store

☐ Financial

☐ Volunteers

☐ Sponsors

☒ Photos

☐ Multi-Race Registration

☐ Admin

☐ Thornhill Records

Select All Clear All

Add Access Cancel



Setting up RaceDay Photos

Reads come into RaceDay Scoring from a stream from the RunSignup platform (more on that later) based on the name of the album photos are stored in.

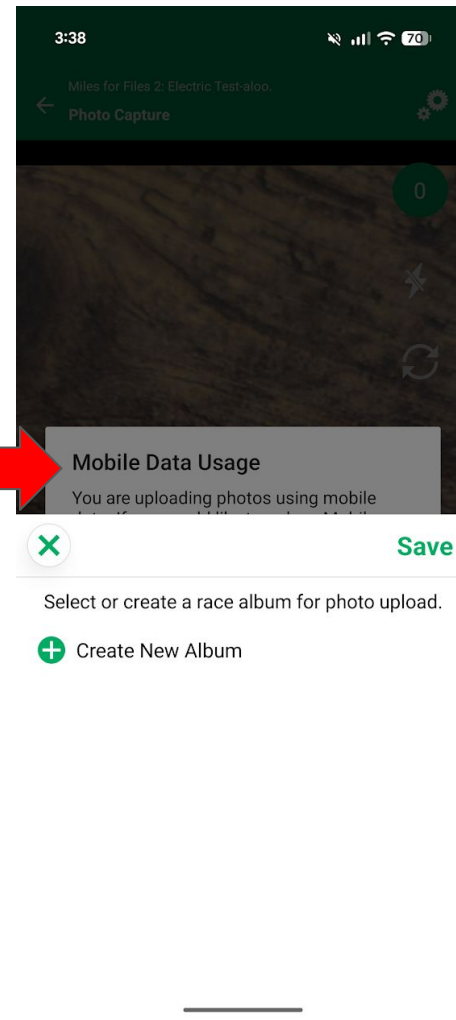
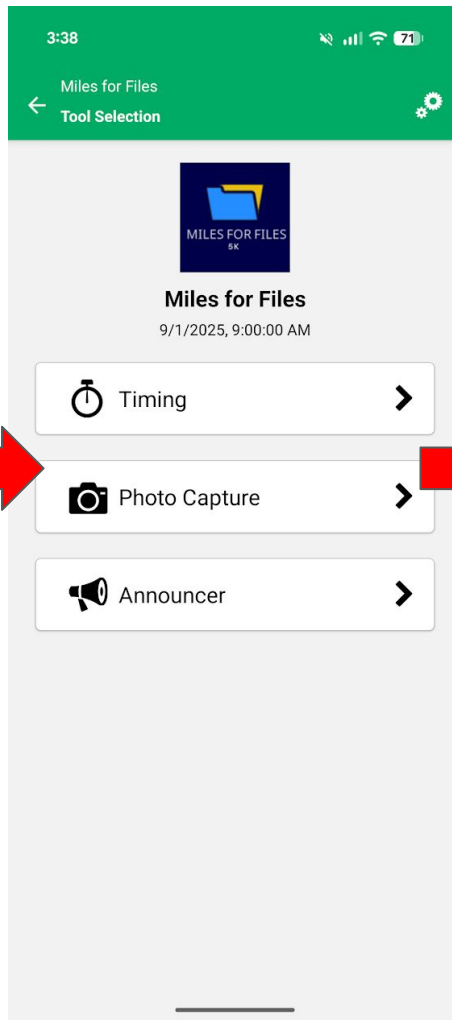
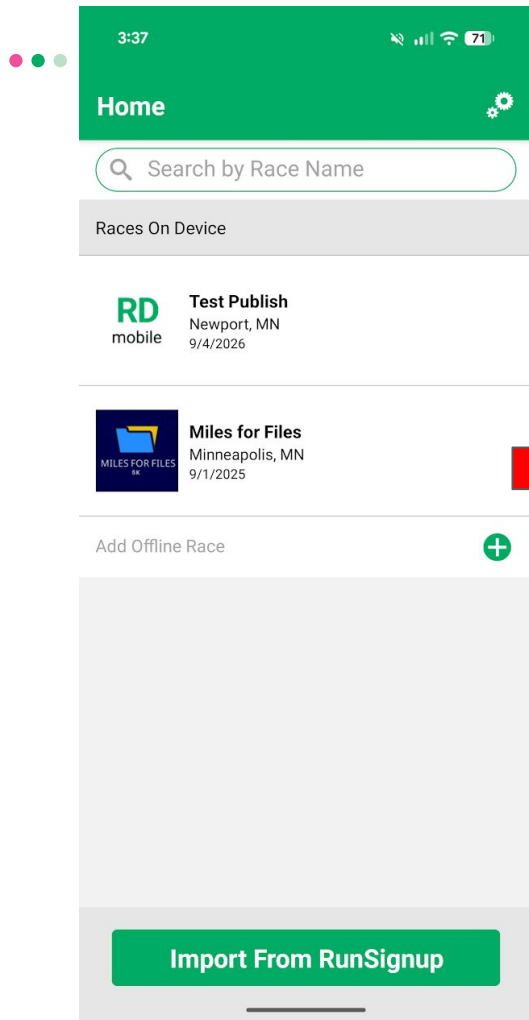
It is a best practice to name these something both informative to yourself for timing purposes and useful for participants looking at the photo albums (if public).

