

TracerTrak Console User Guide – Iridium Extreme Satellite Phone

Note: This document contains hyperlinks to useful information and is best viewed electronically.

The Iridium Extreme is a rugged satellite handset designed to be used in remote areas anywhere on earth using the Iridium satellite network. It combines satellite telephony with GPS tracking and is capable of sending and receiving Messages by SMS or directly to TracerTrak using Iridium’s Short Burst Data Service (SBD).

When used with TracerTrak, the Iridium Extreme provides a “go anywhere” solution for Personnel communication and safety. TracerTrak has been specifically designed to maximise the functionality of the Iridium Extreme in an OH&S monitoring environment, making it simple to manage the safety of groups of remote workers.

The purpose of this guide is to provide a new TracerTrak Account User with a specific understanding of how the various elements of this functionality come together for the Iridium Extreme handset. Full User information for the TracerTrak system is available from within the console by selecting the  icon.

Remote Personnel that will be operating the handset should refer to the ‘TracerTrak Handset User Guide - Iridium Extreme’.



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Activate your Iridium Extreme for use with the TracerTrak System

Before an Iridium Extreme is able to be used with the TracerTrak system, it must first be added to your TracerTrak Account and then 'Activated'. The process of activation configures the handset for use with the TracerTrak system.

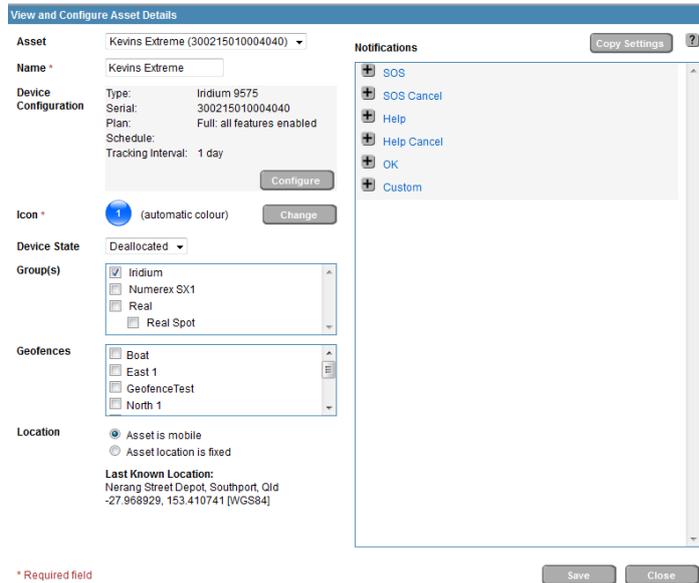
To Activate and configure a handset once logged into TracerTrak:

1. Open the Configure tab
2. Locate the handset from the available list - it will be identified by its IMEI, which can be found on the label on the handset box or under the handset battery. Select "View and Configure" by clicking on the pencil icon. This will open the View and Configure pop-up (shown in Figure 1)
3. Click the Configure button - this will open the "View & Configure Device" pop-up shown in Figure 2.
4. Click the Activate button. This will open a new Activate pop-up shown in Figure 3.
5. The pop-up shown in Figure 3 will guide you through the Activation process, including the Activation PIN.
6. Once you have entered the PIN in the handset, close the Activate pop-up.
7. In the View and Configure pop-up you have the option to select the Tracking Frequency (as long as the handset is registered on the network, it will report its location at this frequency) and allocate the handset to a [Profile](#) and [Person](#). Once all of the configuration changes are made, click the Save button at the foot of the pop-up.
8. To complete the activation process, you must now register your handset on the Iridium network. Ensure you are in a position to gain signal and wait until the signal indicator turns green and the handset displays the text 'Registered'. Once registered on the Iridium Network, your handset should display a pop-up Message "Welcome to TracerTrak".
9. Your Iridium Extreme is now ready for use with the TracerTrak system.

Note: If you do not receive the "Welcome to TracerTrak" Message within a few minutes, turn your handset on and off again in clear view of the sky and wait for the handset to register on the Iridium network.

After you have activated an Iridium Extreme in TracerTrak the 'Activate' button will display as 'Re-Activate'. This allows you to repeat the process should the handset become 'Unregistered' with TracerTrak or enter a state of 'Unconfirmed' or 'Service Error' (see 'TracerTrak Handset User Guide – Iridium Extreme' for further detail).

Figure 1 – View and Configure pop-up



View and Configure Asset Details

Asset: Kevin Extreme (300215010004040) Copy Settings ?

Name: Kevin Extreme

Device Configuration: Type: Iridium 9575, Serial: 300215010004040, Plan: Full: all features enabled, Schedule: Tracking Interval: 1 day Configure

Icon: (automatic colour) Change

Device State: Deallocated

Group(s): Iridium, Numerex SX1, Real, Real Spot

Geofences: Boat, East 1, GeofenceTest, North 1

Location: Asset is mobile, Asset location is fixed

Last Known Location: Nerang Street Depot, Southport, Qld -27.968929, 153.410741 [WGS84]

Notifications: SOS, SOS Cancel, Help, Help Cancel, OK, Custom

Save Close

* Required field

Figure 2 – Activate pop-up



View and Configure Device ?

Type: Iridium 9575

Serial: 300215010004040

Plan: Full: all features enabled

Schedule:

Tracking Interval: Startup Only

Activate Close

Figure 3 – Configure Device - Activate

On your Iridium 9575 device,

1. Enter "#575#" and push the green button.
2. The device will say,

Portal Registration - IMEI: 300215010004040

followed by a 5 digit number.

