



## INTRODUCTION

Welcome to Relay Tracker version 2.2 for Ragnar 2011. By using the tracker you will be able to easily record your exchange times and sync data between devices.

### Features:

- Start and End time projections for each leg based on your runner's data.
- The application does not need to be running all the time. It can be shut down and restarted without losing your timing data
- Track your team. Provide friends and family the link to track your race progress in real time.
- Email your data to teammates, race directors or yourself.
- Keeps track of leg times and total times.
- Sync data between multiple devices

This document will show you the steps required to set up Relay Tracker before your big race, how to run the race, and answer common questions that may come while using the application. We will start with a quick start guide for those who want less instruction; detailed information will follow the quick start guide.



## **Quick Start Guide:**

The quick start guide is just the basics of setting up your devices to track your relay team! The quick start assumes you will use 2 devices and share data. If you will only have one device you can just follow the Master device instructions.

### **Master Device:**

1. Select your race.
2. Edit your Runner List.
3. Multi Device Set up – The master will create and save the team key. Enter or check the legs the master device will be responsible for tracking, usually half the legs.
4. Race Set Up –
  - a. Enter the Team Name and ID
  - b. Enter the Team Start Time. This time will use the current time zone on your phone. So, if you will be racing in a different time zone make the adjustment on entry.
  - c. Tap Leg 1 to enter runner and pace data. You will check the runner from the runner list and enter the pace. If you have entered a full rotation and which to copy the data forward begin on the first empty leg, usually 13.
  - d. Send Data – As the master device you will need to send the data to the server so the slave devices can retrieve the set up data.

### **Slave Device:**

1. Select your race.
2. Multi Device Set Up – Enter the team key provided from the master device. Enter or check the legs the slave device will be responsible for tracking, usually half the legs but it can be 0 legs if just viewing data.
3. Race Set Up –
  - a. Sync Data – The data that was set up and sent by the master device will be retrieved and populate the slave device. You will see the team name, id, etc when Syncing is completed.

### **Running the Race:**

1. The device responsible for tracking leg 1 will begin the race.
2. Press Exchange Made when an exchange is to be recorded. Data will be automatically sent to the server, no need to do a Sync to send data.
3. Undo an Exchange made in error.
4. Sync Legs to pull in data recorded by another device.
5. View Leg Details to see estimated times for future runners.



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## Full Documentation

### Start Relay Tracker

Begin by tapping the Relay Tracker logo on your iPhone application menu. The name under the logo will change depending upon the race you are running but the logo will stay the same. Once the Relay Track is started you will see the menu screen below.



### The Main Menu choices are:

**Select Race:** This will allow you to choose the Ragnar 2011 race you will be running.

**Edit Runners:** This option will allow you to add and delete from your list of runners. Each list is unique from race to race and does not copy over.

**Multi-device Set Up:** If your team will have multiple devices tracking the race you will need to set up each device to be able to share data. You will need internet access to share data.

**Set Up Race:** Before your team can begin tracking you must set up the race. Your application is pre-loaded with all the race leg data but you must add the runners and their paces.

**Time Race:** After the race set up is complete your team is ready to run the race. This option is where you will record exchanges, view predicted start and end times and leg durations. When legs have been completed you will be able to see if your team is ahead or behind it's expected pace. Additionally, when the exchanges are recorded the application sends a message with your location to RunningEscapes.com where race officials and friends and family can track your progress.