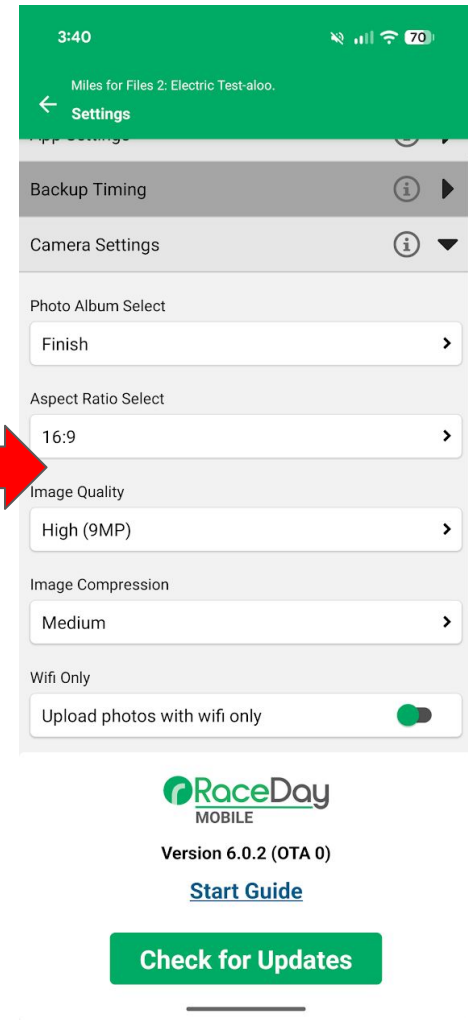
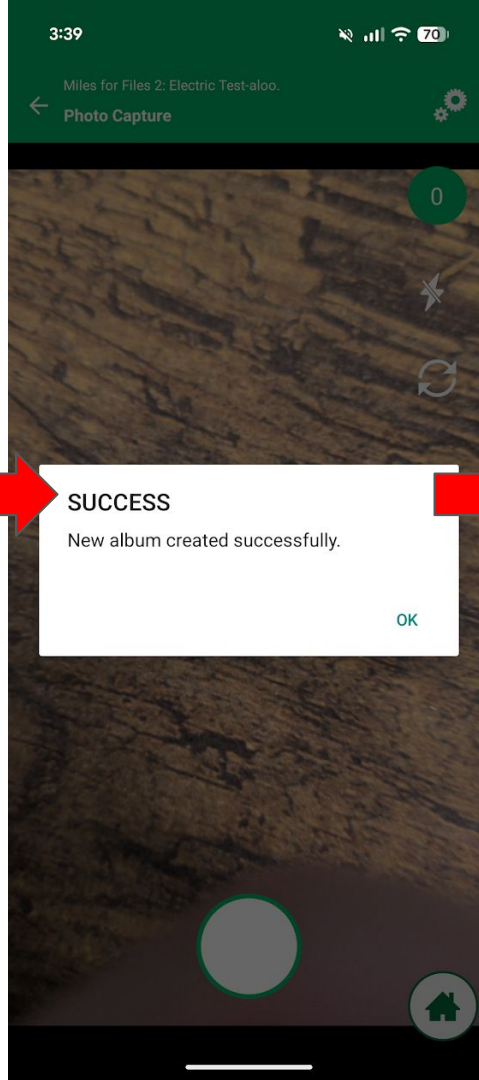
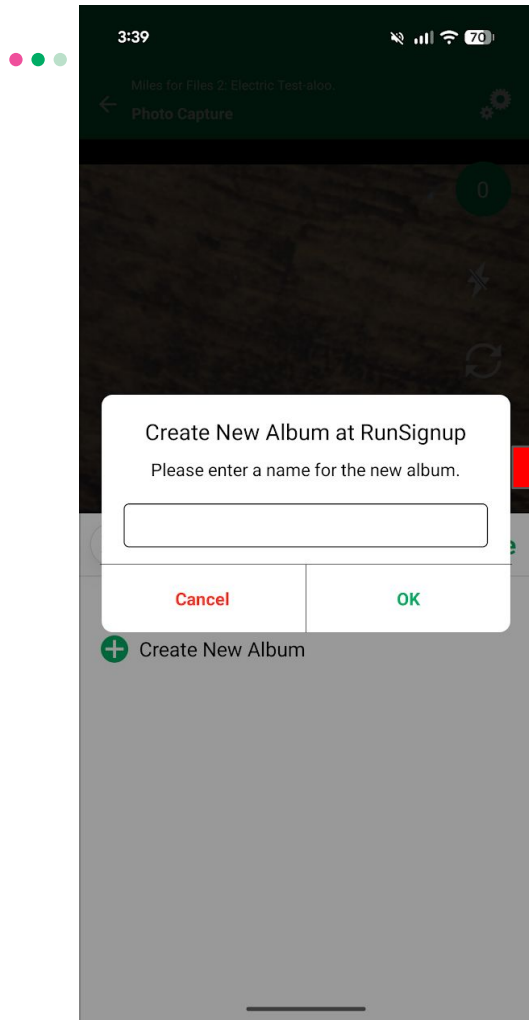
Think something like “5 Mile (Left)” rather than “Avery’s Phone”.