3. Select "Register".
4. The device will prompt

Enter PIN Portal Registration

5. Enter the device PIN "12952", followed by "OK".
6. The device should say

Successfully Registered

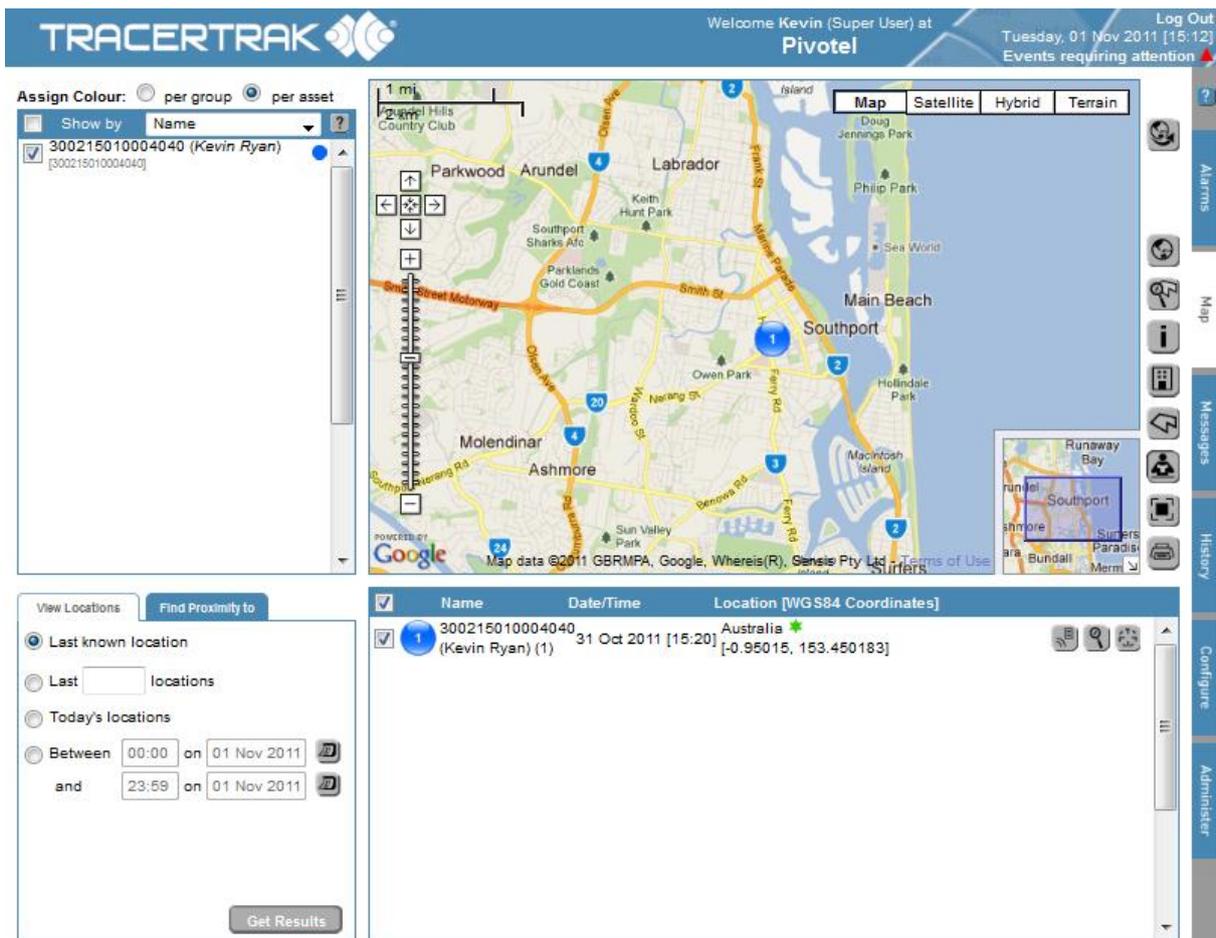
To complete the activation process, you must now register your handset on the Iridium network. Ensure you are in a position to gain signal and wait until the signal indicator turns green and the handset displays the text "Registered".

Mapping an Iridium Extreme in TracerTrak

Iridium Extreme handsets may be presented on the Map screen in TracerTrak when they send a location update, including Track Messages, Check-In Messages and SOS Messages. (Note: this does not include when your location is inserted into a text Message). In the map screen you may select one or many Iridium Extreme handsets and then select the search parameters for which location reports you would like presented on the map. For example, you may select the most recent location or locations based on date and time parameters.

Handsets shown on the map will be marked by a specific icon which shows the Asset's current state and any active Alarms. A full list of icons is available by clicking on the  icon on the Map page.

Figure 4 – Map Tab



Configure Settings

There are a number of settings in the Iridium Extreme handset that are Configured by TracerTrak. Some settings can be physically altered in the handset by a device User, but the system will reset these settings to match TracerTrak each time the phone is switched on.

Emergency Call Recipient

This setting in the handset is defaulted to the number associated with the Account Administrator in TracerTrak.

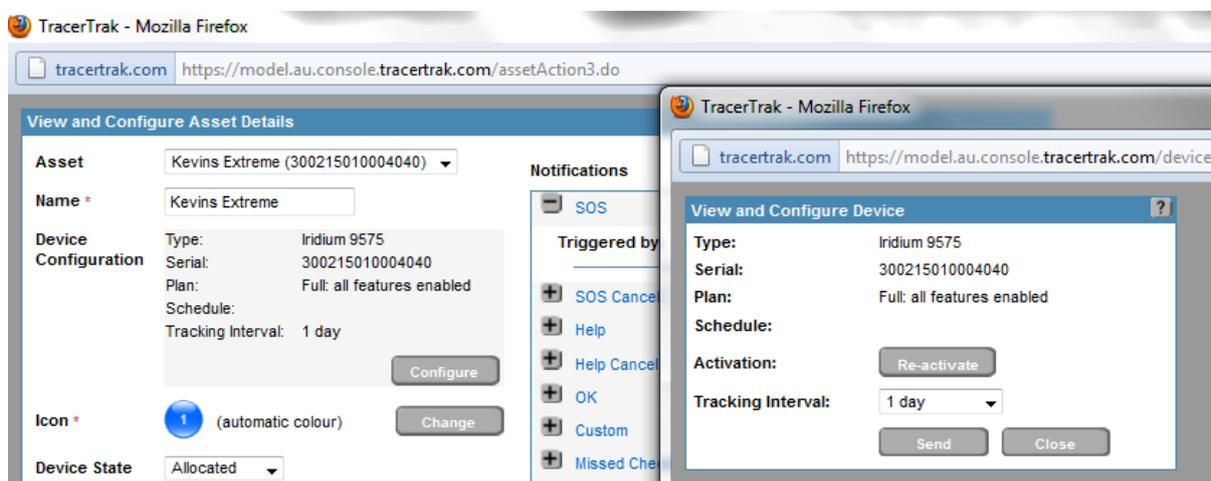
Emergency Handling

This setting in the handset is defaulted to 'Message only' so that TracerTrak will receive the SOS notification immediately. If 'Message Recipients' are physically entered by the device User in the 'Emergency Options' menu, the handset will also send SMS notifications to these pre-programmed mobile numbers concurrently.