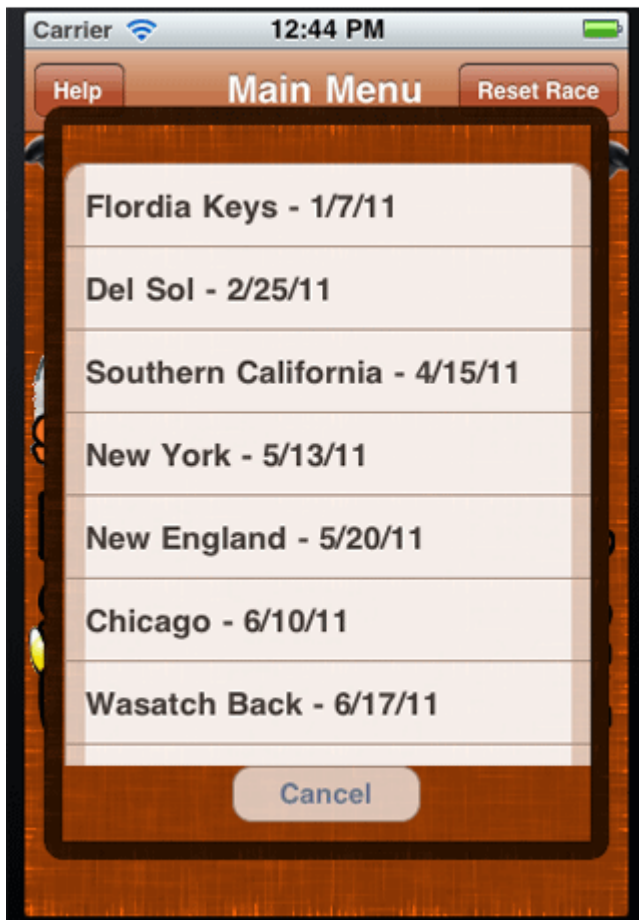


**Email Race Data:** This option will allow you to send an email with all the race data. You can email during the race or at the completion.

**Title Bar Options:** All screen will also have commands on the top menu bar. This is where you have the back button that will return you to this Main Menu. For the Main Menu, the “Reset Race” button appears here and hitting it will allow you to completely reset the race and start over.

### SWITCHING RACES

To change races tap the Race name button. The screen will automatically close after tapping a race. The race name will be changed on the main menu at the top of the screen. You will see the selected race name on all the screens.



### Master and Slave devices

Each team should have one device that is in charge of setting up the data (entering the runners and paces). Normally the Master will track half the legs and the Slave will track the other half of the race legs. Only the master will enter the runner information. If you intend to only have one device tracking your race you will follow



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the master instructions only. You can also have devices enabled that will not actually record any data but will receive data. This would be the case if you have a friend who wants all the current data.

## Setting up the Master Device

The following instructions will detail the normal steps you will go through when running a race. Additionally, at the end, a set of common problems that you might encounter will be presented with steps walking you through solving that problem.



### Step 1: Edit Runners

When you first enter this screen it will be empty and look like the image below.

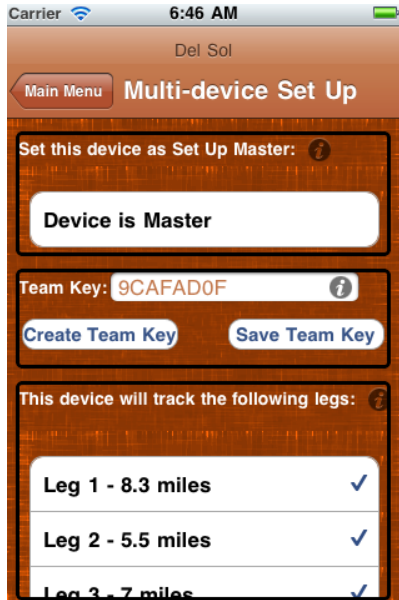
#### Adding Runners:

Enter the runners name and tap the “Add Runner” button. The runner will be added to the bottom of the runner list.

**Deleting a Runner:** To delete a runner swipe from left to right. The Delete button will appear, tap to confirm the deletion of the runner.

Once you have all your runners you can exit to the main menu by tapping the “Main Menu” button in the Title Bar, at the top left.

You do not have to worry about having the runners in the correct order at this point; that will be handled later. This is just a list from which you will choose.



## Step 2: Multi-device Set Up

If you want to share data between multiple devices you will need to set up each device. You can share data between iPhones/iTouch and Android phones. If you are not sharing data you can skip this section. Additional devices can be used to track legs and share data or just receive team data.

**\*\*\*Device Time\*\*\* : Verify the actual time on all devices responsible for timing is the same before you start. This is very important when using and iTouch!!**

**Master Device:** Only one device should be set to be the master. Master devices are in charge of ALL set up data. By default a device is set to be a master. To

change just tap the line "Device is Master" and it will toggle to "Device is NOT Master". If you have only one device it should be the master.

