



SARTrack Limited

SARTrack Manual v0.9.770

5 April 2017 (Draft #2)

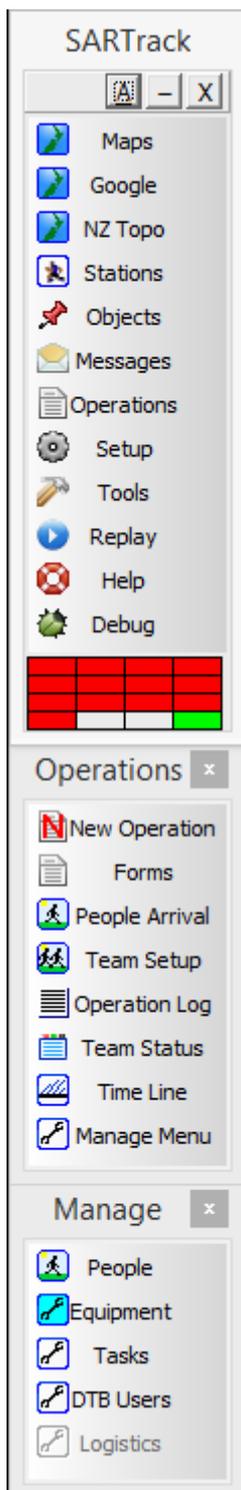
Welcome to the SARTrack Manual for Search and Rescue users.

As you can see, it has a Version number. This number is directly linked to the current Beta version of the SARTrack software, which is changing on a regular basis.

It is therefore important to update this Manual from the SARTrack website, if the current SARTrack version is higher than the version you see on this manual.

The website can be found at <http://www.sartrack.nz/>

The Manual is intended for SAR and Emergency Services users, however Amateur Radio users may also find some parts useful.



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SARTrack Installation

The SARTrack software is a Windows based program, which requires Windows XP or higher to run.

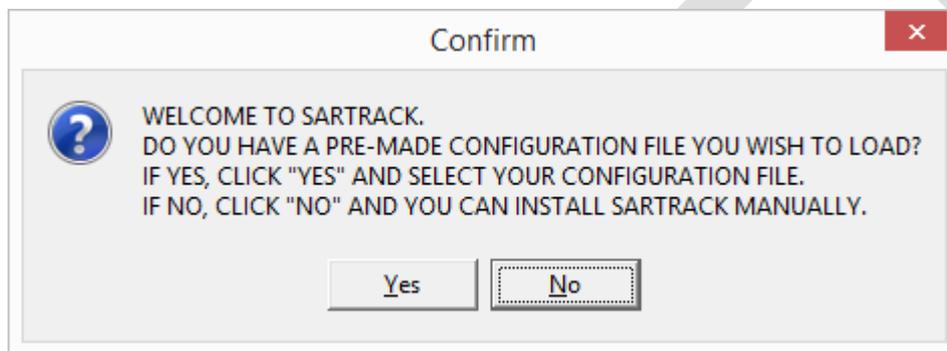
To install the software, download the SARTrack software from the website <http://www.sartrack.nz>
Run the installation program, which will install the software on your computer, *in the current Windows User account*, in the '..\AppData\SARTrack\' folder. That is, it can only be run from this one Windows User account.
The installation program will generate an Icon on the desktop:



Click on this Icon to start SARTrack.

The first time, you will have to work through the Activation steps.

There are two ways: Manually go through the steps, or load a pre-made SARTrack configuration file from a USB stick (More about this later).



If you have been supplied with a pre-made SARTrack configuration file you select 'Yes' and follow the steps to load it.

In all other cases, select 'No' and the program will ask you some questions, which you must answer correctly, so that the right settings are generated.

After the Language is selected from the initial box, please answer the following questions:

- Are you a Licenced Amateur Radio operator? (if not, you must get a Callsign)
- Are you planning to use SARTrack for Search and Rescue? (Select YES)
- Are you in New Zealand? (If YES, and if you are NOT an Amateur Radio operator, SARTrack Limited must assign you a Callsign range to use, else you have to make up your own Callsign)
- New User Agreement (You must accept this legal form to use SARTrack)
- Did your SAR Group already receive a Base Callsign range from SARTrack Limited? (This question will be asked if you are in New Zealand and do NOT have an Amateur Radio Callsign. If you answer YES, must request a Callsign from your Group's manager, if NO, SARTrack will send a Callsign Request to SARTrack Limited.)

At this point, you will see the Activation Form:

The image shows a software dialog box titled "Activation Form" with a close button (X) in the top right corner. The form contains the following fields and controls:

- Callsign (*):** A text input field followed by a spinner box containing the number "0" and the label "SSID".
- Organisation (*):** A text input field containing "SARTrack Limited".
- Contact (*):** An empty text input field.
- Address 1:** An empty text input field.
- Address 2:** An empty text input field.
- Town:** An empty text input field.
- Phone:** An empty text input field.
- Country:** A dropdown menu showing "New Zealand".
- Contact Email(*):** An empty text input field.
- Tactical Name(*):** An empty text input field.
- Version:** Two radio buttons: "HAM Version" (unselected) and "SAR version" (selected).

At the bottom of the dialog are three buttons: "Apply for Callsign", "OK" (with a green checkmark), and "Cancel" (with a red X).

- **Callsign:** Originally, SARTrack was based on the Amateur Radio 'APRS' system, which requires each computer to have a 'Callsign'. This is a 3 to 6 character/digit field, followed by a number (0 to 15) called a SSID.

Currently SARTrack uses this Callsign to identify each SARTrack computer, and it absolutely imperative that every computer has a **unique** Callsign. Never should a SARTrack client or SARTrack Database Server have the same Callsign/SSID as another one.

The following fields speak for themselves, but:

- **Contact Email:** Make sure this is correct! SARTrack uses this email address to communicate with you when you send a 'Bug Report' or apply for the mailing lists. It will NEVER be shared with anyone else.
- **Tactical Name:** This is the name which identifies your computer on all Maps and forms, and in the Operations Log. You can make it anything you like, but make it obvious whose computer this is.

Once you click OK, another important window will appear: The SARTrack **GroupID**.

All SARTrack computers are linked to each other based on this GroupID, which is a number between 1000 and 26000. By default, SARTrack will generate a random number here for you.

But, once a GroupID has been selected by your organisation, you must enter that specific ID for your computer. If the GroupID is not correct, you will not be able to connect your SARTrack client to the other computers of your organisation.

Note: New Zealand users will get a GroupID allocated by SARTrack Limited.

Once you click OK on this window, SARTrack will email the Activation details to SARTrack Limited.

After this you *may* get one more question:

- **Tablet PC?**

If Windows detects you have a Touch Screen, it claims it is a Tablet PC. However, if you install on a normal Laptop, select **No** here. Only select Yes if this is a Tablet. This will change some of the buttons (especially the Map window) to a much larger type, but it is not recommended for laptops.

You are done!

SARTrack is now running. But, you may want to connect SARTrack to a Database Server, or to other communication devices. You can read more on this in the following chapters.



Note: After the first installation for your organisation and after you have modified all Settings to your liking, you can **export** the final configuration file to a USB stick. This will greatly simplify the installation of following SARTrack computers for your organisation.

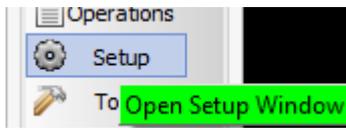
This exported file will contain only these settings which will be shared across all SARTrack computers. It will not include Callsign, Tactical, and personal information. It will also not include connection settings to communication devices. But it will include the **GroupID**, the setting “**Use Database Server**” and many other global settings.

Also: You can pre-set a **LOCK** on the Setup Menu. Once this is done, it requires a Password to get into the Setup. This LOCK & Password will be exported with the configuration file, so that the end-users of the new SARTrack installations cannot change the settings, unless they have the password.

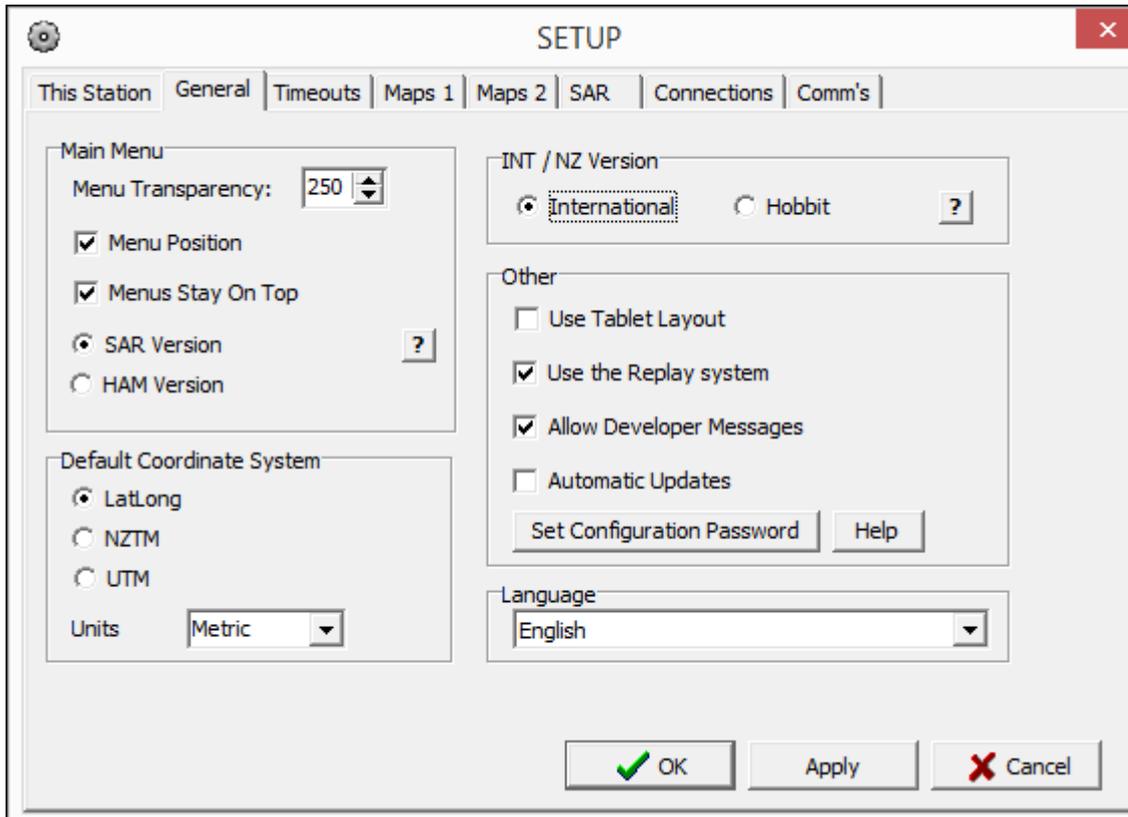
To Export the configuration file: Click on the Tools button in the Main Menu and select Export. The option to LOCK the Setup can also be found there.