Tracking Interval

The Iridium Extreme handset can be configured to send Tracking Messages at certain Intervals when registered on the network. You can select the desired Interval when you activate the handset, or return to Configure Device pop-up at a later stage. To select the Tracking Interval, open the Configure tab, Assets sub tab and select the pencil icon adjacent to the handset. Then select Configure, which will bring up the Configure Device pop-up. Select the desired Interval from the Tracking Interval drop down. For this change to take effect, click save at the bottom of the pop-up screen. Note: This will update the Tracking Interval setting stored in the handset remotely. The handset will need to be registered on the network for changes to occur immediately.

Figure 5 – Update the Tracking Interval



Canned Messages

Canned Messages are pre-defined Messages that device Users can select and send without typing the Message. Upon Activation, TracerTrak remotely updates the Canned Messages stored in the handset. The default Messages are:

1. HELP
2. HELP CANCEL
3. CUSTOM

When these Messages are received the system handles them as an Alarm or Event as described later in [Alarms & Events](#).

OH&S Functionality for Remote Worker Safety

There are specific elements in the TracerTrak system that interact to provide the most effective OH&S monitoring for remote worker safety with an Iridium Extreme handset.

Profiles

A Profile is established in a TracerTrak Account and provides a set of business rules that defines what will happen when certain conditions occur. This includes when SOS, Help and OK/Check-In Messages are received or when “sked” OK/Check-In Messages are not received within a defined Schedule. A TracerTrak User can establish Profiles to ensure an appropriate response to each specified situation.

To create a new Profile, open the Configure tab and then select the Profiles sub tab. Click on the ‘Create New Profile’ button at the bottom of the screen, this will open the Create New Profile pop-up, as shown in Figure 6.

Figure 6 – Create New Profile pop-up

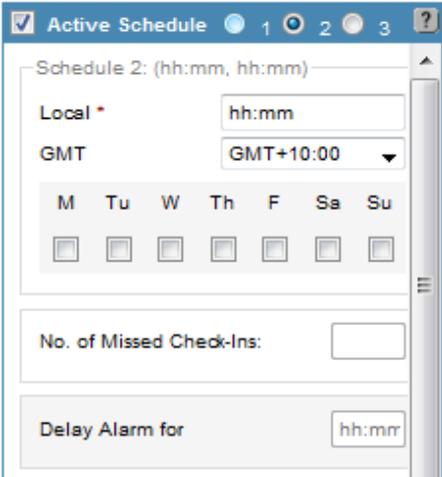
Create An Iridium Extreme Profile:

1. Enter a name for the Profile (this will appear later for your reference when allocating your Profile to various handsets)
2. Select the device type as 'Iridium 9575' from the drop down list
3. Define a Check-In Schedule (optional) which defines a time frame during which the Users of assigned devices are expected to send a scheduled Check-In Message ('SKED'). You can define up to 3 independent schedules which can be allocated to different days of the week. For example, you may allocate one Check-In schedule to weekdays and another to weekends.
 - a. Select the schedule 1, 2 or 3 and tick the 'Active Schedule' check box.
 - b. Enter the time of day in 24 hour format (hh:mm) that you wish your remote workers to Check-In. You can enter multiple times separated by a comma.
 - c. Select your time zone.
 - d. Select the days of the week you wish the currently selected Active Schedule to apply to. TracerTrak will only Alert a missed Check-In on the selected days.
 - e. Select the number of missed Check-Ins that you wish to allow before TracerTrak sends an Alert to the selected recipients (see Figure 7).
 - f. Enter a time value in the 'Delay Alarm for' dialogue box. This allows you establish the grace window during which Check-Ins may arrive.

Example of a working Check-In Schedule:

Bob is scheduled to Check-In at 12pm each day, Monday to Friday AEST. A delay alarm for value of 1 hour (01:00) is set. If Bob sends a Check-In Message between 12:00 and 13:00, no exception alarm will be raised. If Bob does not Check-In by 13:00, a missed Check-In Alarm will be raised in the TracerTrak system and the selected recipients will be sent an Alert by email and/or SMS that Bob has failed to Check-In.

Figure 7 – Active Schedule

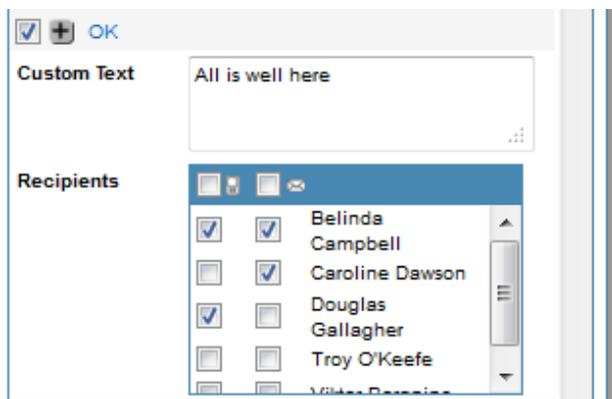


The screenshot shows a window titled 'Active Schedule' with three radio buttons (1, 2, 3) and a help icon. Under 'Schedule 2: (hh:mm, hh:mm)', there is a 'Local' field with 'hh:mm' and a 'GMT' dropdown menu set to 'GMT+10:00'. Below are checkboxes for days of the week: M, Tu, W, Th, F, Sa, Su. At the bottom, there is a 'No. of Missed Check-Ins' field and a 'Delay Alarm for' field with 'hh:mm'.

Configuring Alert notifications

In the Profile you can define which events will generate e-mail and/or SMS Alerts and to which system Users. Select the tick box next to the alert that you wish to enable. Then pressing the + symbol will expand the configuration field for eligible recipients. Select the appropriate tick box next to the individual User's name to select alert by email, SMS or both. For selected Alerts you may enter up to 40 characters of customised text which will be sent with any Alert, as shown in Figure 8.