**Team Key:** The team key is shared between devices. All devices that wish to share team data must enter the same team key. **The Team Key IS case sensitive.** While you can make up your own team key it needs to be unique or you risk sharing data with other teams. We have no way of verifying if the team key is unique. It is therefore, a good idea to use the 'Create Team Key' button. This button will generate a Team Key and display it in the Team Key box. Ideally, the master would generate a key and then tell everyone else the team key to enter.

\*\* Don't forget to 'Save Team Key' before leaving the screen.

**Responsible Legs:** In the bottom section that list the race legs you will need to check the leg if the device is responsible for the timing of that leg. So, if you have a traditional team the device in van 1 would track legs 1 -6, 13-18, 25- 30 while the device in Van 2 would check to track legs 7-12, 19, 24 and 31 -36. If you are a specator just tracking the legs you would leave them all unchecked.



### Step 3: Set Up Race (Master Device)

Carrier 6:47 AM  
Del Sol  
Main Menu **Set Up Race** Send Data  
Race Information  
Team Name: null  
Team Id: null  
Start Time: 5:00 AM  
Race Legs  
Leg 1 - 8.3 miles ✓  
Leg 2 - 5.5 miles ✓  
Leg 3 - 7 miles ✓  
Leg 4 - 6.5 miles

Next we need to set up which runner will run each leg and the pace you think they will run, as well as team name, team id and start time. Begin by tapping the “Set Up Race” button on the Main Menu. This will bring up the main Set Up Race page shown below:

**Team Name and Team Id:** Tap the “Team Name” or “Team Id” row to change this information. Tap in either the Name or Id field to bring up the keyboard. Enter your team name and id and press save. Then tap “Set Up Race” on the title bar at the top left to return to Set Up. If you do not press “Save”, the changes you made will be lost.

**Start Time:** Tap the “Start Time” row to change the expected start time for your team. This start time will be used to estimate leg start and end times prior to actually beginning the race. Use the time picker to set your start time, then tap “Save Start Time” and exit to Set Up by again pressing the back button “Set up Race” on the title bar. **This time will be saved as your current time zone. So, if you will be racing in a different time zone you will want to make the adjustment.**

Del Sol  
Set Up Race **Set Leg Data - Leg 1**  
Leg 1 8.30000000... 8:00  
Select Runner and Pace for Leg:  
Judy  
John  
Joe  
Jill  
Enter Pace (format mm:ss):  
8:00  
Continue Rotation  
Save Leg Data Save & Next>>

**Race Legs:** If a race leg does not display the blue circle arrow, it is not set up, meaning there is not a runner assigned. Tap a leg to select it. You can also scroll down the list to see all the legs.

The leg data screen looks like the above image. There is a scrollable list of runners and an entry field for pace. Use the list to select the runner and pace for the leg. If you want to save and return to the Set Up Race tap “Save Leg Data”. If you wish to continue to the next leg for set up, tap “Save & Next>>”.



**Continue Rotation:** If you have entered a full round of runner information and want it to automatically be copied to the remaining legs, use the continue rotation button. This button should be pressed on the first leg you want data copied to. Usually, this will be leg 13 after you have entered a runner and pace for legs 1-12. If Leg 13 is displayed and you press “Continue Rotation” all the data will be copied to the remaining legs.

**Send Data:** The master device needs to “Send Data” to the server for the slave devices to retrieve.

## Setting Up Slave Devices:

**Step 1: Select Race:** Each Slave device will need to select the race they will be using.



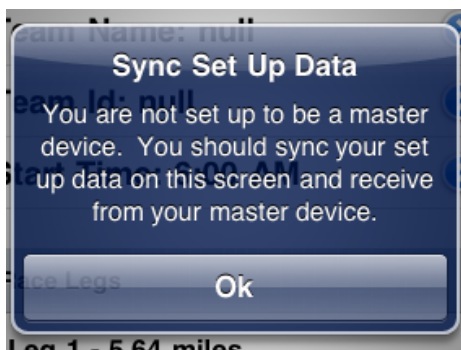
### Step 2: Multi Device Set Up:

Tap the row saying “Device is Master” the text will change to “Device is NOT Master”. Enter the team key that was provided to you from the Master device setup. You will need to press “Save Team Key” to save the key entered.