Setup Window

To open the main Setup window, click on the Setup button in the Main Menu:



This will open the window:



The Setup window has multiple Tabs which you can click on to open the specific form. The default Tab is the 'General' Tab seen above.

- **This Station:** All settings relating to this SARTrack PC including the Callsign, Tactical and Location.
- **General (As above):** All the generic settings. You can also override some default settings which were generated during the initial installation here.
- **Timeouts:** This form allows you to set Timeouts and Expiry for incoming Radio Trackers and other Stations or Objects. When a Timeout occurs for a given item, it will get a yellow label on the Maps and lists to indicate a Timeout has occurred. The Expiry system is not used in SAR mode, as this would completely delete an Expired item, and this is not allowed in SAR mode.
- **Maps1 and Maps2:** These are all settings relating to the Map windows. Most of the default values should be okay, but you can try some of the items to fit your taste. There are some important ones:
 - o **Max Track Parts:** This value, when changed, will change across all SARTrack computers connected to the Database Server. It sets the maximum 'track parts' or 'way points' for any Tracker object, and this includes imported GPX file from GPS devices. What this means is that if this value is exceeded by any Tracker (or imported GPS track) it will restart at the beginning (e.g. it is circular) and the first positions of the original track will be overwritten. If you import GPS tracks, and they seem incomplete, you may have to increase this value, but note this will be set across all connected computers.
 - o **Track type:** This will change the way the Tracks look on the map.

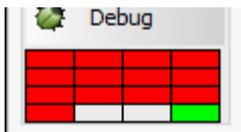
- **Label:** How the Labels look on the Map. *Cut-off level* sets the point after which the labels will no longer show when zooming out.
- **Maps 2: Show Maps in Menu:** In the OSM Map window you can select many different Map Types (Topographic, Satellite, Weather Overlays, etc.). As this Map Types list can get very long, you can select here which Maps should be visible in this list. You can simply hide the ones you never use.
- **COMM'S:** Communication related settings. These are mostly related to APRS connections and will only have an effect if this computer is connected to an APRS Server or Radio Modem (TNC). See the Connection Setup for more details on this.
 - **Accept External Logs:** Accept Log entries from APRS Server.
 - **Transmit Log entries:** Transmit over APRS Server (this includes all incoming Log entries which arrive via the Database Server, they will then be forwarded to the APRS Server. This is no longer recommended.
 - **Send Objects over Radio:** This will cause SARTrack to transmit all local and incoming Objects to transmit over a connected Radio Modem (TNC). This is not recommended as it will overload the radio frequency. However, it does make it possible to have remote APRS connected devices to receive Objects on their Map screen.
 - **Digipeater:** When ON, SARTrack will act as a APRS Digipeater, and will re-transmit all incoming packets from a Radio Modem (TNC) back over the radio channel. ONLY recommended if you know what you are doing!
 - **Radio Path:** Default APRS path WIDE3-3 for SAR operations where it is required to get data via multiple portable and fixed Digipeaters. Else WIDE2-2.

The Setup window 'SAR' Tab:

The screenshot shows the 'SAR' tab of the SARTrack Setup window. The 'GroupID' is set to 12345. The 'Use Database Server' checkbox is checked. The 'Filter Name' is set to 'default' and the 'Callsigns' are set to '*'. The 'Map: Use Extended Polyline' and 'Automatically Create Team' options are also checked.

- **SAR:** Some important settings can be changed here:
 - **Group ID:** The GroupID links all SARTrack clients of an organisation together (via the Database Server) The ID should have been set during the initial Activation of SARTrack. However, if it is not correct, or you need to connect your SARTrack client to the Database of another organisation, you can change it here. It is recommended to restart SARTrack after changing this.
 - **Use Database Server:** This should be checked, if you are using SARTrack in conjunction with a Database Server (Internet or Local). This is the strongly recommended way of using SARTrack in SAR mode.

Connection Setup

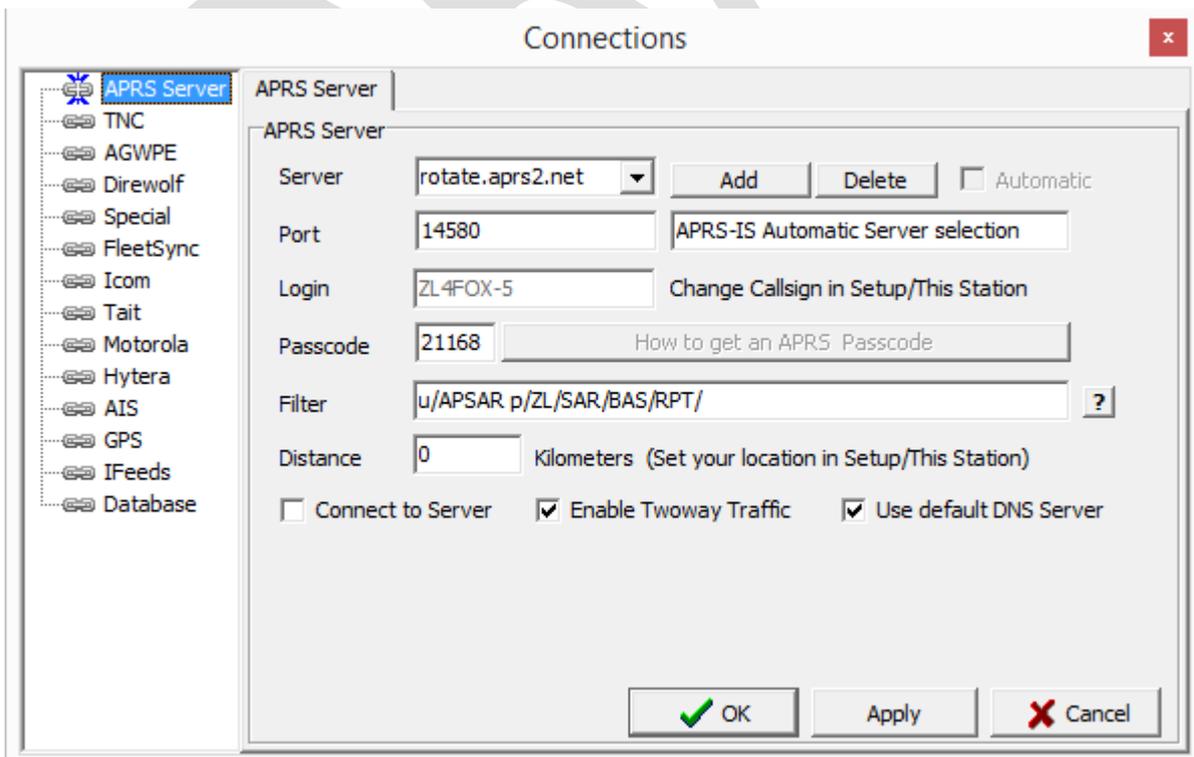
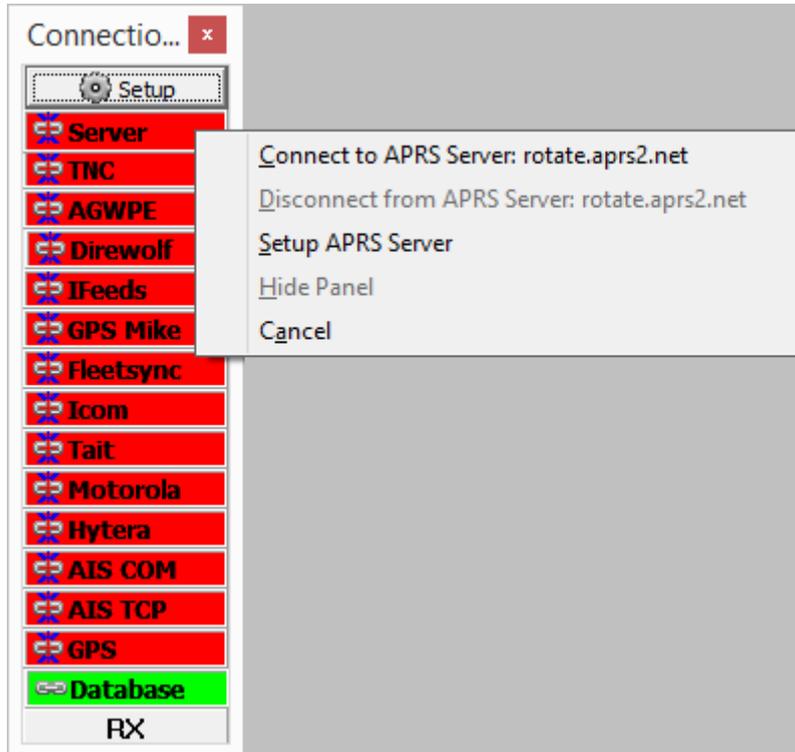


You can open the Connection Menu by clicking on the mini connection panel at the Main Menu:

This will open the **Connection Menu**:



By clicking on the **Setup** button you can open the **Connection Window**, but you can also open this window directly for a specific Connection *entry* by right-click on one of the panels:



There are many different devices SARTrack can connect to, for Tracking and communication purposes.