Figure 8 – Configure Alert Notification



Alerts available for an Iridium Extreme are:

- a. SOS – When an SOS Message comes in from a handset. The Account Administrator is a mandatory recipient of SOS Alerts by email and SMS
- b. SOS Cancel – When an SOS Cancel Message comes in from a handset.
- c. OK - When an Check-In (OK) Message comes in from a handset.
- d. Missed Check-In - When one or more Check-In Messages are not received as per the schedule a “missed Check-In” Alarm is activated.
- e. HELP – When a HELP Messages comes in from a handset.
- f. HELP CANCEL – When a HELP CANCEL Message comes in from a handset.
- g. CUSTOM – When a CUSTOM Message comes in from a handset.
- h. Stationary – When a handset has not moved more than the minimum configured distance within a set timeframe (in hours).

Once a 'Iridium 9575' Profile is created it can be allocated to one or many Iridium Extreme handsets. This means multiple remote workers can operate under consistent business rules for ease of operation.

Alarms & Events

TracerTrak follows the business rules you define in the Profile that govern what needs to be done, and by whom, when an Alarm or Event condition arises.

Alarms are events that demand a certain organisational response, depending on the Alarm severity. Events that are not Alarms convey information of a non-critical nature about the field Personnel to whom the handset is allocated.

Alarms

Alarms that relate specifically to Iridium Extreme handsets operate as follows:

SOS Alarm

An SOS Alarm is the only Alarm type that is mandatory on every Profile. Similarly it is the only Alarm type that has a mandatory Recipient – the Account Administrator.

If an SOS Cancel Message is received from the handset this will show on the system and recipients will be notified in line with the Profile - but it will not end the SOS Alarm in TracerTrak. An SOS Alarm can only be ended by an Account Administrator or a User with appropriate permissions. This can be done in the system or by two-way SMS.

Optional reminders can be configured to be sent repeatedly until an Alarm is Acknowledged in the system.

Figure 9 – SOS Alarm Display in Alarm Tab

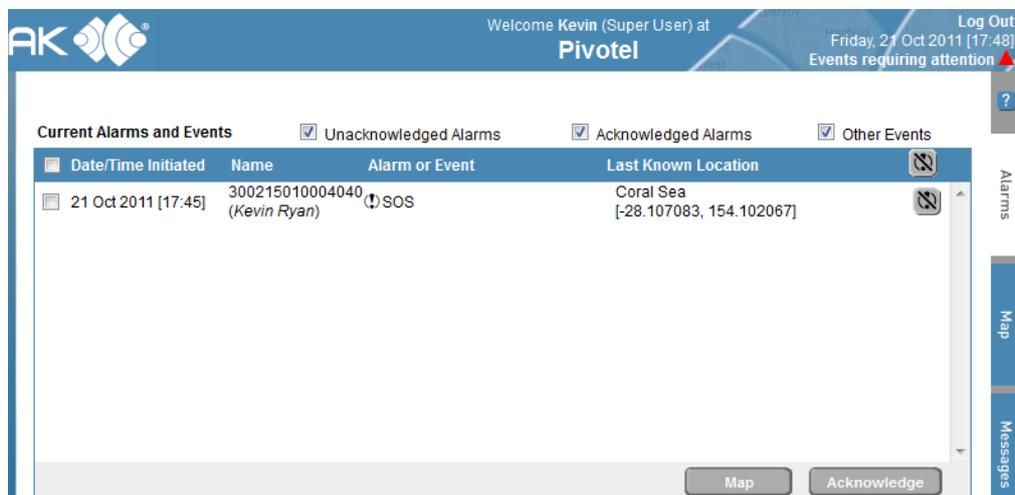
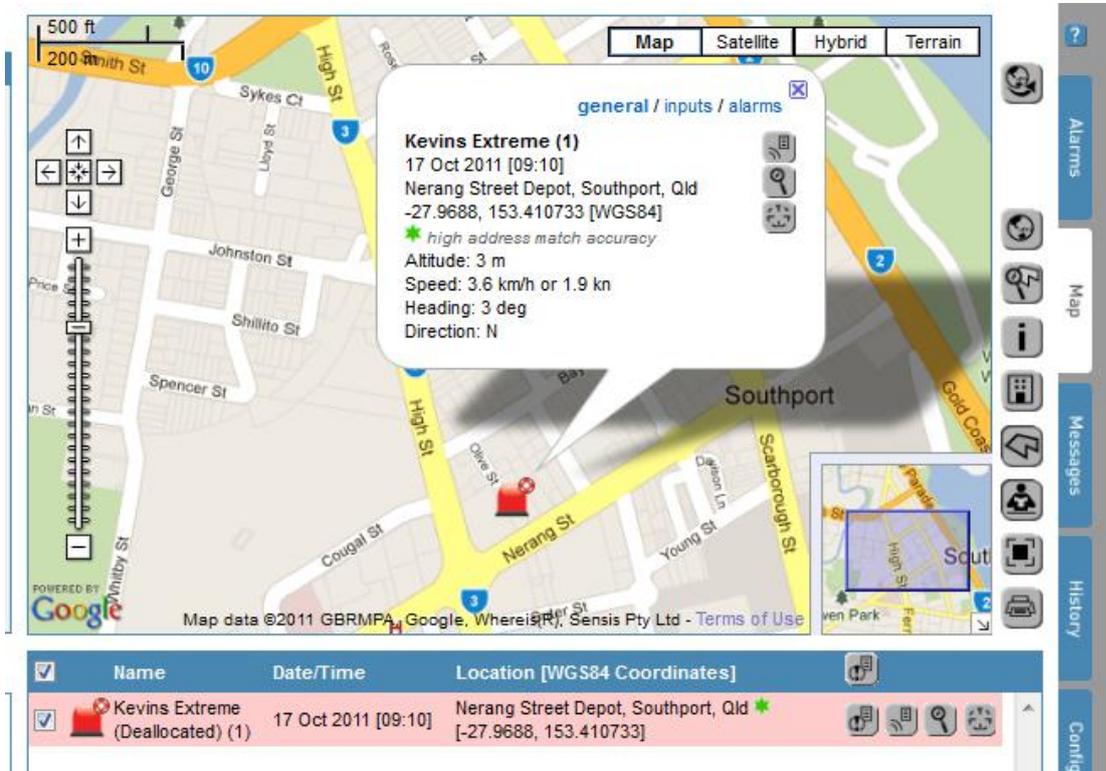


Figure 10 – SOS Alarm Display in Map Tab



A User can Acknowledge an SOS Alarm to indicate to other Users that the Alarm has been acted upon. Once a User has Acknowledged an SOS Alarm, the flashing strobe light will change to a standard icon marked with a life preserver icon.