The screenshot shows the 'RaceDay Scoring' web application. The top navigation bar includes a 'Select a Race' dropdown, a 'RaceJoy' button, and several status indicators for 'Reads', 'Auto-Saves', 'RaceDay Hub', 'Data Checks', and 'Notifications: 0'. A 'GET HELP' link and a settings gear icon are also present.

The main content area is titled 'How does this stream get timing data from photos?' and contains the following sections:

- Photo Album:** A dropdown menu showing 'Runner Left'.
- Assign this Stream to a Timing Location:** Two dropdown menus. The first is labeled 'Assign as a **Main Stream** for these Timing Locations' and shows 'Photos Left'. The second is labeled 'Assign as a **Backup Stream** for these Timing Locations' and shows 'Select...'.
- Adjust Stream Read Dates and Times:** A section with two options: 'Change All Read Dates To' (with a date input field showing 'mm/dd/yyyy' and a 'SET TO RACE DATE' button) and 'Adjust Range of Reads to another Date/Time' (with an 'ADD ANOTHER RANGE' button).





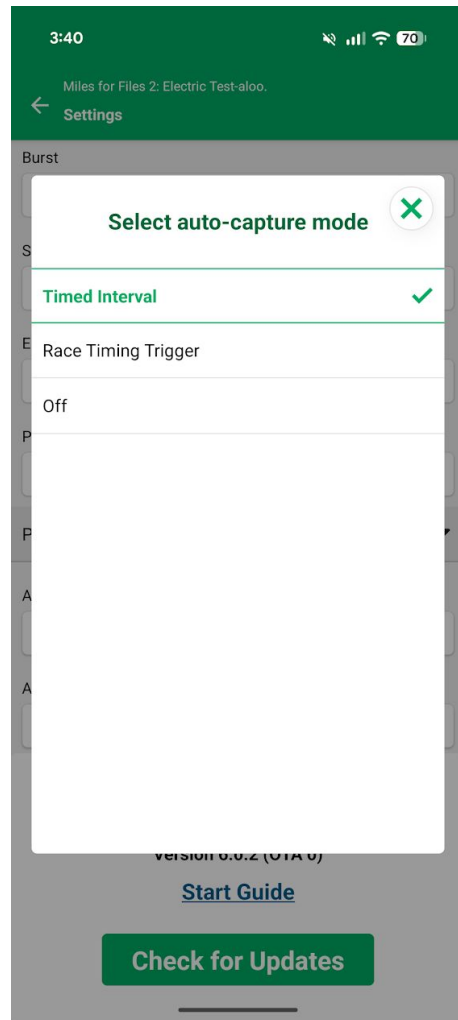


Setting up RaceDay Photos

Photos can be captured in RaceDay Mobile in one of three ways currently:

- **Timed Interval** - photos are captured every X seconds for Y hours. This is the most common method for Photo-Based Timing
- **Race Timing Trigger** - captures a photo via an integration with RaceDay Scoring when a bib is read. This is not as helpful, as it won't necessarily capture a participant missed by the hardware
- **Manually** - requires someone to tap to capture a photo or use a bluetooth clicker

Human Form Detection will soon be available, which will use less data and take less “empty” photos

