# Category: Device Tracking

# Module 2: Routes/Journeys

### Who should read this guide?

You should read this guide if you operate a Tracertrak account to monitor the status of mobile devices moving across a transport network, and you want data to highlight problem areas so you can focus your efficiency efforts.

Route and Journey Reports can be generated to improve your visibility of:

- The location and status of your devices' movements on the transport network.
- The status of your devices at fixed locations including time stationary.
- Periodic performance reporting for devices that follow certain routes on the transport network – comparison of expected performance vs actual performance.
- Periodic performance reporting for devices that are idle at fixed location – comparison of expected time idle vs actual time idle.

### What is in this guide?

- What is a Route
- Create a Route
- What is a Journey
- Create a Journey
- Map Objects
- Reporting Overview

## What is a Route?

A route is a designated geographical boundary that connects two separate company locations. Devices travel back and forth between Company Location A and Company Location B within the designated path's boundary. Once your route is created, the real-life status of a device on the route can be reported in a Device Status Report.



## Create A Route

**Note:** Prior to creating your route you need to have already set up your company locations (see 'General Module #4 – Custom Map Features' for help with setting up a company locations).

To create a new route head to the Configure > Routes tab. The default view on this page is to show by 'Journeys', so the first step is to change the view to show by 'Routes'.
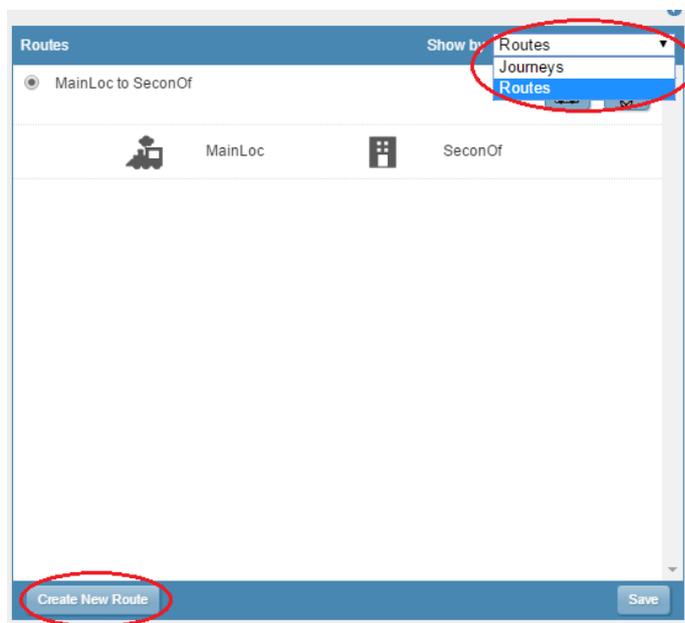


Once you have changed the view to show by Routes, select the 'Create New Route' button. This will present a pop-up where you select the first and then the next company locations that will make up your new route.
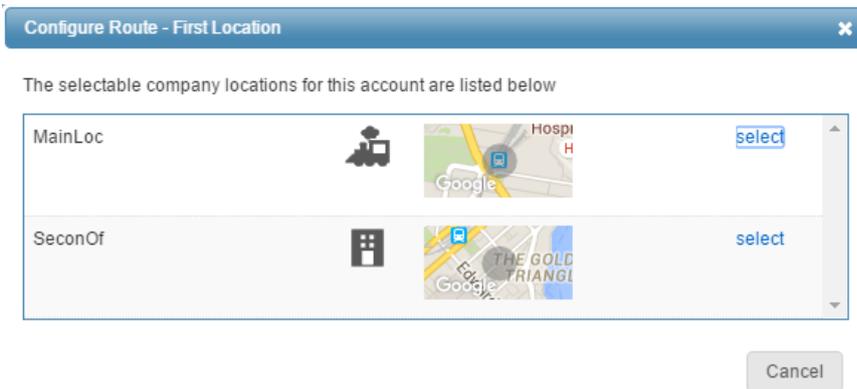
Upon selecting your two company locations, Tracertrak will automatically populate a straight line boundary between the two points.