Figure 11 – Acknowledge SOS in Alarms Tab

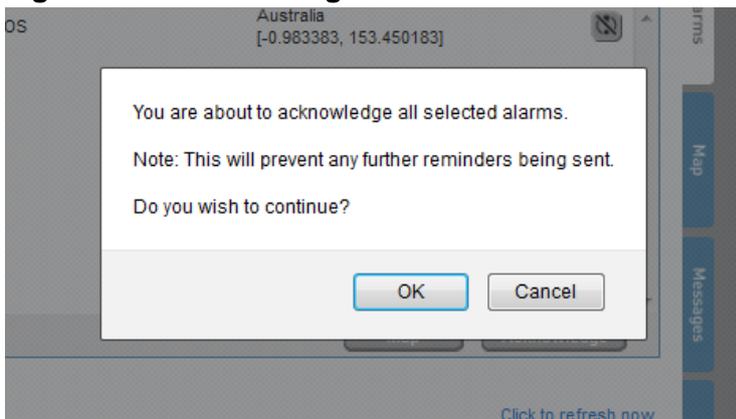


Figure 12 – SOS After Acknowledgment in Alarms Tab

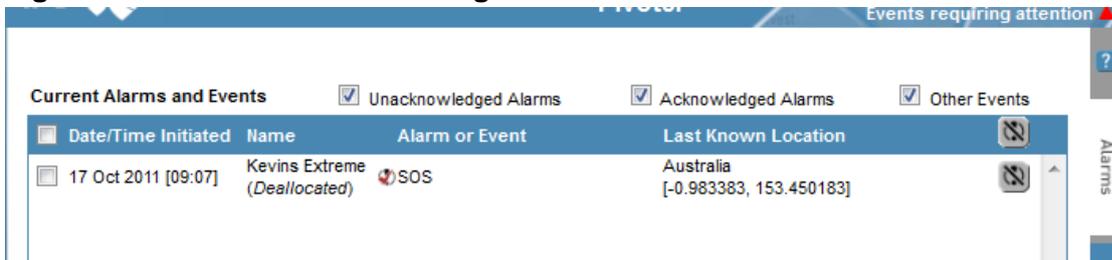
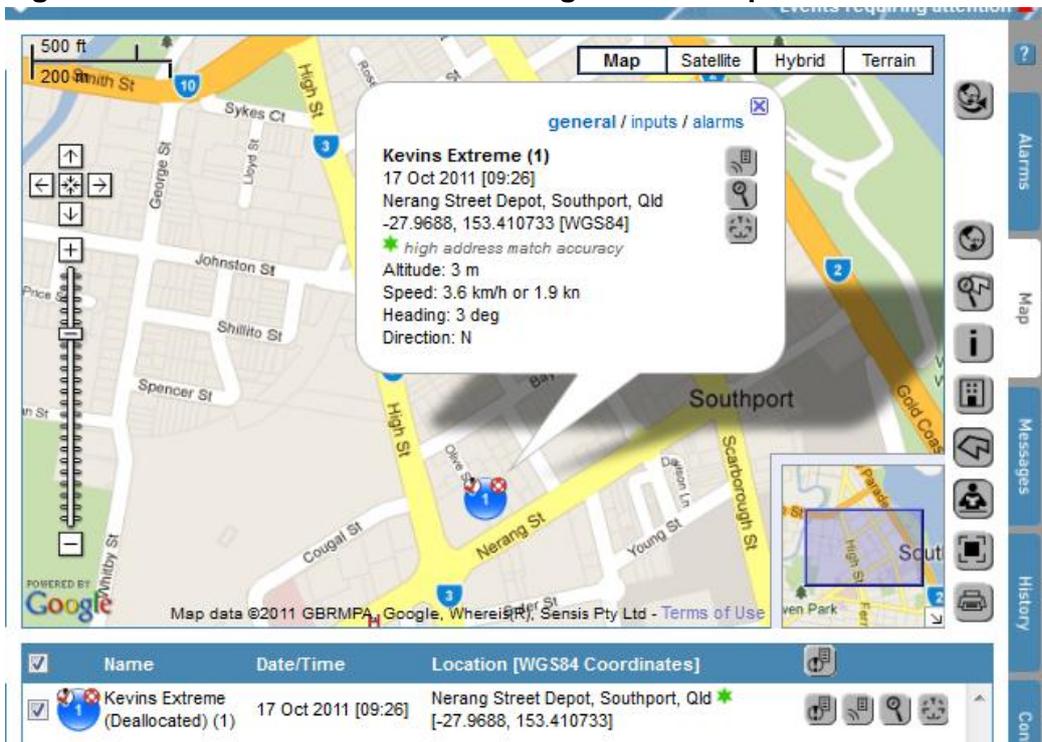


Figure 13 – SOS Alarm after Acknowledgement in Map Tab

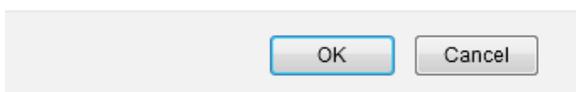


A User can end the SOS Alarm by selecting the  icon in the Alarms Tab or by 2-way SMS. The physical ending of the Alarm by a suitable console User is the only way to end an SOS Alarm.

Figure 14 – End SOS Alarm in Alarms Tab

You are about to end the SOS alarm for Kevins Extreme.

Do you wish to continue?