- **APRS Server:** This allows the connection to an APRS Server, like the amateur radio APRS-IS network. This is only of interest if you are using APRS based Radio Trackers which are received via this server. Do NOT use this to connect SARTrack computers for operational purposes; you should use a SARTrack Database Server for this.
- **TNC (Radio Modem):** This allows the direct tracking of APRS Trackers via radio, but it also allows two-way Messaging communication with an APRS device capable of this (for example, an AP-510 APRS device in combination with a Smartphone)
- **AGWPE and Direwolf:** These are APRS software interfaces (running in the background) which connect to APRS Radio based tracking devices.
- **Special:** This form allows the connection to some generic GPS Microphones, which transmit their GPS position over the Voice radio channel.
- **Fleetsync, Icom, Tait, Motorola and Hytera:** These are commercial radio systems which transmit their GPS based position over the voice radio channel, either in analogue mode or in digital mode. SARTrack will decode this data, and overlay the position of the radios on the Maps.
- **AIS:** This is a radio based vessel (boats) location system used all over the world. SARTrack can decode these both direct via an AIS receiver, or via an AIS Internet site, and overlay the position of the vessels on the Maps.
- **GPS:** This allows the connection to a raw GPS feed, which will allow SARTrack to transmit the position of the computer via APRS or the Database Server.
- **IFeeds:** This system allows an Internet based connection to Satellite Tracking websites, to overlay Satellite based trackers on the Maps.
- **Database:** This connects the SARTrack Client to a SARTrack Database Server. It can be an Internet based Server or a Local Database Server (on the local LAN or WIFI). You can connect to the free SARTrack Internet based Database Server in Germany (if your organisation has been set up first) or you can connect to a Local Server in 'Automatic' mode, that is, SARTrack will connect to the local server on the same LAN/WIFI automatically. If the server is NOT on the same LAN/WIFI, you must enter the IP address here (but this is not recommended, as the IP may unexpectedly change). Or you can enter the domain name of your own organisation's Internet based Database Server. In all cases, you need a Login and Password set up by a Supervisor on the selected Server.



To use this, you must enable "use Database Server" in Setup>SAR.

Most local devices use a Windows 'COM' port to connect. What this means is that when the USB driver for the device is installed, it will generate a 'Serial COM port' in Windows.

SARTrack requires this COM port to connect to the device. Therefore, you need to know which COM port is assigned to the required device. So find this, in **Windows Control Panel**, lookup '**System**', and the '**Device Manager**'. In the **Device Manager**, under '**Ports (COM & LTP)**' you should be able to find the assigned COM port, which you can then enter in SARTrack.

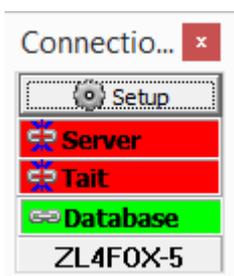
Other COM port settings required should be available in the User Manual of your device.

It is possible to connect multiple devices on a single SARTrack PC. For example, if you use both an APRS based Tracking system (via TNC/Radio Modem) and a Radio based Tracking system (Tait, Icom, Motorola, etc.) you can connect these both to the same PC using two different COM ports.

But, you can also decide to use two different SARTrack PC's to do this, and when these are both connected to a SARTrack Database Server, the final result will be the same: All data will be available on all connected SARTrack computers.



*Did you know: You can disable selected Panels in the Connection Menu, so that you only keep those you actually need: **Right-click** on a Panel, and select 'Hide this Panel'. This will make this Menu more manageable.*

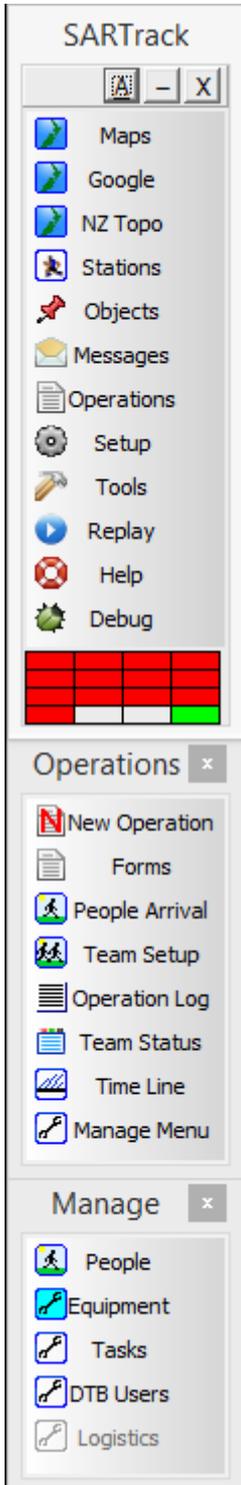


Basic Operation of SARTrack

SARTrack is intended to be used with an **external mouse** with **mouse-wheel**.

Using an external mouse will greatly improve the usability especially when using the Map.

SARTrack uses both the right and left mouse buttons, which often have different functions.



The Main Menu

The SARTrack Main Menu is a 3-part Menu Bar from which all other windows can be opened. The Menu Bar always stays on top. There are three separate parts: **Main**, **Operations** and **Manage**. They are normally linked together, but can also be separated. In addition, there is a **Connection Menu** bar, which will open when you click on the mini connection panel at the bottom of the Main Menu.

You can place any windows (including the Menu Bars) wherever you want on the screen, and these positions will be saved for the next session.

 *Clicking the [-] button will minimize **only** the Main Menu. Clicking the [A] (All) button will minimize **all** SARTrack windows.*

Every SARTrack Window moves independently, and has its own Menu bar at the top, with settings only relating to that specific window.

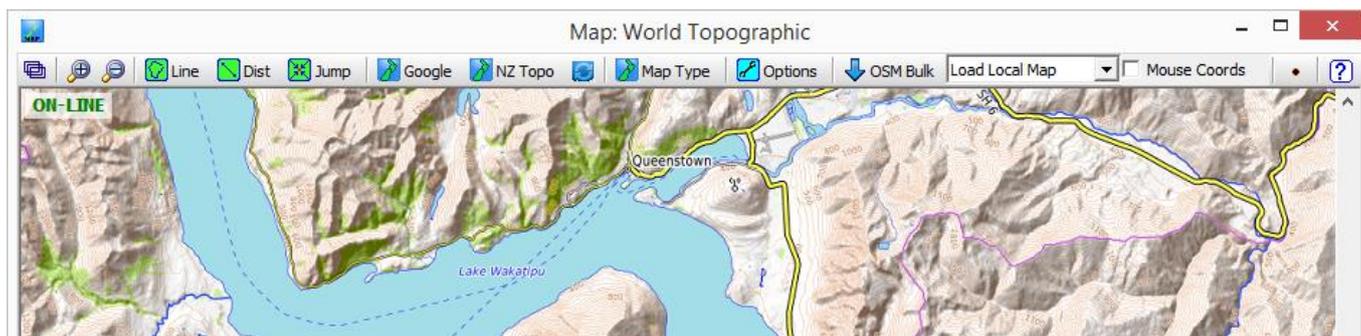
The advantage of this system is that you can position each window anywhere on the screen and in case of an extended desktop (for example if you connect an additional Monitor or Video Projector) you can, for example, transfer the Map window to the external monitor/projector, and have all other windows you use on the laptop screen itself. And as each window has its own menu bar, it is much easier to locate the required settings for this window.

 **Every button or entry field will show a green Hint box when you hover the mouse over the item. This will give you additional information on its function.**

In the following pages we will show most of the available SARTrack windows, with their options.

For step-by-step details on using SARTrack run a SAR Operation, go to [Operations](#) on page 26.

The OSM Map window



The OSM ('OpenStreetMap') window is the primary and recommended Map window in SARTrack. Basic operation in the Map window follows standard Windows conventions, and works in the same way as Google Maps.



*The Map Window is intended to be used with an **external Mouse** with a **mouse-wheel**. While it is possible to operate the Map with a Laptop "mouse-pad", this is not recommended!*

To **move** the Map, press the **left** mouse button and drag the map and release the button when ready. To **zoom** the Map, roll mouse **wheel**. Rolling forward will zoom in and rolling backwards will zoom out.

It is also possible to zoom using the (+) and (-) buttons in the top/left corner of the Map window, if a mouse wheel is not available (not recommended). Additionally, you can zoom in – and out with the '+' and '-' keys on the keyboard.

Pressing the **right** mouse button anywhere on the Map will open a **Pop-up Menu**. The menu items which appear in this menu will depend on what object on the Map you have clicked on.