Next tap or check the legs the device will be responsible for tracking. So, if this device will be used by van 2 you would check legs 7-12, 19-24 and 31-36. If you will just be viewing data leave all the legs unchecked.

### Step 3: Race Set Up:

**Data access is required to send or sync the data!**



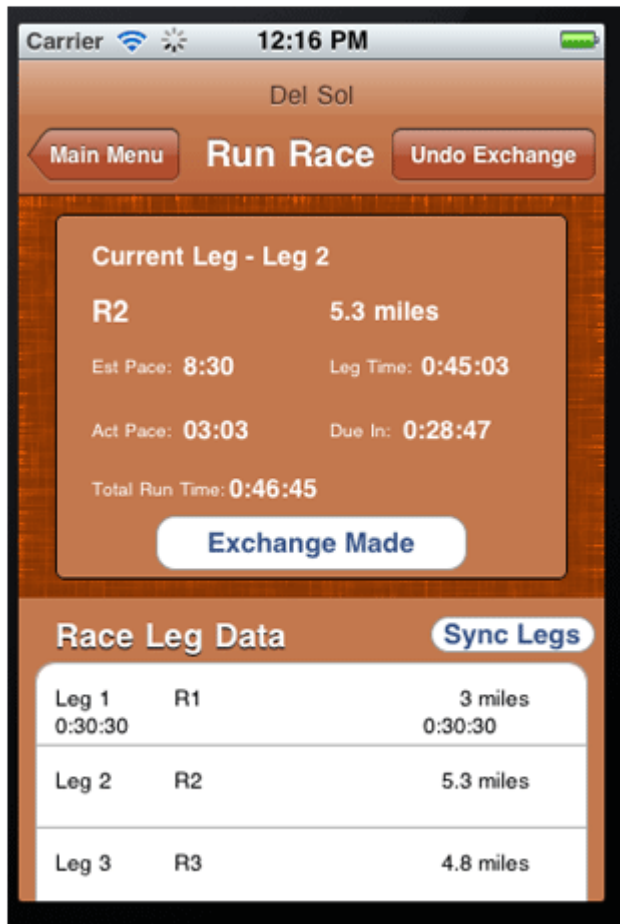
The master device is in charge of entering all set up data. A slave device will see a reminder to sync data when you first enter the Set Up Race screen. Tap Ok and then ‘Sync Data’ in the top right. If your Team’s Master device has sent the data you the set up will fill in otherwise you will get a no data found message



### Running the Race (Both Master and Slave Devices):

Your master and slave devices should now be set up and have shared all the set up data. You are now ready to run the race! Choose “Time Race” from the main menu and the screen below will be displayed.

**Multi Device Note** – If you are set to track a leg you will “own” that data and it will not be over written on a Sync. If you are not tracking the leg but record data, it will be overwritten when you Sync.



**Begin Race:** This button will record the start time of the race and start the timer for the current leg. Once clicked the button will change to “Undo Exchange”.

**Current Leg:** This window will display the current leg being run. It will show the Leg number, distance, runner name. **Estimated Pace:** This is the pace entered during the set up.

**Leg Time:** This is the estimated duration of the leg from the estimated pace.

**Act Pace:** This pace will be changing. It reflect the pace is the runner completed the leg at that moment. When it nears the Estimated Pace the runner should be near the exchange.

**Due In:** The time here will begin at the Leg Time and count backwards. It is how much time should be remaining until your runner is at the exchange (if your predictions were correct). The Due In box will turn yellow 5 minutes before the expected time and turn red when it is past time.

**Total Run Time:** The total elapsed time since you started the race.

**Exchange Made:** Tap this button when your runner makes the exchange. The Current Leg will move on to the next leg.

You can see the data for the completed leg by tapping the leg in the Race Leg Data.