Help Alarm

A Help Alarm occurs when a HELP Canned Message is sent from an Iridium Extreme to TracerTrak. A Help Alarm can only be ended by an Account Administrator or a User with appropriate permissions in the system or by two-way SMS. If a Help Cancel Message is received from the handset this will show on the system and recipients will be notified in line with the Profile but it will not end the Help Alarm in TracerTrak.

Help Alarms display a special ‘thumbs down’  icon on the map.

Missed Check-In

A missed Check-In Alarm begins when a scheduled Check-In is not received within the parameters configured in the Profile. A missed Check-In Alarm is ended when a new OK/Check-In Message is received from the handset or the Alarm is ended by a User in the TracerTrak system.

Active Missed Check-In Alarms have a special alarm clock  icon on the map.

Alarms – General Notes

All active Alarms in the TracerTrak system, for the relevant asset/s will be ended if the Profile is changed. The system User is given a warning when changing the Profile.

To view and manage current Alarms go to the Alarms tab on the right of the system screen, full online help relating to Alarms is available [here](#).

Events

The following Messages can be configured within each Profile to send User customised email or SMS Alerts to one or more recipients. These Messages are considered Events and not Alarms and as such, there is no requirement to Acknowledge or End them.

SOS Cancel

An SOS Cancel Event occurs when the Iridium Extreme handset User cancels Emergency Mode in the device. The Alert recipient/s for this event will receive an email and/or SMS.

A special SOS Cancel  icon is displayed on the map to indicate an SOS Cancel. Note: an SOS Cancel event does not end the SOS Alarm – this must be done by a User in the TracerTrak system.

Help Cancel

A Help Cancel event occurs when the Iridium Extreme handset User sends a HELP CANCEL Canned Message to TracerTrak. The Alert recipient/s for this event will receive an email and/or SMS.

A special Help Cancel  icon is displayed on the map to indicate a Help Cancel. Note: a Help Cancel event does not end the Help Alarm – this must be done by a User in the TracerTrak system.

Custom

A Custom event occurs when the Iridium Extreme handset User sends a CUSTOM Canned Message to TracerTrak. The Alert recipient/s for this event will receive an email and/or SMS.

OK

An OK event occurs when the Iridium Extreme handset User checks in. The Alert recipient/s for this event will receive an email and/or SMS.

A special thumbs up  icon is displayed on the map to indicate a Check-in/OK.

Personnel

Personnel are people to whom handsets are allocated. These will be the remote workers whose safety is being monitored.

Personnel can be configured in the TracerTrak Account and then handsets can be easily and quickly allocated to the Personnel so that system Users can easily see who a condition event relates to. The Personnel configuration tool in TracerTrak allows organisations to enter key information about each Person including name, job title, contact number, department, office domicile etc.

To Create or Edit Personnel in your TracerTrak Account first open the Configure tab on the right of the system screen and then select the Personnel sub tab. Full online help for configuring Personnel is available [here](#).

Personnel and Profile Allocation

Multiple handsets can have Personnel and Profiles allocated quickly and simply in the Device Allocation screen. This means that a fleet of handsets may be shared between a larger group of remote workers. Go to the Configure Tab on the right of the system screen, select the Assets sub-tab and then click on the Device Allocation button at the foot of the page.

Full online help relating to device allocation is available [here](#).

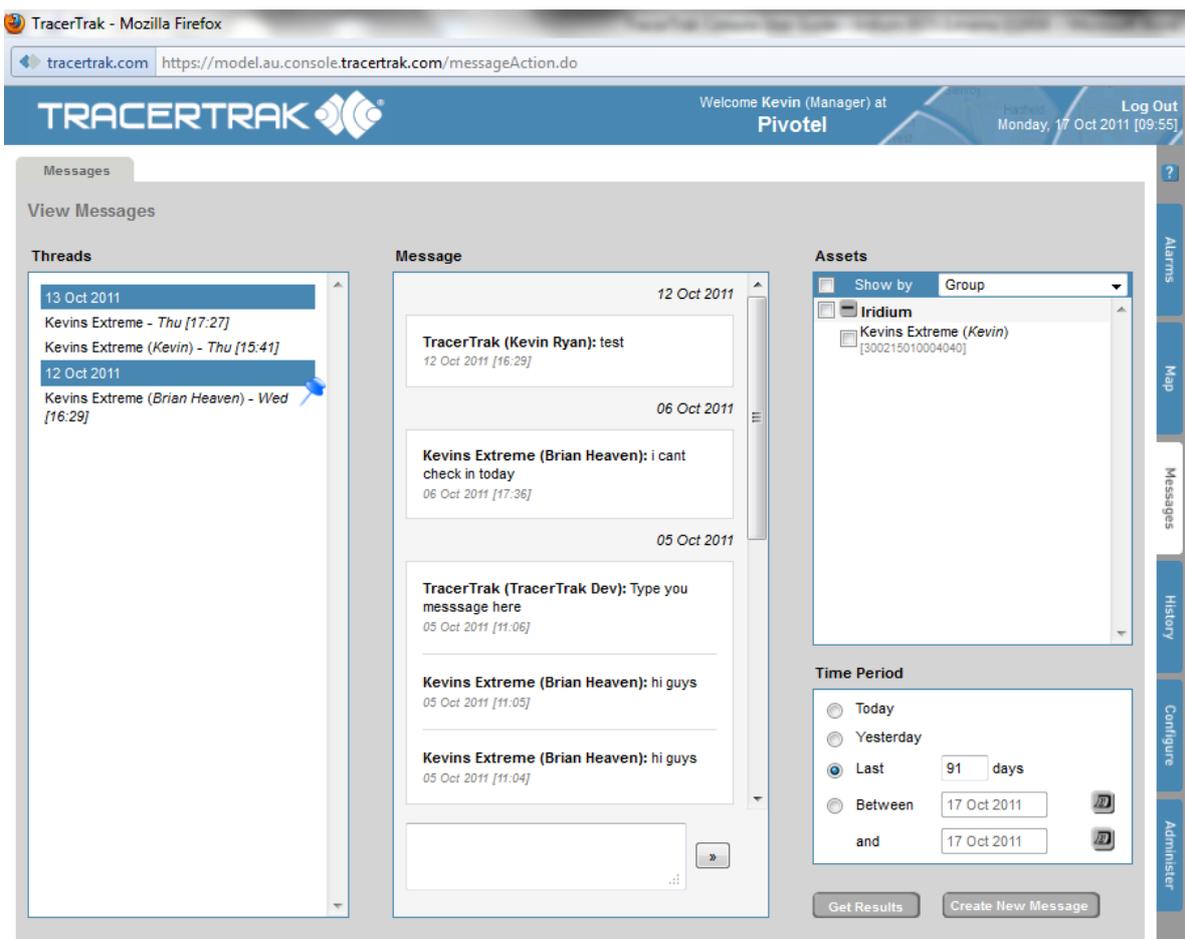
Messaging

You can use TracerTrak to easily send and receive Messages to and from an Iridium Extreme handset. There is a dedicated Messages tab (Figure 15) that makes it easy to manage messaging between remote Personnel in the field and Users in the TracerTrak system.