For example, when you right-click on a Station or Object **Icon** (*not the label*) on the Map, one of the available options will be "Edit Station". If you select this entry the Setup Window will be opened at the Stations tab, and you can edit, amongst other things, the Tactical Call sign and Track Colour of the station. Also see '[Edit Object](#)' on page 17.

Other options available when an *Icon* is selected:

- **Show/Hide Track:** Here you can hide or show the coloured Track of any Station or Object on the Map. By default all tracks are shown.
- **Follow on Map:** When selected, the Map will start to follow the selected Station/Tracker. The Station/Tracker will stay in the middle of the Map. To stop this, select "Stop Map Following".
- **Hide Object:** This will hide the Object on the Map (but will not delete it)
- **Move Object:** This will allow you to move the Object to a new position.

Additional options which are available when right-clicking anywhere on the Map:

- **Show All Tracks:** This will show all tracks, if they have previously been hidden.
- **Show Track by Date:** This will allow you to *only* show tracks in a certain date range, or to **hide** all tracks. Afterwards you will be able to selectively show *only* tracks of Stations or Objects you wish to see.
- **Create Object:** this will open the Create Object window, where you can add a new Object to the Map at the selected location.
- **Create IPP/LKP/PLS Circles:** This will open the **Statistical Circle** window, where you can add a new Circle system at the selected location. (Details on this in [Statistical Circle](#) on page 44)

- **Show Mouse Coordinates:** When selected, a semi-transparent window will be attached to the Mouse cursor, which shows the geographical position of the cursor, in Latitude / Longitude format, and also in the (user-selected) default coordinate system. The New Zealand NZTM coordinates show the 'shortcut' 3 digit coordinates in red (but it is strongly recommended NOT to use this system anymore). The 'Show Mouse Coordinates' option can also be selected/de-selected at a Menu button at the top of the Map screen.

At the top of the Map window, its Menu Bar shows other available options:

-  **Line:** This enables the drawing of a coloured polyline on the map. This can be used to draw search areas.
-  **Dist:** This will show the distance between two points on the map, including the direction.
-  **Jump:** This will jump the Map position to the coordinates entered.  *However, it is much easier to open the Station or Object window, right-click on 'Show Station/Object on Map', after which the Map will jump to that location.*
-  **Google:** This will open the Google **Static** Map window at the same location as the OSM Map window. *However, the use of the Google Map window is no longer recommended for the following reasons: (1) Every time the map is moved or zoomed, the entire map will be re-downloaded from the Google server. (2) Due to the way the map is supplied by Google, its location in the world is not totally accurate, and as a result the overlays (Icons, polylines) may not show in the correct location. The Google Static Map is only left in SARTrack because of requests of end-users.*



*If you require a **Satellite Map**, use the Map Type '**ArcGIS World Satellite**' instead.*

-  **NZ Topo:** This item only shows when the New Zealand Topographical Maps package has been installed. This system is no longer recommended because of the slow rendering of the map, and because the map package has not been updated for many years.



*If you require the New Zealand Topographical maps, use the OSM Map Type '**New Zealand Topo**' instead.*

- : This button will reload all Map Tiles currently visible on the Map.
- **Map Type:** Select here the OSM Map you wish to display. There are two types of maps: The primary (Base) maps, and the Overlay Maps. You can select only one base map, but you can overlay more than one Overlay map. Some overlay maps are special, for example Weather maps, which will update themselves regularly. All OSM maps (excluding weather maps) are saved to disk after initial download from the Internet OSM servers. This means that they will be available for off-line use afterwards.



Do make sure to disable Overlay maps when you no longer need them, because they will slow down the rendering and downloading of the base map, even when they themselves are not visible.

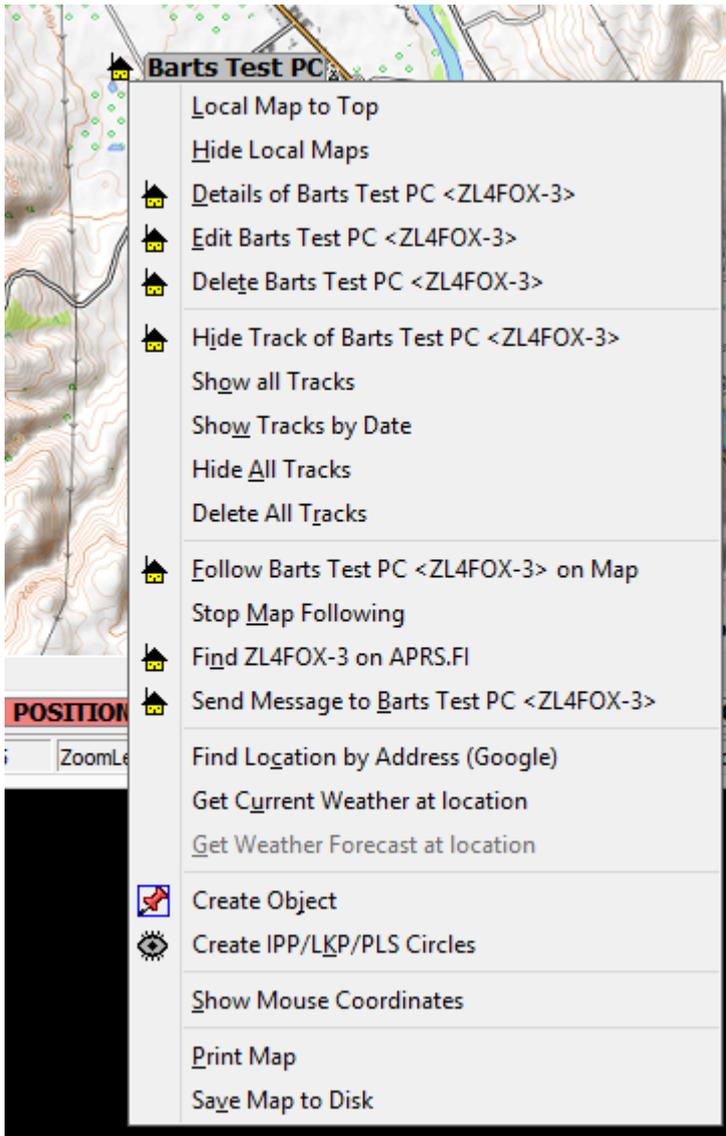
-  **Options:** This pull-down menu has many additional items you can select to change the way things are displayed on the map. In addition there are entries to rebuild OSM or 'local' Maps, and there are entries to import external GPS tracks and waypoint, and to export existing tracks, both in GPX format.



*When importing GPS tracks with many waypoints, make sure your '**Max Track Parts**' value is high enough to accommodate the imported track. You can change this in 'Setup>Maps 1. See page 7.*

-  **OSM Bulk:** This will open the OSM Bulk Download window. Here you can select an area on the map, and download all OSM Map Tiles in the selected area in a selected zoom range. This will make these Map Tiles available for off-line use. However, using this option may require the download of thousands of Tiles, may take a long time, and is actively opposed by some OSM Web servers.
- **Load Local Map:** You can install your own local Maps on the computer in the form of image files, and with a supporting .INF file containing the details of the map. There is an explanation file on this in the default local Map directory: '..\Documents\SARTrack\Maps\How to make your own Maps.txt'.
- **Mouse Coords:** When checked, will display the Mouse Coordinates window which moves with the mouse, and shows the geographical coordinates of the mouse. More details [here](#) (Page 13).

The Map popup window



When right-clicking on an **Icon** (not a label) of any Station or Object, the Popup Menu on the left will appear.

- **Local Map:** A Local Map is one you have manually added to SARTrack. They can be overlaid on top of the OSM (OpenStreetMap).
- **Details off...:** This will show the details of the Station or Object.
- **Edit...:** Will Edit the Station or Object.
- **Delete...:** This option is normally not allowed when you are in an Active Operation.
- **Hide Tracks of...:** This will hide the Tracks of this Station Or Object only.
- **Show All Tracks:** The will re-enable the Tracks of all Stations and Objects.
- **Show Tracks By Date:** You can select to see only these Track parts within a certain date and time range. This will enable you (for example) to only look at the Tracks of a Team for a certain day of an Operation.
- **Hide All Tracks:** This will hide all tracks of all Stations and Objects. You can use this to clear the map, and then (for example) show **only** the Tracks of a certain Station or Object.
- **Delete all Tracks:** This is not allowed during an Active Operation.
- **Follow on Map:** This will cause the Map to follow the moving Station or Object.
- **Stop Map Following:** This will stop the Map of following a Station or Object.
- **Find on APRS.FI:** Will open the (internet) Website www.aprs.fi where you can get lots of

information on the selected Station or the Object of the Station owner.

- **Send Message to...:** This option is only visible when the selected Station of Object is capable of receiving (and possibly sending) a Message. In case of an APRS Station, normally two-way Messaging is available. In case of an Object, depending on the commercial Radio type, it may be possible to send either a full text message, or a 'Static Message', which is a pre-encoded message which will appear on the screen of the radio, based on a simple code which is transmitted. In the latter case, all radios must be **pre-programmed** with a list of short static messages, and the **same** messages must be programmed in SARTrack, in the **Static Message Edit** window. This window can be opened from the [Connection Window](#) (Page 9), at the specific Radio type (e.g. Icom, Tait, Motorola, etc.)
- **Find Location By Address:** This uses Google to locate any address in the world, with the possibility to automatically generate an Object (Icon) on the Map at the location. Note the Google information may not always be accurate!
- **Get Current Weather at Location:** This uses the 'OpenWeather' Internet Server to request the weather at the nearest possible location. (Note: This is NOT the same as the APRS based Weather Stations)
- **Get Weather Forecast at Location:** This is work-in-progress and not finished yet.
- **Create Object:** This will [create an Object](#) at the selected location on the Map.
- **Create IPP/LKP/PLS Circle system:** This will [create a Statistical Circle system](#) (Page 44) on the Map at the selected location.
- **Show Mouse Coordinated:** Will activate a small window which moves with the mouse cursor and shows the coordinates of the mouse cursor.
- **Print Map:** This will print the Map as shown in the Map window at that moment.
- **Save Map to Disk:** Will save a copy of the current Map to disk, where you can then [attach it to a Task](#).