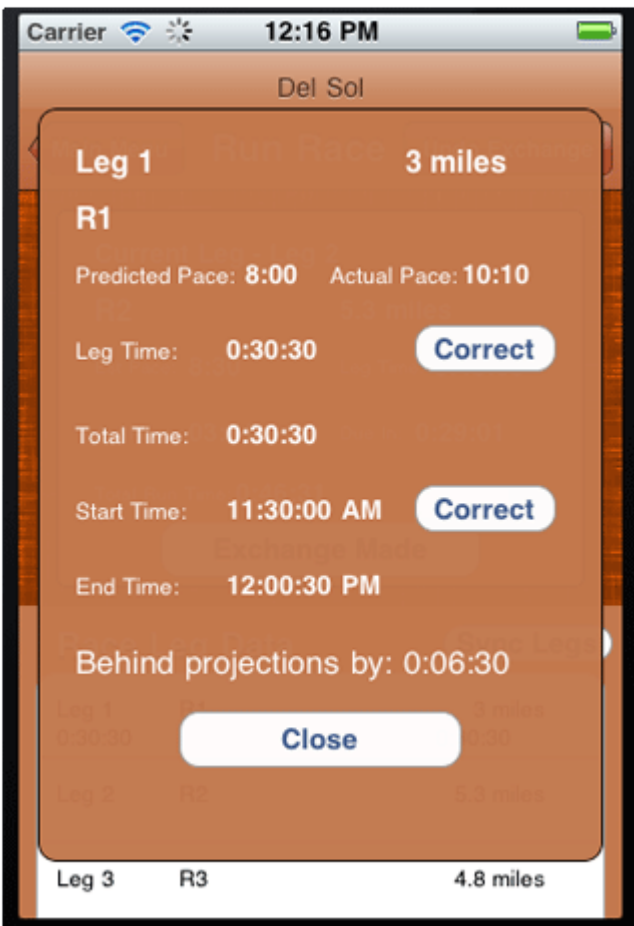
**Race Leg Data:** This is the actual data for the race. You can tap a leg to get detailed information (see following page). On this screen it will display Leg Name and



distance. Once a leg is complete it will display the leg time on the left and total race time on the right.

**Sync Legs:** If you are set up to run in multi device mode you will have a 'Sync Legs' option to send and receive actual leg data. You only need to Sync if you want to get data that was recorded by another device. The recorded data for legs you are

tracking is automatically sent to the server.



**Leg Details:**

When you enter this screen prior to beginning the race you can view leg estimations. These times are based on the start time and runner data you entered. Tap a leg to see the information.

The leg name and distance will be at the top of the window. Next will be the name of the runner along with the predicted pace that was entered during set up. There is no Actual Pace, Leg Time or Total Time until the leg has actually been run.

**Start Time:** The start time is the estimated time of day the runner will begin the leg. This is based on the set up start time if the team has not started the race. After the team has begun the race all actual data will be used to predict the leg start and end

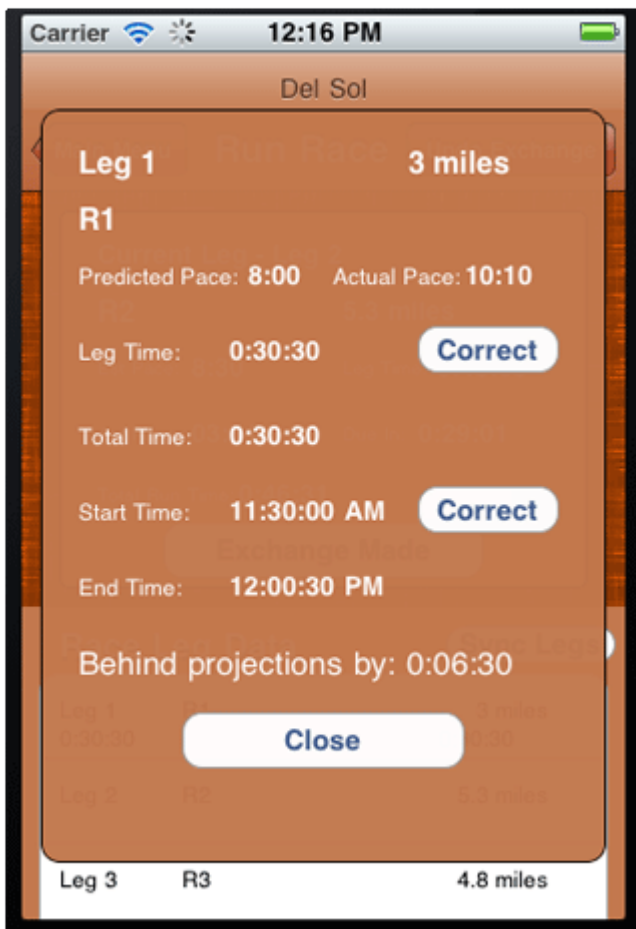
times for the legs not run yet.