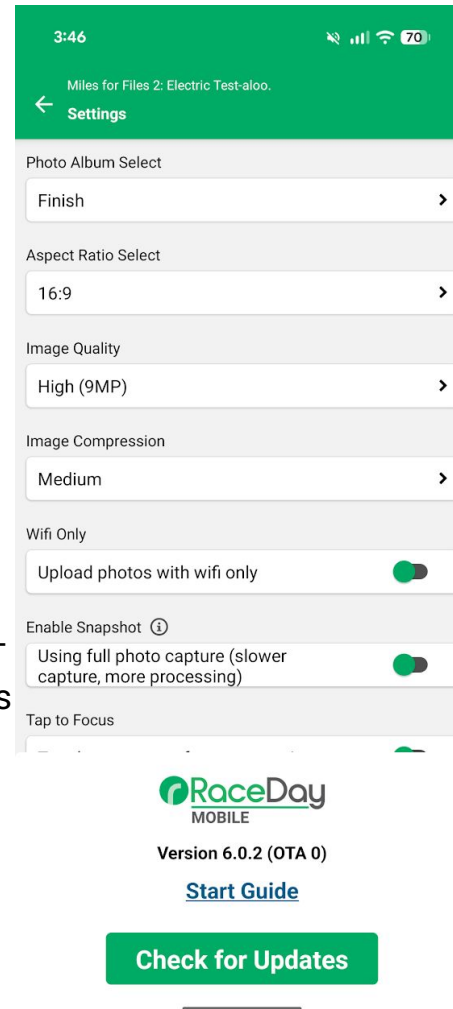




RaceDay Mobile Settings

These are not all of the settings available, but the main ones to focus on:

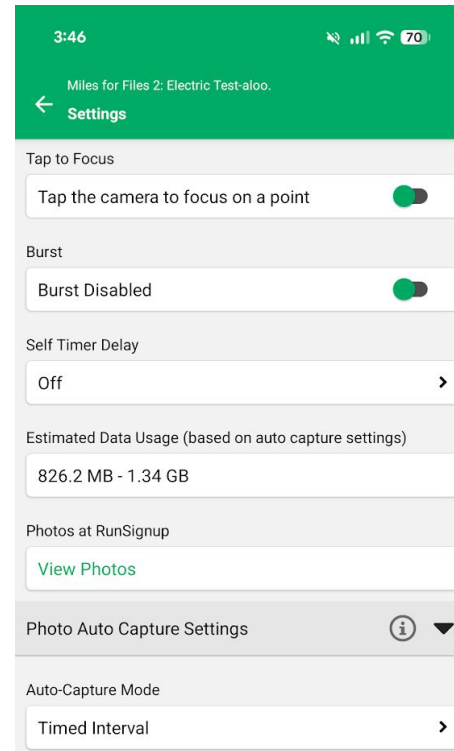
- **Photo Album Select** - Allows users to move between albums or create new albums. The selected album will be the destination of photo uploads
- **Image Quality** - Size/quality of the photo. This will affect how *good* a photo is, but also how quickly it will upload
- **Image Compression** - image compression reduces the file size - the more compressed, the smaller the file but the more quality is lost
- **Wifi Only** - Whether or not photos are uploaded only when the device is connected to a wireless network
- **Enable Snapshot** - when enabled, photos are captured faster. When disabled, full photo capture processes the image completely (for a sharper image) but can be slower





RaceDay Mobile Settings

- **Tap the camera to focus on a point** - focuses on a selected (tapped) point. Generally, leave this **OFF** so that bibs do not become blurred and harder to tag
- **Burst** - uses snapshot to capture multiple images in one go
- **Self Timer Delay** - think “timer” for taking a photo. Not commonly used.
- **Estimated Data Usage** - If auto-capture mode is off, this will estimate the data usage based on quality and compression settings for 100 photos. If auto-capture mode is set to **Timed Interval** this will estimate the entire usage based on quality and compression based on the interval and duration selected



Version 6.0.2 (OTA 0)

[Start Guide](#)

[Check for Updates](#)





Capturing Photos





Setting up Devices

- Setting devices on tripods is the best option for consistent framing of photos
- Set devices up on **BOTH** sides of the chute or course
 - Single-sided implementation only captured **~75% of participants**
 - Having a device on both sides captured **88.7%** of participants
- Stage equipment somewhere that either is near a water stop, course marshal, or other staff
 - Helpful for starting/stopping photos and troubleshooting
 - Timing hardware doesn't "walk away" but tablets and phones do