Stations and Objects

SARTrack is originally based on the Amateur Radio [APRS](#) (Automatic Packet reporting System) system. APRS uses a system of 'Stations' and 'Objects', where a Station is a unique entity with its own 'Callsign' and is not required to have a location, while an Object is an item on the Map with its own ID and details, but is owned by a particular Station.

Stations can be either have no location, be at a fixed location, or be moving (as a Car or personal Tracker) while in the amateur radio world, Objects are generally static.

The SARTrack client is a Station, and must therefore have a unique callsign.

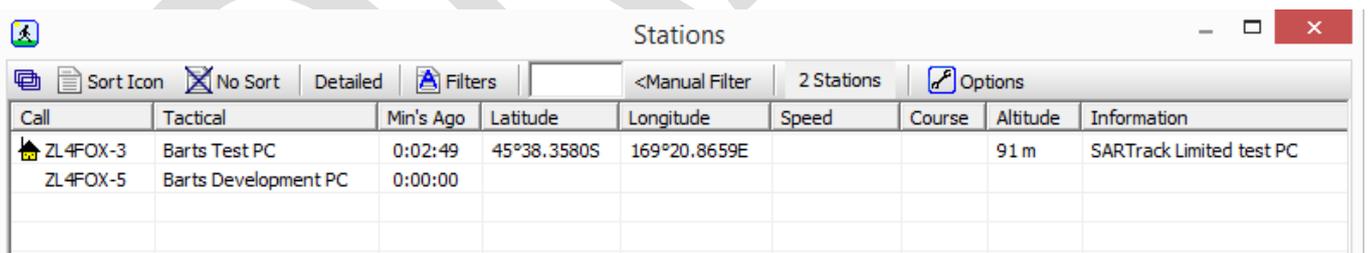
From SARTrack, you can generate fixed Objects on the Map, but SARTrack also uses Objects in a unique way: It can decode non-APRS Trackers (Commercial radios, Satellite trackers, AIS Vessel trackers, etc.) and convert these into moving APRS Objects which can be shown on the Map, and shared by all other connected SARTrack clients and other APRS programs (if the Objects are transmitted over the APRS Internet network).



Note: In SARTrack there are currently two separate windows for Stations and Objects. This may be sometimes confusing, if in a SAR operation you may have Station Trackers but also Object Trackers, as these are not shown in the same window.

In addition to this, SARTrack has a unique option to link a Station or an Object to a SAR Team. Once this linkage is established, all tracking information from the Station or Object will be linked to the position of the Team in the field. Currently the only way to link a Station or Object to a Team is by [editing these](#) (from the Map or from the Station / Object window), and [set the linkage](#). See page 19.

Station Window



The screenshot shows the 'Stations' window in SARTrack. The window title is 'Stations' and it has standard window controls. The interface includes a toolbar with icons for 'Sort Icon', 'No Sort', 'Detailed', 'Filters', '<Manual Filter', '2 Stations', and 'Options'. Below the toolbar is a table with the following columns: Call, Tactical, Min's Ago, Latitude, Longitude, Speed, Course, Altitude, and Information. The table contains two rows of data:

Call	Tactical	Min's Ago	Latitude	Longitude	Speed	Course	Altitude	Information
ZL4FOX-3	Barts Test PC	0:02:49	45°38.3580S	169°20.8659E			91 m	SARTrack Limited test PC
ZL4FOX-5	Barts Development PC	0:00:00						

There are two versions of the Stations window, the simple version (shown above) and the *detailed* version with more information.

All Stations will have a Callsign (6 characters/digits + an SSID (-1..-15)) and a Tactical name, which is a unique SARTrack field which, if it exists, will show on all Maps and lists instead of the callsign.

By *right-clicking* on a Station the following popup-menu will appear:

Call	Tactical	Min's Ago	Latitude	Longitude	Spe
ZL4FOX-3	Barts Test PC				
ZL4FOX-5	Barts Developme				

- Details of Barts Test PC - ZL4FOX-3
- Edit Barts Test PC - ZL4FOX-3
- Hide Tracks of selected stations
- Show Tracks of selected stations
- Show Barts Test PC - ZL4FOX-3 on Map
- Follow Barts Test PC - ZL4FOX-3 on Map
- Delete Barts Test PC - ZL4FOX-3
- Send Message to Barts Test PC - ZL4FOX-3

Some notes on the available entries;

- **Show Station on Map:** This will jump the Map to the location of the Station, if this Station has coordinates. *Note that a Map window must be open for this to work.*
- **Follow Station on Map:** This will cause the (open) Map to move with the moving Station. You can disable this in the Map window, right-click anywhere and select 'Stop Map following'.
- **Delete Station:** This is not allowed when in an Active Operation.
- **Send Message to Station:** This will open the APRS [Message window](#), (page 20) with the callsign already filled in. You can only send APRS messages to Stations which have this capability.

Object Window

Object Information

No Sort Filter <Manual Filter Broadcast Interval 15 Broadcasting 2 Objects BroadCast Now 3 Objects

Name	Tactical N...	Status	Latitude	Longitude	Last Change	Owner	Information	Last Heard
L32701153	PLS 1	Active	45°38.3452S	169°20.8929E	12 Feb 16:17	ZL4FOX-5	IPP Circle system	19 Feb 13:37:58
L95408066	LKP	Active	45°39.0645S	169°16.5804E	16 Feb 16:20	ZL4FOX-5	IPP Circle system	19 Feb 13:37:58
Test Obj	Test Object	Active	45°37.0791S	169°18.8975E	19 Feb 13:52	ZL4FOX-5	My Comment	19 Feb 13:52:21

Edit

Hide

Delete

Delete All

Import GPX

Objects have an Icon, a 9 character Object ID field, and a Tactical name, which is a unique SARTrack field which, if it exists, will show on all Maps and lists instead of the Object ID.

An Object is either Active (it is visible on the Map) or Inactive (Hidden) which means it is not visible on the Map, but it still exists in the database.

Normal *static* Objects are re-broadcasted by the Station *owner* (e.g. SARTrack) on a regular basis, as they do not change position. By default this is done every 15 minutes, only over the APRS network (normally not over the radio network).

SARTrack *moving* Objects (Commercial radios, satellite trackers, etc.) are broadcast when new position data comes in.

You can activate or deactivate (Show or hide) Objects by using the buttons, or right-clicking on an Object.

Deleting an Object during an active Operation is not allowed.

Creating and editing an Object

Object Add / Edit

Object Name: I40011008 Automatic TeamID=246007209

Tactical Name: Team 1 Human/Person Overlay

Object Type: Team

Comment: Icom Radio Tracker

Coordinates

Lat / Long UTM NZTM

Latitude: 45°38.3343S

Longitude: 169°20.8794E Altitude: 0 meter

Track Color:

Attached Files:

Add Coordinates to Label Add Speed and Altitude to Label

Permanent Object Broadcast Object

You can create an [Object](#) (Page 16) by right-clicking on a location on the Map, and select '**Create Object**'. This will open the 'Object Add / Edit' window on the left.

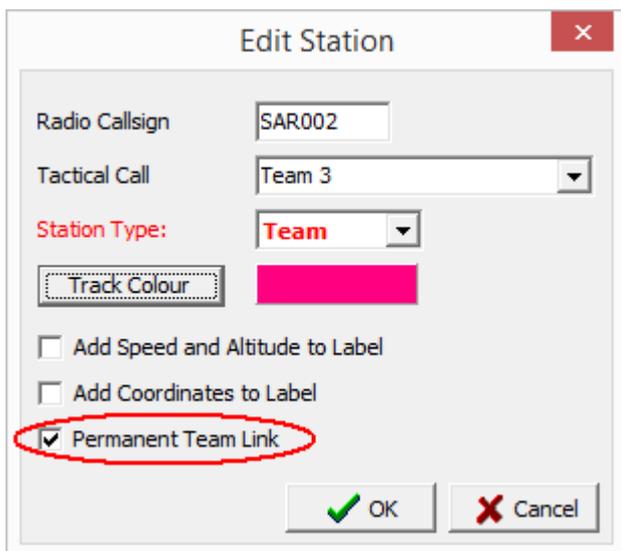
- **Object Name:** This is a 9 character / digit field. If you are planning to use the *Tactical Name*, you can set the Object Name to 'Automatic' to save time.

- **Tactical Name:** This is a free-form field, but in it must be unique, that is, no other Object should have the same Tactical Name.

- **Icon:** You can select from a list of APRS based Icons from the pull-down list. When the Object is a 'Clue' it is worthwhile to find an Icon which indicates this. Note: When this Object is marked as being a 'Team', SARTrack will initially change it to a 'Person'.