You then add the following route properties:

- Tolerance (required): A value in kilometres that represents the width of your route path.
- En route to "destination A" (optional): A label that shows in reports to indicate the direction the device is travelling when travelling from B to A.
- En route to "destination B" (optional): A label that shows in reports to indicate the direction the device is travelling when travelling from A to B.
- Click Save
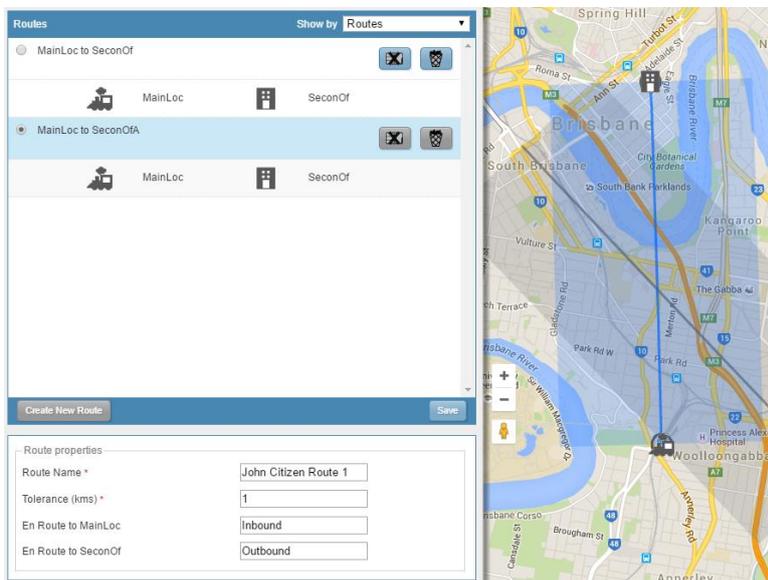


The next step is to build your path using one of the 3 available methods. Open the path editor by clicking on the blue line on the map which shows a straight route between your two company locations.

**Directions:** use this method if travelling by road.

**Vertices:** use this method to quickly manipulate the straight line with a series of bends.

**Freeform:** use this method to quickly draw the desired line with mouse clicks between the two points.

Once you have finished building your path, confirm by selecting the ✔ button and then Save .

### What is a Journey?

Journeys are a collection of one or more connecting Routes in a series. The Journey contains a set of expectations relating to how long it should take a device to complete the journey. The actual performance of your devices can be measured against those expectations in a 'Journey Report'.
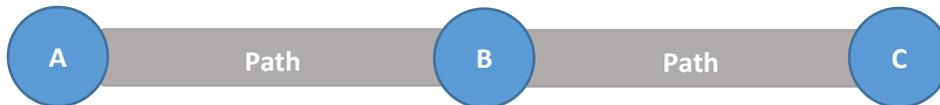


### Create a Journey

To create a Journey, change the 'Show By' page view back to 'Journey' mode in the Configure > Routes tab. By default, there will be no Journeys configured on the account and you can create one by selecting the Create New Journey button. Give your journey a name, leave its Status as 'Active' and select 'Create'.
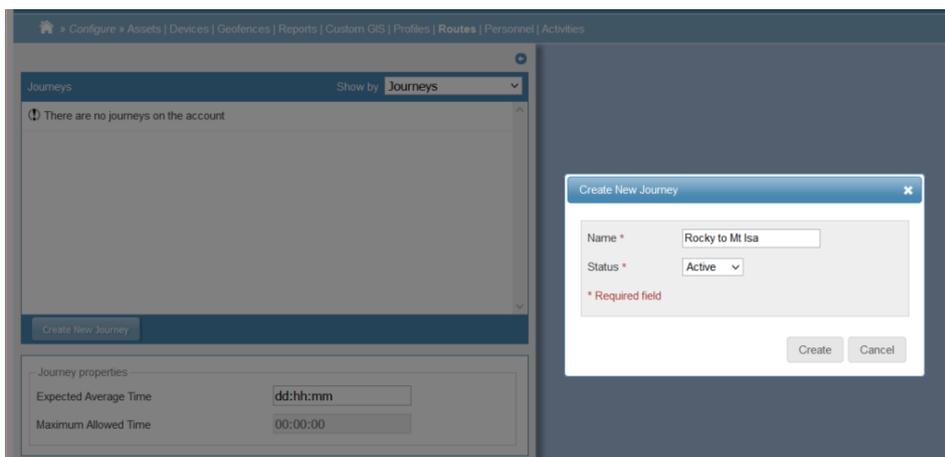
You will be prompted to insert the first location under 'Route Configuration' at the bottom of the page. Pick the two company locations you wish to form the first leg in your Journey. If a route already exists you will be able to select the pre-existing route, or you can create a new route at this step in the process.
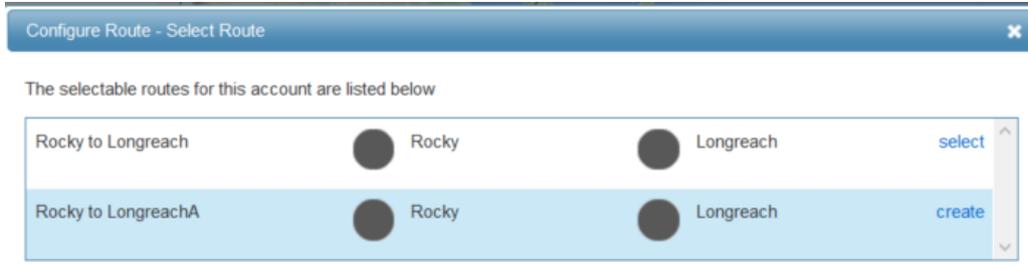