Setting up Devices

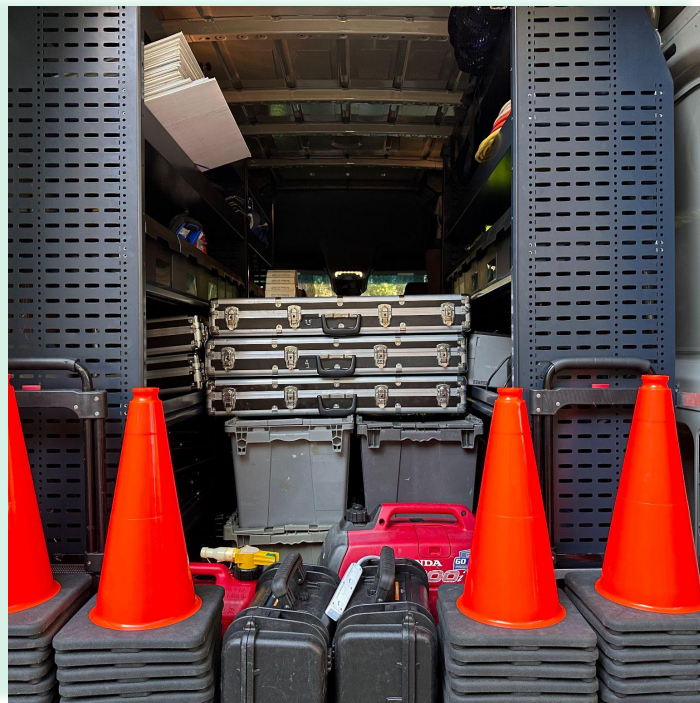
- **MAKE SURE TAP TO FOCUS IS OFF** - the photo on the right had it on, and it resulted in blurry bibs which are tagged less reliably
- When in doubt, go for an angle that capture more of the course - more opportunities to capture participants
- Capture a test photo from both sides and check them on RunSignup - how is the framing?
- If photos are public, make sure the watermark looks good with your photos. If it's too big, use a hidden sponsor logo instead.
- Consider having signage letting people know a photo spot is coming up
- Have a plan for beginning and ending the auto-capture window, whether with staff or using an app like AnyDesk





Setting up Devices

- Consider using cones to protect the tripods and/or help frame the shot
- If there is branded signage or a split marker, try to include that in the photo
 - Remember, common bibs can be untagged (e.g. “5” from “5 Mile”)
- Have a plan for data
 - Make sure your uploads don't hurt your company's data plan
 - Trust the estimated data usage from the app!
- Stagger your devices
 - Set them up to alternate when a photo is captured
- If photos become “stuck” in the app, force close it and reopen the app



Best Practices

- Make sure your numbers are easily visible!
- 4 digit bib ranges are best, max of 5 digits
- No Letters (Except F in front)
- No Symbols (except a dash before last digit)
- Good “Kerning” helps - just don’t ask us to define it (kidding, it’s the spacing between characters)
- If you’re pulling photos, the url format is:

[https://runsignup.com/Race/Photos/\[raceID\]/\[set\]/\[bib\]](https://runsignup.com/Race/Photos/[raceID]/[set]/[bib])





Integrating with RaceDay Scoring

RaceJoy Reads Auto-Saves RaceDay

... timing from race photos you may already be taking, without any extra timing hardware.

... enough for official timing on their own. Photos are often taken before a runner crosses the line, and

... am so chip reads take priority: when your chip system already has a read for a participant, the photo read

... d when there is no Main stream read to fill the gap. Only assign as a **Main Stream** if you understand these

Do you want to get timing data from photos?

Runner Left

Timing Location

These Timing Locations Photos Left X

These Timing Locations Select...

es

mm/dd/yyyy SET TO RACE DATE

ADD ANOTHER RANGE



Setting up a Photo Stream in RaceDay Scoring

- Photo-Based Timing “reads” come into RaceDay Scoring on a stream like any other data source
- Go to **Streams** -> **Add Stream** -> **Stream Type** -> **RaceDay Photos**
- Instead of selecting a file location, or point/hardware/location name, data comes in based on the album name on RunSignup. Make sure you have your albums created ahead of time!
- Multiple streams can be mapped to the same location - it is a best practice to have one album per device in case something gets out of sync
- **BE THE FIRST PERSON YOU KNOW TO READ THE YELLOW BOX TEXT!**

The screenshot shows a form titled "Stream Information" with three input fields:

- Stream Name:** A text box containing the value "Photos Left".
- Description:** A larger text box containing the placeholder text "Optional description of the Stream." and a small edit icon (pencil) at the bottom right.
- Stream Type:** A dropdown menu showing "RaceDay Photos (Beta)" with a downward arrow.



Setting up a Photo Stream in RaceDay Scoring

- If the location is a split where only Photo-Based Timing is deployed, set both devices as Main Streams
- Be careful if using as Photo-Based Timing as a Backup Stream at a location
 - Make sure to keep an eye on the Default Data Check for “Backup Time Selected”
 - Consider using an alternate setup if using Photo-Based Timing at the Finish (more on the next slide)

The screenshot displays the configuration interface for a Photo Stream. At the top, a yellow header bar asks "How does this stream get timing data from photos?". Below this, the "Photo Album" is set to "Runner Left". The "Assign this Stream to a Timing Location" section has two dropdown menus, both currently showing "Select...". The "Adjust Stream Read Dates and Times" section includes a date picker set to "mm/dd/yyyy" with a "SET TO RACE DATE" link, and a button labeled "ADD ANOTHER RANGE".