- **Overlay:** Some Icons are designed to have an Overlay, which is a single character or digit. You can therefore have multiple Objects on the map, each with the same Icon, but with a separate overlay (e.g. 1, 2, 3 or A, B, C) which is useful for Clues. *Note: Many Icons do not allow an Overlay.*
- **Object Type:** This is an important selection: An Object can either be: a **Team**, **Clue**, or standard **Object**. When you select the Object to be a **Team**, SARTrack will try to create a Team based on the Tactical Name, or it will try to link the Object to an existing Team. For more details on this important issue, please refer to [Team Linkage](#) on page 19.
- **Comment:** An optional Comment for this Object.
- **Latitude and Longitude:** This is the location of the Object and you can change it here, **except if it is a live Radio Tracker** which transmits its own position.
- **Track Colour:** When selected, this will be the Track colour of the Object (if it will have a Track). If this Object is marked as being a 'Team', the Tab colour in the Team Setup and Team Status windows will also be this colour.
- **Attached Files:** You can now attach any file to an Object. For example, if the Object would be a **Clue**, you can attach a picture or any document to this Clue.
- **Broadcast Object:** When checked, this will broadcast this Object over the **APRS** network (if one of the connected SARTrack clients is connected to an APRS server). *This has no effect on the distribution of the Object to all other SARTrack computers via the Database Serve, which always occurs.*
- **Permanent Object:** If you check this box, this Object will become Permanent, and will also still exist when you start a New Operation. For example, if this is set as a Standard Object, and you want to mark some Huts in remote locations, you can create these as Permanent, so next in the next Operation they will be again visible on the Map. But if the Object is set as a Team, a Permanent Link is created between the Object ID, and a Team with the same Tactical name. This will enable Permanent Links between Radio Tracker Objects and a Team name. Please refer to [Team Linkage](#) at page 19.

Edit Station



The screenshot shows the 'Edit Station' dialog box with the following details:

- Radio Callsign: SAR002
- Tactical Call: Team 3
- Station Type: Team
- Track Colour: Pink
- Add Speed and Altitude to Label:
- Add Coordinates to Label:
- Permanent Team Link: (circled in red)
- Buttons: OK, Cancel

Once a Station exists (it has been heard for the first time), you can edit it by right-clicking on the Map Icon or the Station Window entry, and select 'Edit Station'.

In the Edit Station window, the following options are available:

- **Radio Callsign:** This is the unique Callsign required for every Station, with a maximum of 6 characters or digits and an optional SSID (1..15) **You cannot change this.** *To change your own callsign, do this in 'Setup>This Station'.*
- **Tactical:** This is the SARTrack Tactical name of this Station. In the above example, it has been manually entered, and is not linked to a team.
- **Station Type:** This is an important selection: A Station can either be: a **Team** or a **standard Station**. When you select the Station to be a Team, SARTrack will try to create a Team based on the Tactical Name, or it will try to link the Station to an existing Team. For more details on this important issue, please refer to [Team Linkage](#) on page 19.
- **Permanent Team Link:** If the Station is set as a Team, and you check this box, a Permanent Link is created between the Station Callsign, and a Team with the same Tactical name. This will enable Permanent Links between Radio Tracker Stations and a Team Name. Please refer to [Team Linkage](#) at page 19.

Team Linkage to Tracker Objects and Stations

When a Station is an APRS Radio Tracker, or an Object is a Radio Tracker based on commercial radios like Icom, Tait, Motorola etc., SARTrack can create a Link between this Station or Object Tracker, and a Team. This link is based on the **Tactical Name** of the Station / Object and the **Team Name**, e.g. these must be the same. When a link exists, the Track Colour of the Station / Object and the Tab colour of the Team (in the Team Setup and Team Status windows) will also be the same.

SARTrack has now several ways to make this link. As an example we will take an **Object**.

When you [Edit an Object](#) (Page 17), you can select what Type of Object this is. The options are: (standard) **Object**, **Clue** or **Team**.

When the Object is set as a **Team**, and you save it, SARTrack will attempt to link the Object to a Team. If a Team exists with the same name as the Object Tactical Name, it will try to make a link. If a Team with this name does not yet exist, SARTrack will automatically create a new Team.

When an existing Team is already linked to another Object or Station, SARTrack will ask you what you want to do.

Permanent Team Link:

When the Object is marked as **Permanent**, (and it is set as a Team) a Permanent Link is created, which will stay across Operations. This is an important feature, and highly recommended for all users who use any type of Radio Trackers to follow their Teams in the field.

What does it mean?

When a new Operation is started, and a Radio Tracker (Station or Object) is heard for the first time, SARTrack will find the Permanent Link in its database. It will then automatically create the Team linked to the radio Tracker. If the Team is manually created (with the exact same Name only), SARTrack will automatically create the Object Radio Tracker (but **not** a Station (APRS) Radio Tracker).

So it is strongly recommended that you set up Permanent Links between all your Radio Trackers and a Team Name like this:

Object/Station ID:	Team Name (Tactical):
AAABBB	Team 1
AAACCC	Team 2
I12345678	Team 3
T1234876	Team 4

Save these all as Permanent, and on every new Operation, either the Team will automatically be created when the Tracker is heard for the first time, or the Tracker Object is created when the Team is manually created.

Once this link is made, **you can always rename** the Team to a more appropriate name for the occasion. The Tracker (Object or Station) will be renamed with it, and (if the Permanent checkbox stays checked) the Permanent link updated.

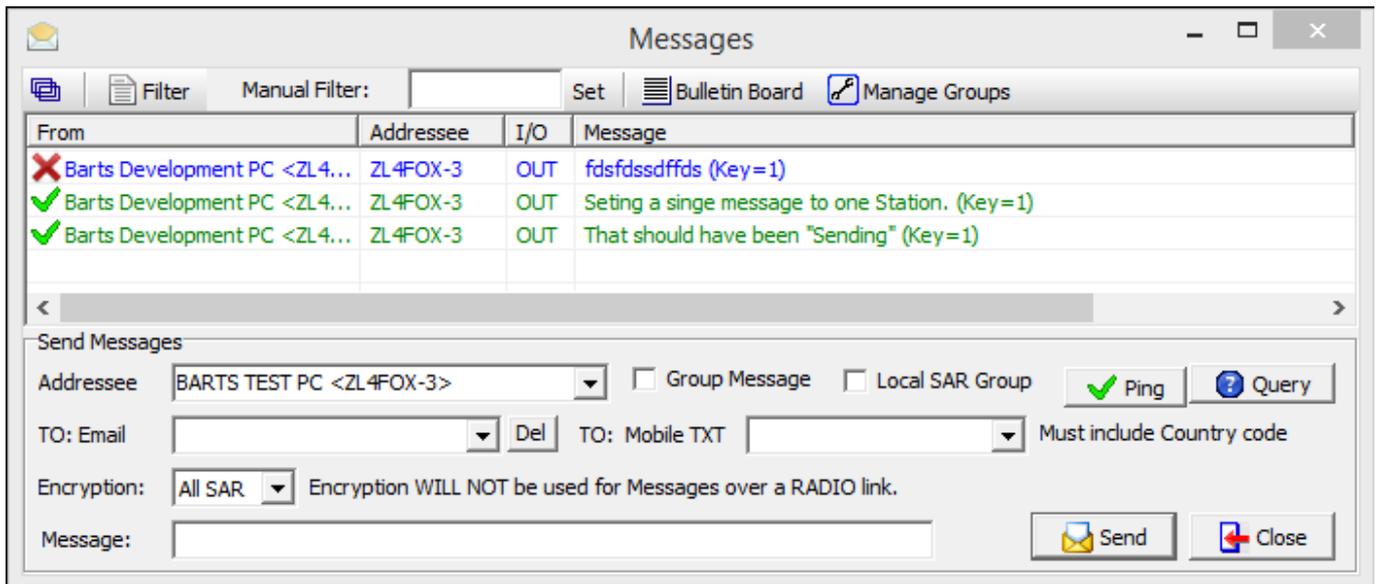
With this system, you no longer have to worry linking the Radio Trackers to the Teams, **but you must make sure the Teams get the correct Tracker assigned to them during the Equipment hand-out.**

This would require that a label with the linked Team Name is attached to all your radio trackers, and you hand them out based on this name, and not randomly or based on the Tracker ID.



If you do not want a Team to be automatically created when a Radio Tracker is heard for the first time, you can disable this behaviour in "Setup>SAR>Automatically Create a Team"

Messages (APRS)



The Messages window enables the transmitting of APRS Messages to a single Station, to a Group, or in the blind.

