

The Tracertrak 2019-Q3 release includes over 30 enhancements including bug fixes, security improvements, performance improvements, general improvements and several new features. The most significant enhancement in this release is the addition of the Last Known Location API which is the focus of these release notes.

Tracertrak Last Known Locations API

Some Tracertrak customers integrate geospatial data from many different systems including Tracertrak. Until the 2019-Q3 release, the only way to effectively do this was by using a proprietary parallel data feed from Pivotal's Pulsar service. While this has been a functional solution, it has proven challenging for some customers to integrate with. In response to the growing demand from Tracertrak customers for an easier way to integrate Tracertrak data into their consolidated mapping solutions, the Tracertrak Team has developed the Last Known Locations API.

The Last Known Locations API allows authorised users to access a secure API URL which defaults to providing the last known location for device groups accessible by that authorised user. It is possible to customise this URL to only include data for specific device groups that the authorised user has access to. Only users who belong to a role that has the right to Search Historical Locations will be able to access the API URL. The API URL is located in Tracertrak Console >> Administer >> My Settings.

The Last Known Location API URL takes the following form:

<https://console.tracertrak.com/spview/locations/v1/GeoJSON/group=not%20grouped&auth=K1cpEiNXhYUcv2w7RuVqPuYv1N>

The URL is made up of the following parts:

URL Part	URL Syntax	Guidelines & Limitations
API Source & Data Format	<code>https://console.tracertrak.com/spview/locations/v1/GeoJSON/</code>	This will be the same for every API URL
Group specification	<code>group=not%20grouped</code>	<p>Specifies the device groups to restrict the API URL call to.</p> <p>Multiple groups can be listed, such as <code>group=red&group=blue</code>.</p> <p>Specifying a group to be included will include all devices currently in the group and also any devices added to that group in the future.</p> <p>No Group specification will default to all devices visible to the user being included.</p> <p>Individual devices can be referenced by adding them to a new group for the purpose of exporting them through the API.</p> <p>If group permissions are removed from a users account, any API calls for that user that includes those removed groups WILL NOT work.</p>
Authorisation Key	<code>auth=K1cpEiNXhYUcv2w7RuVqPuYv1N</code>	The unique API Authentication Key associated with that user account and used to validate the API
URL Part	URL Syntax	Guidelines & Limitations
		<p>request.</p> <p>Removal of the user account voids the use of that users Authentication Key and will cause any existing API URL's created with that key to fail.</p> <p>If the permission to view location history is removed from the role assigned to the authenticating user, any API calls created under that users account WILL continue to work.</p>

The Last Known Location API provides GeoJSON formatted data. An example of the GeoJSON format is shown below:

```
{
  "type": "FeatureCollection",
  "features": [
    {
      "type": "Feature",
      "geometry": {
        "coordinates": [
          [-32.576475, 51.616004]
        ],
        "type": "Point"
      },
      "properties": {
        "deviceId": "0-8394103",
        "msgTimestamp": "2019-02-07T05:36:04Z",
        "payload": "somepayload",
        "name": "three",
        "cause": "TRACK",
        "type": "standard"
      }
    },
    {
      "type": "Feature",
      "geometry": {
        "coordinates": [
          [-12.678221, -33.760289]
        ],
        "type": "Point"
      },
      "properties": {
        "deviceId": "0-419585",
        "device_input_2_state": "0",
        "cause": "REPLACEBATTERY",
        "type": "standard",
        "msgTimestamp": "2018-07-26T07:30:08Z",
        "payload": "generated payload",
        "name": "Dubbo",
        "device_input_1_state": "0",
        "inMotion": "0",
        "networkType": "SAT",
        "GPSFix": "0"
      }
    }
  ]
}
```

The data included in the GeoJSON message includes:

- Date/Time (ISO 8601)
- Longitude, Latitude (WGS84)
- Device ID (as per Tracertrak)
- Device Specific Broadcast Content
(any additional data associated with that broadcast event such as digital inputs, temperature, battery level etc.)

Copy Settings - Asset Tracking Devices

For those Tracertrak customers who have large fleets of asset tracking devices, it can be an arduous task to ensure that all of the devices are configured correctly and consistently. The Copy Settings feature has been a good option to copy alarm configurations to and from devices, however, it has not supported complex device configurations. In recognition of the importance of being able to reliably copy ALL Alarm Settings between devices, the Tracertrak Team has worked over the last few releases to steadily improve the functionality of the Copy Settings functionality so that it is now a reliable means of copying all alarm settings from one device to another.

Support for Location Timestamps

Tracertrak now supports a range of new devices including the Rock7 RockSTAR and Rock7 RockFLEET. Both of these devices have the ability to transmit multiple events in a single broadcast. In order to differentiate such events, it was necessary for Tracertrak to use the GPS Location Timestamp instead of the Broadcast Timestamp, allowing the events to be displayed uniquely in the Map Results panel. This will help QLD Fisheries customers and NZ Fisheries customers distinguish discrete tracking events.