How does this stream get timing data from photos?

Photo Album: Runner Left

Assign this Stream to a Timing Location

Assign as a **Main Stream** for these Timing Locations: Select...

Assign as a **Backup Stream** for these Timing Locations: Select...

Adjust Stream Read Dates and Times

Change All Read Dates To: mm/dd/yyyy [SET TO RACE DATE](#)

Adjust Range of Reads to another Date/Time: [ADD ANOTHER RANGE](#)



Setting up a Photo Stream in RaceDay Scoring

- If the location is a split where only Photo-Based Timing is deployed, set both devices as Main Streams
- Be careful if using as Photo-Based Timing as a Backup Stream at a location
 - Make sure to keep an eye on the Default Data Check for “Backup Time Selected”
 - Consider using an alternate setup if using Photo-Based Timing at the Finish (more on the next slide)

The screenshot displays the 'How does this stream get timing data from photos?' section of the RaceDay Scoring interface. It includes a dropdown menu for 'Photo Album' set to 'Runner Left', a section for assigning the stream to a timing location with 'Main Stream' and 'Backup Stream' options, and a section for adjusting stream read dates and times with a date picker and a 'SET TO RACE DATE' button.

How does this stream get timing data from photos?

Photo Album: Runner Left

Assign this Stream to a Timing Location

Assign as a **Main Stream** for these Timing Locations: Select...

Assign as a **Backup Stream** for these Timing Locations: Select...

Adjust Stream Read Dates and Times

Change All Read Dates To: mm/dd/yyyy SET TO RACE DATE

Adjust Range of Reads to another Date/Time: ADD ANOTHER RANGE



Using Photo-Based Timing At the Finish

- Consider a separate location (“Photos”) that exists simply to associate photo reads with the Race
 - This prevents incorrectly tagged bib (101 instead of 1101, for example) from generating a used read
- Write a data check similar to the one below to identify anyone without a finish read but with a tagged photo read after a given time

The screenshot displays a search filter interface with two main sections: "Standard Participant Search Filters" and "Raw Read Participant Search Filters".

Standard Participant Search Filters

- Field:** A dropdown menu with "Did Not Finish" selected.
- Operation:** A dropdown menu with "==" (Is) selected.
- Value:** A text input field with "Yes" entered.
- Buttons:** "ADD FILTER" (green) and a close button (X).

Raw Read Participant Search Filters

- Field:** A dropdown menu with "Location" selected.
- Operation:** A dropdown menu with "==" (Is) selected.
- Value:** A text input field with "Photo Example" entered.
- Field:** A dropdown menu with "Timestamp" selected.
- Operation:** A dropdown menu with ">= (Is Greater Than Or Equal To)" selected.
- Date:** A date input field with "07/25/2026" entered.
- Time of Day (HH:MM:SS.sss):** A time input field with "07:15:00 AM" entered.
- Buttons:** "ADD FILTER" (green), "SET TO CURRENT TIME" (green), and "CLEAR" (red).

Photo-Based Timing Reads

RaceDay Scoring													
Tony The Tiger	4815	4815	09/04/2026	11:24:55.00	No	Pre-gun start.	Split	5K	Photo	Yes	Yes	☐	
Tony The Tiger	4815	4815	09/04/2026	11:24:57.00	No	Pre-gun start.	Split	5K	Device: 2 Mile - Photo	Yes	Yes	☐	
Tom Pitcher	4248	4248	09/04/2026	11:25:03.00	No	Pre-gun start.	Split	5K	Device: 2 Mile - Photo			☐	
Tony The Tiger	4815	4815	09/04/2026	12:17:02.00	No	Manually Ignored.	Split	5K	Device: 2 Mile - Photo	Yes	Yes	☐	
Michael Thompson	1623	1623	09/04/2026	12:18:29.00	Yes		Split	5K	Device: 2 Mile - Photo			☐	
Tom Laughlin	3000	3000	09/04/2026	12:20:37.00	Yes		Split	5K	Device: 2 Mile - Photo			☐	
Tom Laughlin	3000	3000	09/04/2026	12:20:38.00	No	Occurrence not defined.	Split	5K	Device: 2 Mile - Photo			☐	
Steven Curry	1516	1516	09/04/2026	12:20:38.00	Yes		Split	5K	Device: 2 Mile - Photo	Yes		☐	
Tony The Tiger	4815	4815	09/04/2026	12:25:22.00	No	Manually Ignored.	Split	5K	Device: 2 Mile - Photo	Yes	Yes	☐	
Tony The Tiger	4815	4815	09/04/2026	12:25:23.00	No	Manually Ignored.	Split	5K	Device: 2 Mile - Photo	Yes	Yes	☐	