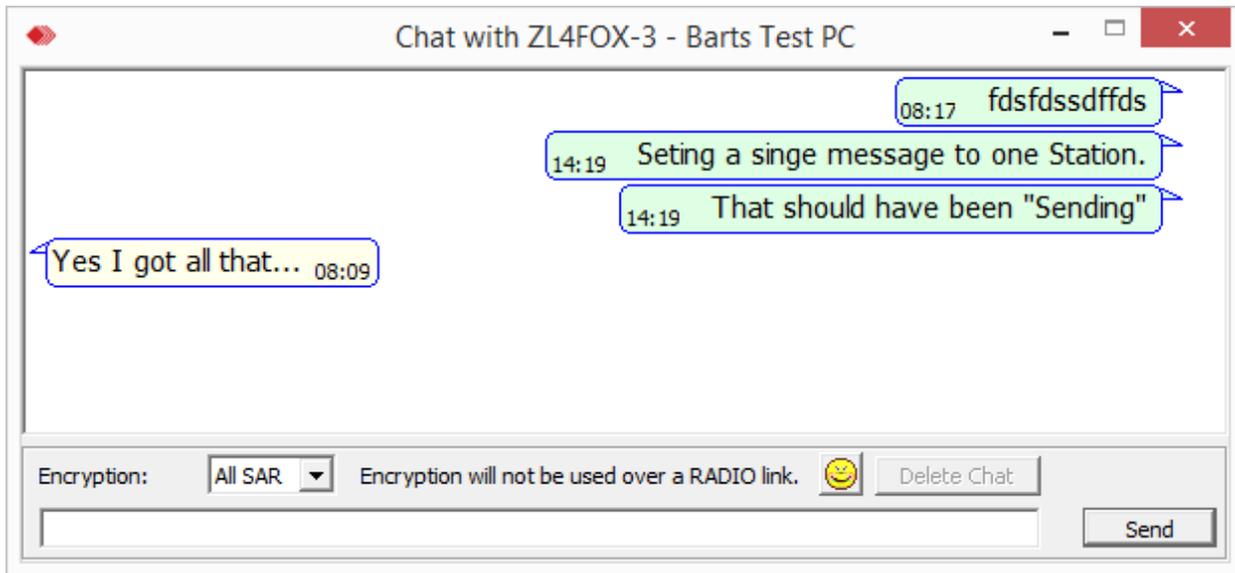
To send a message, select a Station from the pull down list, or enter the callsign of the required Station. You can also select a 'Group' to send the message to. When you check '*Local SAR Group*' the message will be send to all SARTrack stations with the same **GroupID**.

Encryption: The encryption used here is a simple SARTrack specific system, intended to be used when the message is send over the APRS network. When a APRS message is send 'Open' via the APRS-IS network, everybody in the world can read it, and it will be archived on websites like <http://aprs.fi>. When the encryption it set to the default 'All SAR', only SARTrack stations can read it, and they have to be online on the APRS network at the time. The message is *not* archived by aprs.fi. When encryption is set to 'Private' only SARTrack stations with the same **GroupID** can read it, and it is not archived on APRS. When the APRS message is send over a radio link, it will never be encrypted (as it is illegal on amateur radio frequencies).

When SARTrack is used with the Database Server, which means all connected computers will have the same GroupID, all computers will be able to read the APRS messages (even if it is it is send 'privately' from one SARTrack station to another). *There is no privacy with APRS based messages.*

A new Database based Message system is in development which will allow private conversations.

When a new Message is send from the main Message window, a 'Chat' window will appear for this conversation:



Using the Chat windows will make it easier to manage multiple conversations.



When a message is send to a single Station, you can see if the message has arrived there when the ✓ appears next to the message. Messages send to Groups will not get a confirmation. In Database mode, it is possible the destination station is not online at the time, in which case a ✗ will appear; However, when this station comes online later, they may still be able to read the message.

Manage People

The screenshot shows the 'Manage People' application interface. On the left, a list of members is displayed with columns for Member ID, Surname, and First Name. Member 0001 (Kindt, Bart) is selected. The main area shows a form for Member ID: 0001, Surname: Kindt, First name: Bart. Other fields include Gender (Male), GroupID: 12345, Occupation: Director X, Home phone, Mobile phone, Work phone, Email, Address, Date of birth, Town, Blood type, and Date Joined. Below the form is a table with columns: Description, Date, Expires, Experience, Comment. At the bottom are buttons for Filter, Add New Person, ImportExport, Edit Person, Cancel Edit, Delete, Save, and Close.

In Manage People you can add and edit all members of your organisation, and other organisations which may be involved in your Operations. Every person must have a **unique** Member ID. This should be the organisation ID assigned to the member by your organisation. Some of the important fields are:

- **GroupID:** Enter here the SARTrack GroupID of the organisation of which this person is a member. This will allow you to include members of other organisations in the database, but still be able to filter by Group ID, so you can (for example) only see the members of your own organisation. If a person does not have a Group ID assigned to his/her organisation (Police, Fire, Ambulance, etc.) you can assign (make up) a unique ID here to be able to separate them in the list.
- **Mobile Phone:** This field will be used by SARTrack to transmit SMS messages to the person's Mobile Phone. For this reason, it must be complete with the country code, and in the format of: +6421332265 (This is a New Zealand mobile phone number with country code of '64').
- **Capabilities:** This will open the [Capability window](#) (Page 23), where you can add / edit the person's capabilities.
- **Add New Person:** This will switch the window into Edit mode, and jump to the Member ID field. **You must start by entering a unique Member ID in this field**, before you can edit anything else.
- **Edit Person:** This will switch the window into Edit mode, with the selected person's data loaded.
- **Import/Export:** This will open the Import/Export window, where you can import people from a comma delimited (.csv) file, or export your People database to this file.

In the *Additional Info*, *Next Of Kin*, and *Equipment* Tabs you can enter additional info for the selected person.

Capability window

Capabilities of Adrian Dance

Description	Date	Expires	Experience	Comment
Administration (IT) unit m...	19/09/2015	19/09/2016	Operational	
Manager	19/09/2015	19/09/2016	Operational	
Planning Intelligence Man...	19/09/2015	19/09/2016	Operational	
Search Dog team member	19/09/2015	19/09/2016	Operational	
Team Leader	19/09/2015	19/09/2016	Operational	

Remove Capability

Description: Manager Date: 19/09/2015 Expires: 19/09/2016

Experience Level: Operational Comment:

The Capability window is opened from the [Manage People](#) (Page 22) window for a selected person. You can add, edit or remove the Member's capabilities here.

Manage Equipment

Description	ID	Status	Location	Comment
Radio	COSAR3	Available	Caravan	Tait 8100
Radio	COSAR4	Available	Caravan	Tait 8100
Radio	COSAR5	Available	Caravan	Tait 8100
Radio	COSAR6	Available	Caravan	Tait 8100
Radio	COSAR8	Available	Caravan	Standard Horizon black
Radio	COSAR9	Available	Caravan	Standard Horizon black
Stuff	Stuff 1	Available		
Stuff YY	Stuff YY 1	Available		
StuffXX	Stuff 2	Available		
TestGear	TestGear1	Available	Home	
TestGear	TestGear2	Available	Home	
TestGear	TestGear3	Available	Home	
TestGear	TestGear4	Available	Home	
TestGear	TestGear5	Available	Home	

Description: Radio Remove LIST entry

ID: COSAR4

Location: Caravan

Comment: Tait 8100

Remove Equipment Add Equipment Multi Add Close

In the Manage Equipment window to can add, edit and remove Equipment used by your organisation.

Multi Add Equipment

Name: Torche

Amount: 10

Comment: Large

Location: EOC

OK

You can add a single piece of equipment, but it is also possible to do a 'Multi Add', to create a range of identical pieces of equipment, like backpacks or torches. These will then be generated with an increasing number after the name, like 'Torche1', 'Torche2', etc.

Operation: Setting up at location

When a new SAR Operation is starting, and you have to set it up at a remote location, it is very important that some basic but critical equipment is ready to be activated. In this chapter we will step through the most important issues which should be prepared before an Operation even begins.

Remote Location

When setting up at a remote location for any Operation, the following critical items must be installed:

- **Power:** A backup generator may be required.
- **WIFI / LAN:** It is **imperative** that a WIFI/ LAN router is activated at the location, which has been pre-set up for use with the laptop computers which will be used at the location. In addition, it is strongly recommended that a system is in place to connect this WIFI / LAN device to the Internet. This could be done with a unit which is designed to have a build-in SIM card for connection to a wireless network, or an external Satellite VSAT system for access to the Internet. All laptop computers used at the location should have been pre-set up to use this specific WIFI device (e.g. it is Open, or the WIFI password has already been set) (*Also see note below regarding Windows Updates*). Make sure that any passwords used by the WIFI device are labelled onto it! **It is extremely important that this WIFI / LAN device always has power, even when the generator stops!** We recommend it is directly powered from a 12 Volt backup (car) battery, instead of a 230(110) Volt power socket from the generator. When Internet access is (intermittently) available, the Local Database Server should connect to the Internet Database Server to be able to share the Operation with any permanent EOC. The [recommended Network setup](#) (Page 48) shows how this should work.
- **Primary SARTrack Laptop computer:** There must be a Primary SARTrack Laptop set up for use at remote locations. This laptop should have a SARTrack Local Database installed, and a SARTrack Client. It should also be set up to automatically connect to the WIFI unit being used, and the Local Database Server should try to connect to the Internet Database Server.
- **Tracking devices:** When Radio based Tracking devices are used (APRS TNC /Radio Modem, Radio based: Tait, Icom, Motorola, Kenwood, etc.) the connection to the Base Radio or TNC should have been pre-set up. This means that the physical connection (USB cable) and associated Windows COM port(s) are correctly setup in a SARTrack client in advance.

If you normally do not work from a Caravan or Communications Truck, but are heading into the field by 4WD, it is recommended that you build yourself a suitcase where a WIFI unit, SARTrack laptop (Server & Client) and Base Radio and/or Tracking receiver are pre-installed, so that you only have to connect this to a 12 Volt power source and radio antenna, and you are completely online.