The TracerTrak system allows you to:

- Compose a new Message to an Iridium Extreme handset/s.
- Read/receive Messages from an Iridium Extreme handset/s.
- Reply to a Message based on an existing Message 'Thread'.
- Filter Messages for easy viewing.

Figure 15 - Messages Tab

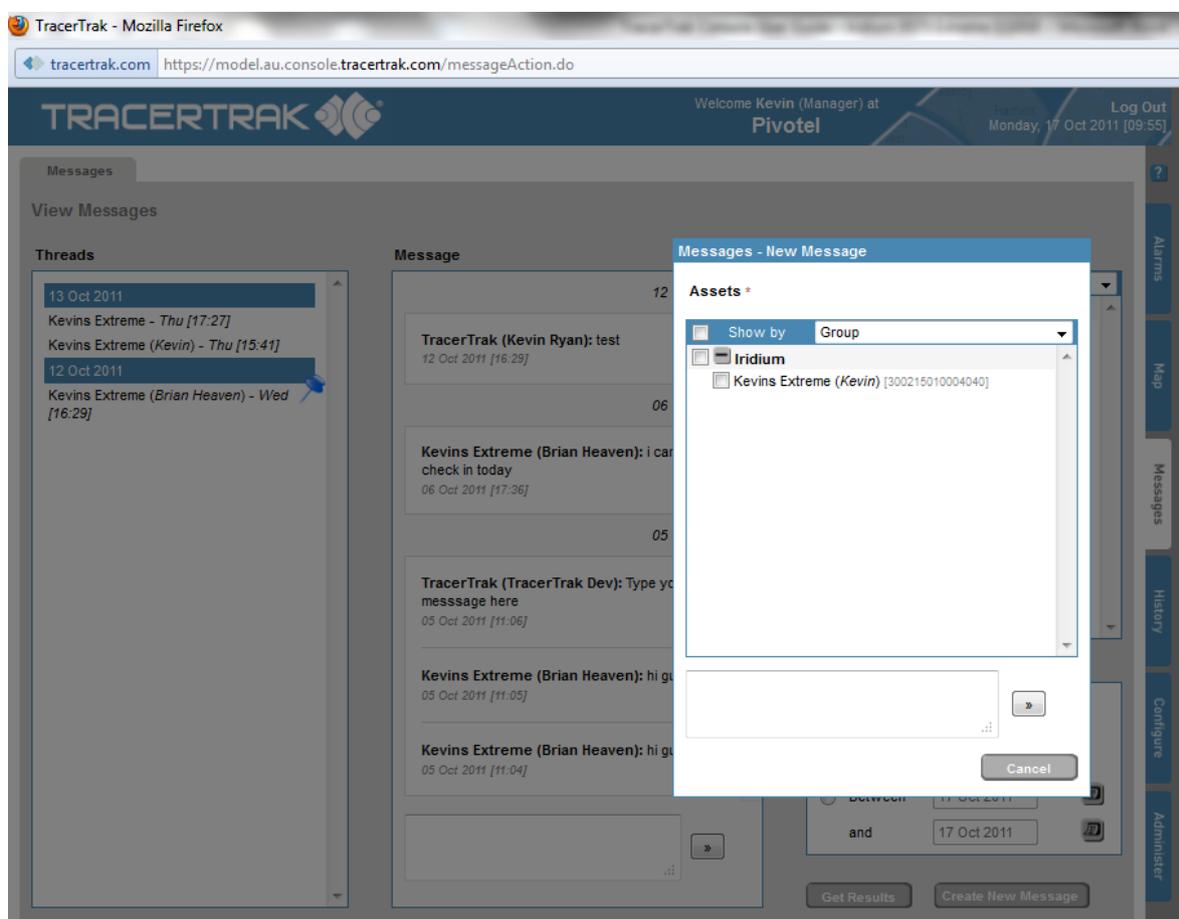


Compose a new Message to an Iridium Extreme handset

To compose a new Message to an Iridium Extreme handset, click on the 'Create New Message' button in the Messages tab. This will bring up the 'New Message' pop-up window. You can choose to sort the list of recipients by Group, Name, Geofence or Profile.

Select recipient/s from the available list (as shown in Figure 16), type your Message text in the dialog box provided and press the  (send) button. If you select multiple recipients, TracerTrak will send the same Message to all of the chosen recipients.