Photo: Bib 3000, Tom Laughlin



Participant: [Tom Laughlin](#)

Bib: 3000

Gender: M, Age: 40

Time: 09/04/2026 12:20:37.00 PM

Location: Split, Device: 2 Mile - Photo

Scored Event: 5K



Photo-Based Timing Reads

- **Participant** - name and information (bib, gender, age) are shown
- **Time** - from the photo data is displayed
- **Location** - location in RaceDay Scoring
- **Device** - Album name
- **Scored Event** - scored event associated with the tagged participant
- **Used** - whether or not the photo read is used for scoring - if “Yes” clicking “Ignore” will cause the read to be ignored

Photos with multiple bibs tagged in them will results in multiple “reads” that have the same timestamp



Participant: [Tom Laughlin](#)

Bib: 3000

Gender: M, **Age:** 40

Time: 09/04/2026 12:20:37.00 PM

Location: Split, **Device:** 2 Mile - Photo

Scored Event: 5K

This photo read is being used for scoring.

Photo times are approximate. Shots are often taken before the timing mat, and bib tagging can miss or misread numbers. Prefer a chip or Main stream read when one exists. Ignore this photo read if it should not count toward results.

Used: Yes [IGNORE](#)



Promoting **Photo-Based Timing**



• NEW FROM RUNSIGNUP

What Photo-Based Timing Delivers

A low-cost timing upgrade every race can afford.



01 / SPLITS

Real-Time Mile Splits

Capture progress throughout the course—not just at the finish line.



02 / BACKUP

Backup for RFID Finishes

Add a visual record that helps confirm results when a chip read is missed.



03 / TRACKING

Live Participant Tracking

Power text alerts and RaceJoy updates with more course checkpoints.



04 / PHOTOS

Unlimited Race Photos

Capture every runner at every photo-based timing checkpoint.



No new timing hardware. Minimal cost.

Just the phone or tablet already on hand.

[MORE RACE DATA](#)



Promoting Photo-Based Timing

- Consider your costs - data, devices, and staffing all cost money that goes towards deployment
- Position Photo-Based Timing as an added benefit of a split (which you charge for)
- If you don't value it, they won't value it
- **Photos are a high-value deliverable!** Photos provide a great sponsor opportunity to offset what you are charging the organizer
- Show the value after the race with the photo views, RaceJoy spectators, and text message delivered by these deployments

The diagram illustrates the process of photo-based timing. On the left, a photo is captured at the finish line of a 'RECRACKER 5K' race, showing a runner crossing the line. A green arrow labeled 'AUTO-TAGGED TO BIB 836' points from the photo to the results page on the right. The results page for Sydney Marcuzzi (BIB 836) displays her race statistics: Chip Time 53:30.18, Gun Time 53:49.04, Pace 17:13, and Overall position 233 of 279. It also shows her gender place (116) and a split time (1.5, 25:45.27, 27:38). A 'Photos' section at the bottom shows three photo thumbnails, with the first one marked with a green checkmark. A green banner at the bottom states: 'Automatically Tagged. Instantly Delivered. No manual matching — every photo becomes part of the runner's official results.'