**End Time:** The end time will use the start time and predicted pace to estimate the time of completion for the leg.

Once the leg has been completed the Start and End time will reflect the actual start and end time data.

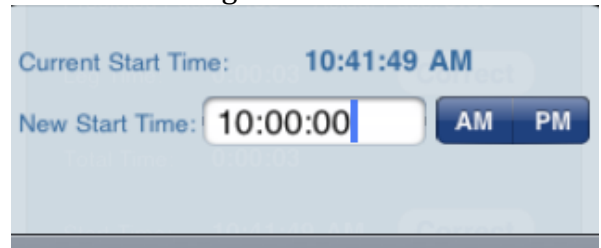


**Behind/Ahead of projections:** Once a leg has been completed this line will show how far ahead or behind a team is running based on the estimates entered. This is a running total of all completed legs. Thus if leg 1 was 1:12 faster than estimates and leg 2 was 0:19 slower, the line would read “Ahead of projections by 0:00:53”

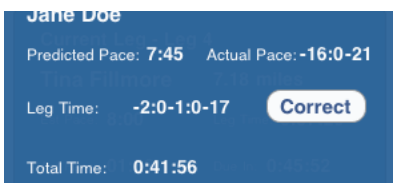


**Correcting Leg Times:**

If you need to correct the Start Time of the race or a leg time you can change it in the Leg Detail after running the leg. In this case we will change the start time from 10:41:49am to 10:00:00am which will make the leg time correct.



The new leg time will be calculated and displayed. You can also change the duration of the leg to push time from one leg to another. **Always start from the start time and work down legs to change the times!**



**If you change a leg time and see data with negative values you’ve run into the future!!** Go back to the previous leg and correct the times so you are not running in future time.



**Sync Legs:** If you are set as a multi-device team (i.e. you have a team key entered) you will have a 'Sync Legs' button at the top of the Race Leg Data. You can use this button to pull in actual team data (\* must have internet access). Which ever device is responsible for tracking leg 1 will also send the start time. The device will attempt to send exchange information as it happens as long as Internet access is available. If it did not send the device will send the data when you press 'Sync Legs'. It will also attempt to pull in and update any leg you are not responsible for tracking. It's always a good idea to write down you times before performing a Sync. **If you forgot to check the device is responsible for tracking a leg that you did time your data could be overwritten.**

**Tracking:** Each time an exchange is made the Relay Track will send a message with your location to the Running Escapes website. You may see a message that you need to enable Location Services. **\*\* This does assume you have Internet access** at that point of the race. If you do not it will not send the location until you reach and exchange point where you do have Internet access.

To enable Location Services, exit the Relay Tracker application and enter setting for the iPhone. Location Services can be found under General. Friends and Family can track your team's location by visiting:

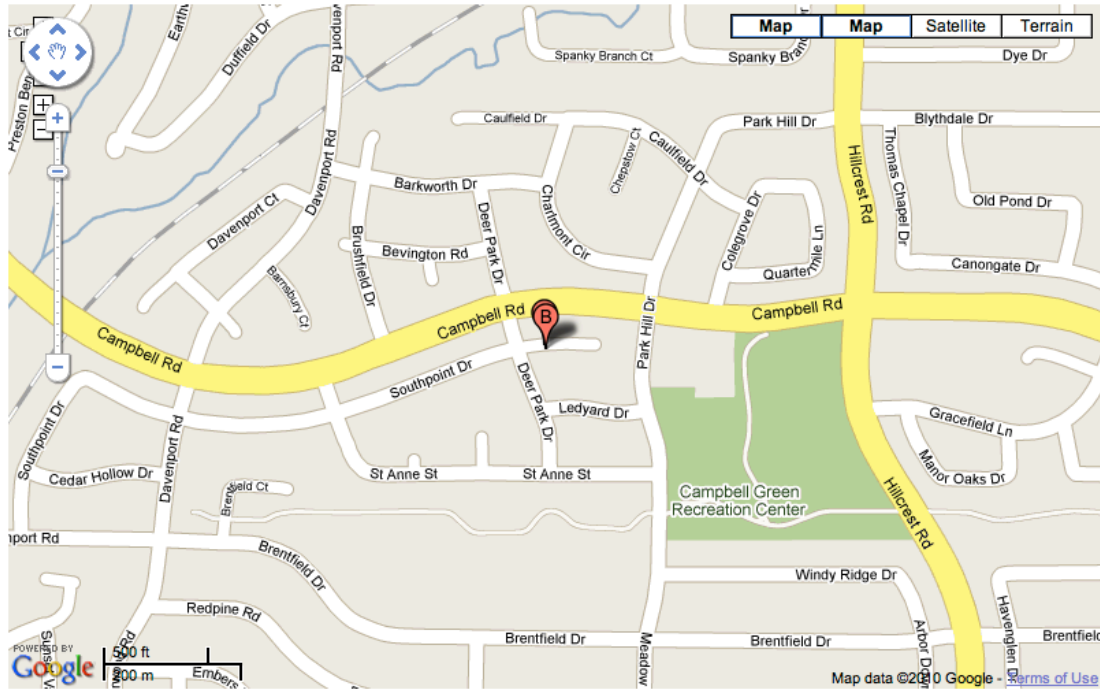
<http://www.runningscapes.com/relaytracker>

They will need to select your race. A page like the following will display a list of teams, the last time an update was received and a map of all the team locations.



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**Running Escapes Relay Team Tracker**



Last Update Time	Team Name	Team Id	Leg Location
4/26/2010 2:12:46 PM	RunningEscapesRelay	0	19
4/26/2010 2:42:21 PM	MyTeam	null	3



#### **Step 4: Email Race Data:**

This last step will allow you to email your race data. When you tap on the button you will see a normal email message that is ready to send. The email will contain the Leg Name, Runner Name, Actual Pace, Exchange Time, Leg Duration, Total Time, Leg Start Time and Leg End Time. The data will be in two sets. The first will be a more reader-friendly version of the data. The second will be comma delimited for ease in copying into a spreadsheet application.. You will need to enter the email address of the recipients. The race director's email may be programmed into the application. If you send the email prior to the start or completion of the race the Leg Start and End Time will be estimates based on the data entered in Set Up. If the Actual Pace, Leg Time and Exchange Time of a leg are 0 then the Start and End times are estimates.

#### **FAQs (aka “Help! I need to \_\_\_\_\_ and I don’t know how.”)**

##### **... Change a runner during the race**

If you need to change who is running a leg, you will do this exactly as you did to set-up the leg. From the Main Menu, go to Set Up Race, choose the leg that needs updating, click on the leg and choose a new runner. This can be done at any time (before they run, during the leg or after the leg is over).

##### **... I need to shift all the legs from the current leg because a runner got hurt.**

Currently, there is no easy way to do this. You will need to individually change each leg.

##### **... re-start because I hit “Begin Race” too early.**

To restart the race, go back to the Main Menu and hit the “Reset Race” button on the title bar. Answer “confirm” to the prompt and the race is reset.

##### **... fix an exchange time because I missed the exchange and hit it 2 minutes later than I should have.**

See Changing Leg Times above in the Run Race section.



**Set Up Race:** If you are set up to share data and you are set to be the Master device you will need to complete the set up as above and 'Send Data' (top right). The master device controls the set up of the data.

Set up data includes Race Information (Team Name, Id and Start time) as well as Race Leg set up