Once you have added all the legs in your Journey you need to fill in the additional properties under Journey and Route configuration. These properties provide the benchmarks to compare device performance within the Journey reporting.

**Journey Properties**

**Expected Average Time:** This optional field represents the expected duration that the journey should take from leaving the starting location to arriving at the destination location.

**Maximum Allowed Time:** This value is the calculated total of all configured "Max stationary" and "Max leg" durations. The field is updated automatically when an aforementioned journey leg property is configured or edited. Only valid values for "Max stationary time" and "Max leg duration" will be included in the total. If a journey exceeds the maximum allowed time, it will appear as an exception in the Journey Performance Report.

**Journey Leg Properties**

**Max stationary time at X:** The allowable idle time for a device to be stationary at the first location in the corresponding route.

**Max leg duration:** The maximum allowable duration time that a device should be in transition between each end-point of the corresponding route.

**Map Objects**

Use the map to define various route paths, and organise waypoints. The map displays all the routes (in the appropriate colour - see table below) and the company locations on an account. Each route will start and end at a company location and may intersect other company locations, portrayed as waypoints. Some routes can share end-points, but every route will contain a unique boundary.

**Route Paths**

Every route on the account will be displayed on the map in one of three colours. These colours indicate the editing status. See below:

| | |
|---|---|
|  | An existing route belonging to the current journey. |
|  | A pending new route belonging to the current journey |
|  | An existing route not belonging to the current journey. |

**Waypoints**

Waypoints are company locations that are not end-points for a given route, but reside within the route's boundary, and are used in status reporting. They are coloured based on their editing status. Add waypoint to a route by clicking the  icon.

| | |
|---|---|
|  | A saved waypoint. |
|  | A pending waypoint. |

## Map Controls

Additional controls are provided to manipulate the map.

| | |
|---|---|
|  | Define Waypoint mode is enabled. Whilst enabled, clicking a point on a journey's route will create a pending waypoint. Click to turn off define waypoint mode. |
|  | Define Waypoint mode is disabled. Click to enable. |
|  | Route boundaries are currently displayed. Click to hide boundaries. |
|  | Route boundaries are currently hidden. Click to show boundaries. |

## Reporting Overview

The following reports are available to be configured in the Configure > Reports tab.

| Report Type | Overview |
|---|---|
| Device Status Report | This report will show the current status of the selected devices against the selected Routes and other parameters:<br>Co-ordinates<br>Route State (e.g. At Location, enRoute, Pending or Off Route)<br>End-Point (End point within the Route where the device is at or is enRoute to).<br>Direction Label (Customer Defined e.g. Inbound OR Outbound)<br>In Motion – Yes or No<br>Active Alarms (e.g. Door Open) |
| Company Locations Status Report | Reports the current status of any devices that last reported from the selected Company Locations:<br>Company Location<br>Device Name<br>Route Direction Label (Customer Defined e.g. Inbound OR Outbound).<br>Current Active Alarms (e.g. Door Open).<br>Time Arrived at Company Location.<br>Total Time at Company Location. |
| Journey Performance Report | Reports performance data based on statistics collected for devices that completed the journey. Provides a graphical representation of average performance vs. allowable performance:<br>Average total time taken for the Journey – compared to allowable total time and expected average time to complete.<br>Average transit time taken for each Route within the Journey and return Journey.<br>Average idle time at Company Locations during the Journey and return Journey. |
| Idle Performance Report | Reports performance data based on statistics collected for devices that spent some time at the Company Location during the report period:<br>Average time devices were idle at each Company Location per journey.<br>Allowable idle time at each Company Location per journey.<br>Number of completed journeys used to calculate the average. |