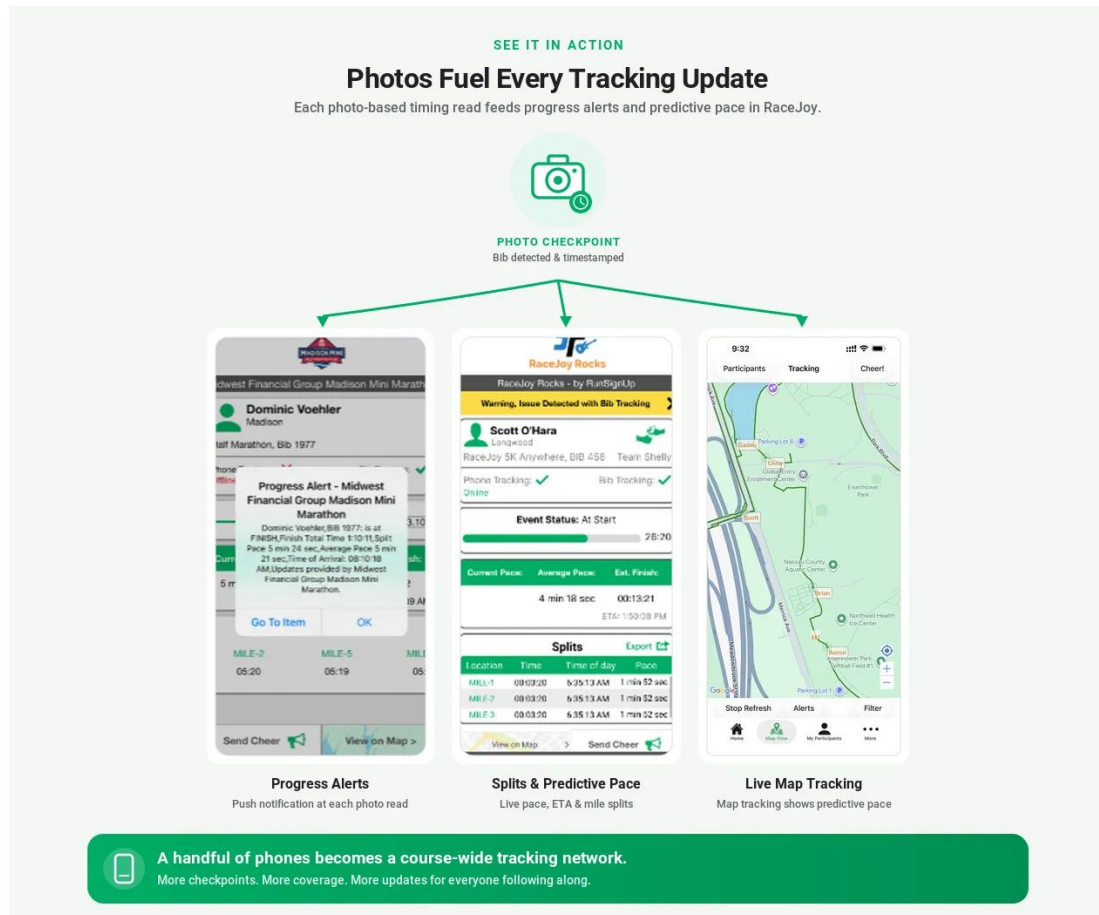
Captured at the finish line

Results page - Photos section

Automatically Tagged. Instantly Delivered.
No manual matching — every photo becomes part of the runner's official results.

RaceDay Photos and RaceJoy

- Predictive Pace in RaceJoy requires at least 2 splits for a Half Marathon and at least 3+ for a Marathon or longer
- Photo-Based Timing can be used to supplement existing timing hardware to improve the tracking experience - more timing points = better spectator experience
- Larger and longer races have more aid stations and course marshals, providing more opportunities for deployment





Resources

- [Photo-Based Timing Reads for Timers](#)
- [Photo-Based Live Tracking](#)
- [Field Test](#)
- [Segments in RaceDay Scoring](#)
- [RaceDay Photos Introduction](#)
- [Manage Your Photos in Bulk](#)



Questions?





Thursday, September 24 at 2pm ET

Overview of Technology

Positions timers as the providers of the technology.

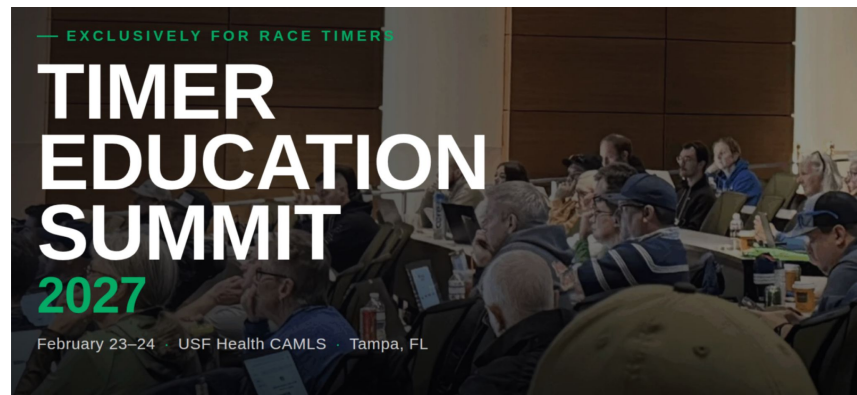
[illegible]



Join Us 2027 Timer Summit

February 23-24, 2027 in Tampa, Florida

- Introductory, Advanced Tracks & General Sessions
- Workshop Approach
- All 4 Timer Certification Courses
- Timer Networking
- One-on-One Training



Latest Technology
Advancements Showcased

Sign Up Now →



Workshop Wednesdays

New link for signing up:

<https://calendly.com/rsu-race-day-tools/workshop-wednesday>

- Participants can bring their own requested topics, questions, or scenarios
- Directed focus will vary from week to week based on the season, recent releases to the software, and Timer Tip Tuesday topics
- Up to 12 people per workshop
 - 10am or 12pm EASTERN TIME
- **Workshops will not be recorded**



Thank You For Joining Us Today

For more information, visit us online at runsignup.com.