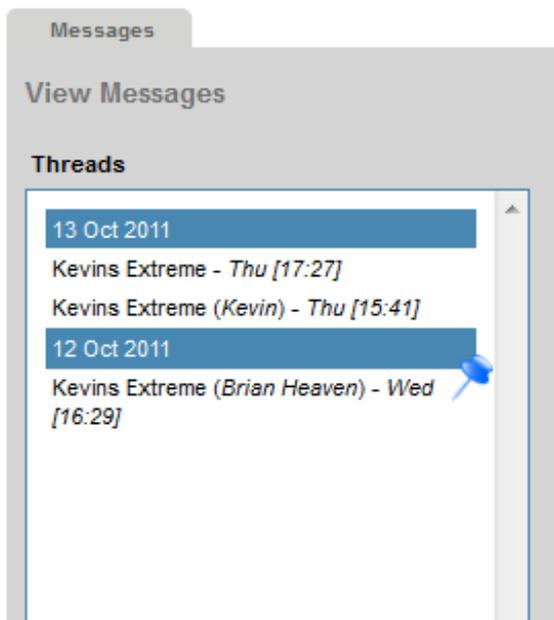
Figure 16 – New Message pop-up



Read/receive Messages from an Iridium Extreme handset

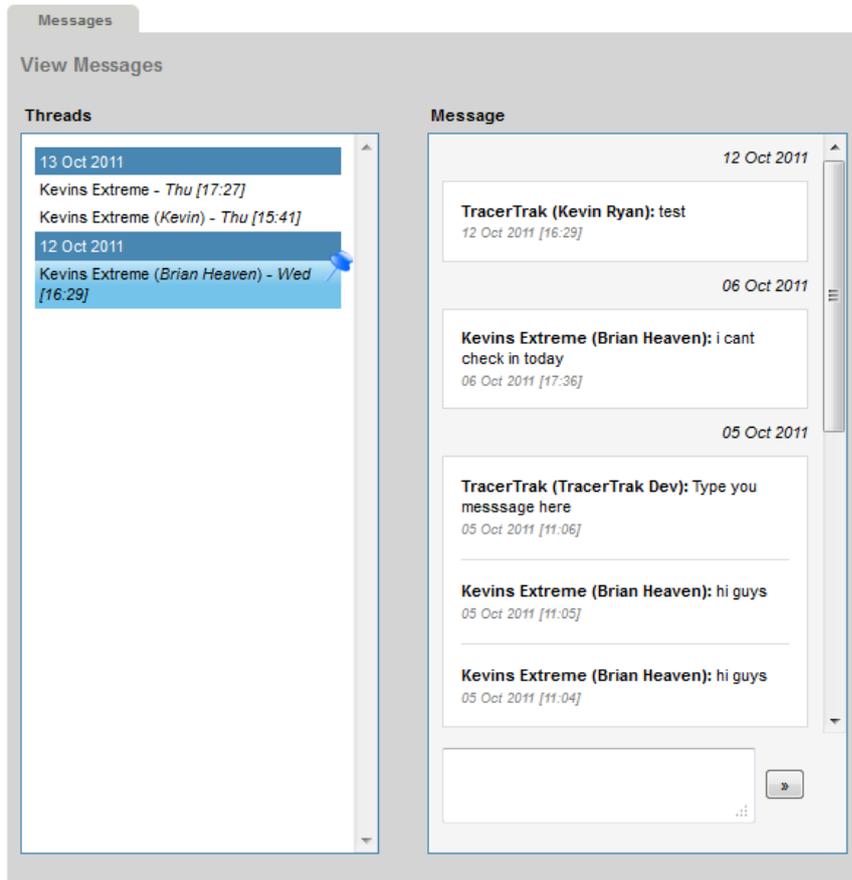
When Messages are received from an Iridium Extreme handset, they are displayed in time/date order on the left hand side of the Messages Tab under 'Threads'. A thread consists of Messages between the console and pair of handset/Person. If there is no Person assigned to the handset, the thread will be between just the handset and console. Assigning the handset to a new Person will start a new thread. The latest Message in the thread is displayed at the top, shown in Figure 17.

Figure 17 – Message Threads



When you select a thread from the list on the left hand side it opens the thread of Messages between Users in the TracerTrak system and the Person in the field, shown in Figure 18.

Figure 18 – Open Message Thread

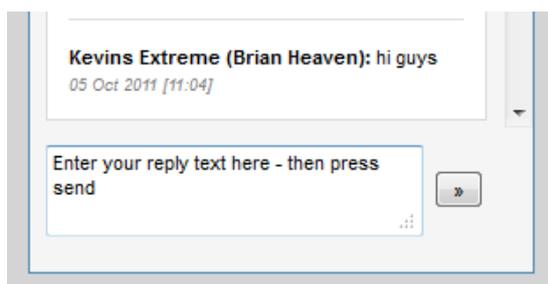


Reply to a Message based on an existing ‘Thread’

To reply to an Iridium Extreme handset and keep your reply Message within the original Message thread, enter the desired text at the bottom of the Message view, then press the

 (send) button, as shown in Figure 19.

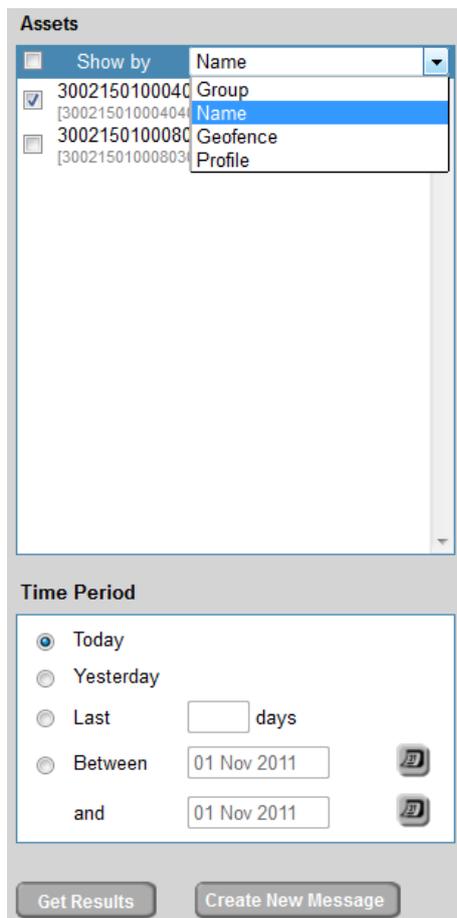
Figure 19 – Reply to a Message Thread



Filter View

There are different ways to Filter the Messages view to make the information shown easier to manage. You can choose which Messages you see based on Group, Name, Geofence or Profile. You are also able to restrict the view based on time period. Once you have chosen the desired Filters, select 'Get Results' at the bottom of the page, as shown in Figure 20.

Figure 20 – Filter View



Assets

Asset ID	Asset Name	Selected
3002150100040	Group	<input checked="" type="checkbox"/>
[3002150100040]	Name	<input checked="" type="checkbox"/>
3002150100080	Geofence	<input type="checkbox"/>
[3002150100080]	Profile	<input type="checkbox"/>

Time Period

Today
 Yesterday
 Last days
 Between
 and