Also have a read at this document available on the SARTrack website:

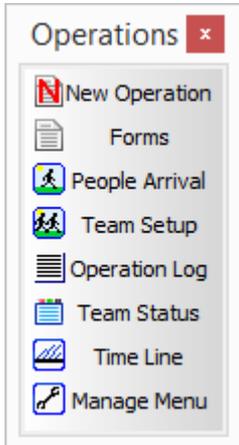
[SARTrack Preparation, Deployment and Operations](#)



*There is a serious problem with Microsoft Windows trying to do its Updates while computers are connected to a WIFI / LAN at a remote location. Especially **Windows 10** will, without warning, starting to do Gigabyte downloads which will completely take down any Wireless Broadband or Satellite connection (and cost you a fortune). The only way to avoid this is, **on all computers**, to program Windows to accept the local WIFI unit as a **'Metered Connection'**, or in earlier Windows versions, set up Windows Update to **'Notify only'**. And this should be done **in advance!***

Operations

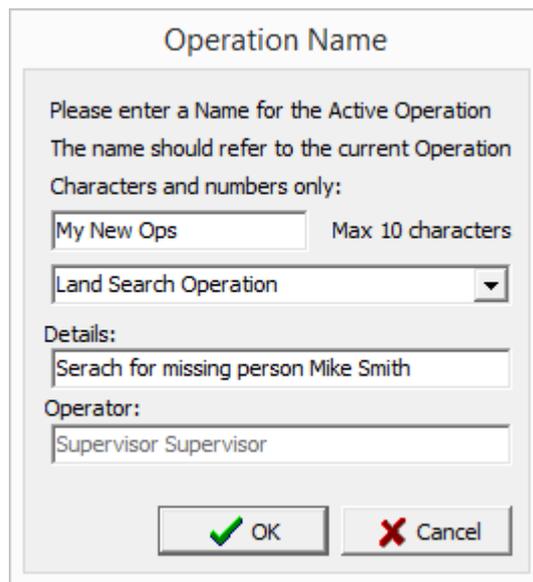
By clicking on the 'Operations' button in the Main Menu, you will open the **Operations Menu** below.



You can start a new *Active Operation* by clicking on the '**New Operation**' button.

When a new Operation is started, all internal databases are cleared, People (members) are reset to their default availability and all Equipment is marked as returned to storage.

At this point, you must select the name of the new Operation which is to start:



The **Operation Name** is the main identifier for this Operation, and must be unique, that is, it cannot have the same name as a previous one.

The next field is the selection **Land Search** or **Urban Search** (the latter is work-in-progress)

The **Details** field is a freeform text field where additional information can be entered.

The **Operator** field is fixed at the current Operator, the person currently logged into this computer.

Once pressing **OK**, the new Operation is started.

You can then choose to start the *New Operation Wizard*, which will guide you through the [Operation Period](#), (Page 27) [Missing Person](#) (Page 28) and [Search Urgency](#) (Page 31) forms, or you can go directly to the primary [Operation Log](#) window (page 32).



If you choose to bypass the Wizard, you can afterwards open the *Operation Period*, *Missing Person* and other Forms by clicking on the '**Forms**' button in the **Operations Menu**.



Did you know: If you have the *Connection Menu* open and attached to the bottom of the Main Menu, and you click on 'Operations' it will automatically be replaced by the *Operations Menu*. If you then click on the mini connection pane on the Main Menu, the *Operations Menu* will be closed, and the *Connection Menu* will take its place. But if you have these two Menus detached in different places on the desktop, they will both stay visible.

Operation Period form

Operation Period (CURRENT) Page1

Operation

Ops Name: Overall Control: Safety Advisor:

Ops Manager: Planning/Intel: Logistics:

Operational period: to

Event location:

Describe the event:

Weather and Hazards

Weather:

Hazards1: On Road Driving Helicopter Safety Technical Rescue-Caves Technical Rescue-High Angle
 Off Road Driving River crossing and water Sub-Alpine Avalanche Clandestine Activities
 Off-Track Operations Technical Rescue-River Alpine Rescue Night Operations

Hazards2:

Hazards3:

COMMENT:

An **Operation Period** is a period in a SAR Operation. In a short Operation, there could only be one; however, in a multi-day Operation there will be one or more [handovers](#) (Page 43) and a new Operation Period will be created, with probably new people in the positions of *Overall Control*, *Operations Manager*, etc. All other information is then copied over into the new Period.

The Operation Period forms are based on New Zealand paper forms, but will likely be similar to what is used in other countries. Shown above is the first of two forms to be entered in SARTrack.

To *edit* the form, you must first click on the **Edit** button. This will cause the background to turn yellow to indicate you are in edit mode, and the form is locked for all other users (that is, they can view it but not edit it).

Note: When an empty form is opened in a new Operation, it will automatically be opened in Edit mode.

Missing Person form (Page 1)

Missing Person Page 1

INFORMANT

Time Reported: Friday , 24 February 2017 09:17:33

Full name: Informant Name

Address: Informant address

Contact Numbers: 12123231

Mobile, Other: 03-1234567 Email:

Relationship: Friend

Reason Reporting: He is missing

Next Of Kin

MISSING PERSON

First name: Mike Middle Names:

Surname: Smith Preferred name:

Primary Language: English

Home address: MP Home address

Home phone: 03-53455443 Mobile: 1-34534454 Business 3-32452434

Occupation: Builder More

Medical Condition: MP is healthy (3) More

Doctor's Details:

Physical Fitness: MP is fit (2)

Additional People? MP is alone (1) 1

Close **New Missing Person** **Edit** **Next >>**

The Missing Person form has two pages, shown above is the first page.

Here you must enter details of the **Informant** the *Informant* panel (at the top) and the details of the **Missing Person** in *Missing Person* panel (below).

To *edit* the form, you must first click on the **Edit** button. This will cause the background to become yellow to indicate you are in edit mode, and the form is locked for all other users (that is, they can view it but not edit it).

In addition to the field visible on this form, you can also (optionally) click on the '**Next of Kin**' and 'More' buttons to open additional windows where you can add more information.

The fields *Medical Condition*, *Physical Fitness* and *Additional People* are linked to the [Search Urgency](#) (Page 31) form to calculate the urgency of the response.

The '**New Missing Person**' button will allow additional Missing Persons to be added.

*Note: Entries on **Bold** are required fields.*

Missing Person form (Page 2)

Missing Person Page2

Missing Person Description

DOB: 1/01/1998 19 Race: European Gender: Male Build: Heavy Height: 1.8m Hair Color: Red

General description, clothing worn and equipment carried: Smoker: Brand >

General description, clothes, etc.

Footwear: Boots Jacket: Geen jacket Pants: Green pants Hat: White hat

Circumstances

Location Missing From: Near Queenstown see PLS 44°58.5955S, 168°41.7019E Missing person last seen

Date and Time PLS: Friday, 24 February 2017 10:43:14 Seen by Whom: A friend

Last Known Position: SET LKP 44°57.1833S, 168°42.0954E LKP Details: Last known position of MP

Activity: Hunting

Vehicle description: Unknown Vehicle Registration:

Destination(s), stated intentions of the Missing Person: Hunting and camping out

Has this person been the subject of a search in the past? If so, describe date(s), circumstances of loss, how long missing, when found, condition when found and actions taken by subject while missing (if known):

Reliability: Usually reliable, on time (2) Experience: MP is experienced; but not familiar with area (3)

Actions taken by Informant or others: Friends have been searching but nothing found.

In the second page of the Missing Person form additional information can be added, some of which is required.

To *edit* the form, you must first click on the **Edit** button. This will cause the background to become yellow to indicate you are in edit mode, and the form is locked for all other users (that is, they can view it but not edit it).

Some of the important fields:

- **DOB:** Date of Birth. There are two ways to enter this information: The detailed way by editing the actual day/month/year field, or if these full details are not available, the person’s age in years. In this case the day and month are set to 1/1.
- **Gender:** Male or Female must be selected.
- **Location missing From:** This freeform text field must be filled.
- **Set PLS:** Set Point Last Seen. This will open the Map window, and requires you to create a [PLS Circle system](#) (Page 44) on the Map, where the person was last seen. It is important that the Date & Time is correctly set here.
- **Set LKP:** Set Last Known Position: This will open the Map window, and requires you to create a [LKP Circle system](#) (Page 44) on the Map, which is the person’s last known position. It is important that the Date & Time is correctly set here.

- **Attach Photo:** You can attach a photo of the person here, in the form of a JPEG or PNG file. These will be resized for display and transfer to the Database Server. You can select multiple photos, but only the first one is visible and will be printed.

The fields 'Reliability' and 'Experience' are linked to the [Search Urgency](#) (Page 31) form to calculate the urgency of the response.



When the PLS or LKP circle system are set, you can click on the coordinate buttons to open the Map window at that location.



When you click on the person's photo, a larger image will be opened, which will also include any additional photos added.

DRAFT

Search Urgency form

Search Urgency

A LOWER value indicates a more URGENT response.

Search Urgency

Name of Missing Person:	<input type="text" value="Mike Smith"/>
Number of missing persons:	<input type="text" value="MP is alone (1)"/>
Age of missing person:	<input type="text" value="Other (2)"/>
Medical conditions:	<input type="text" value="MP is healthy (3)"/>
Fitness:	<input type="text" value="MP is fit (2)"/>
Experience:	<input type="text" value="MP is experienced; but not familiar with area (3)"/>
Reliability:	<input type="text" value="Usually reliable, on time (2)"/>
Clothing:	<input type="text" value="MP's clothing is adequate for conditions (2)"/>
Equipment:	<input type="text" value="MP's gear is questionable (2)"/>
Weather:	<input type="text" value="No hazardous weather predicted (4)"/>
Terrain hazards:	<input type="text" value="Difficult terrain (2)"/>
Length of time missing:	<input type="text" value="Missing under 4 hours (3)"/>

Search Urgency: **26**

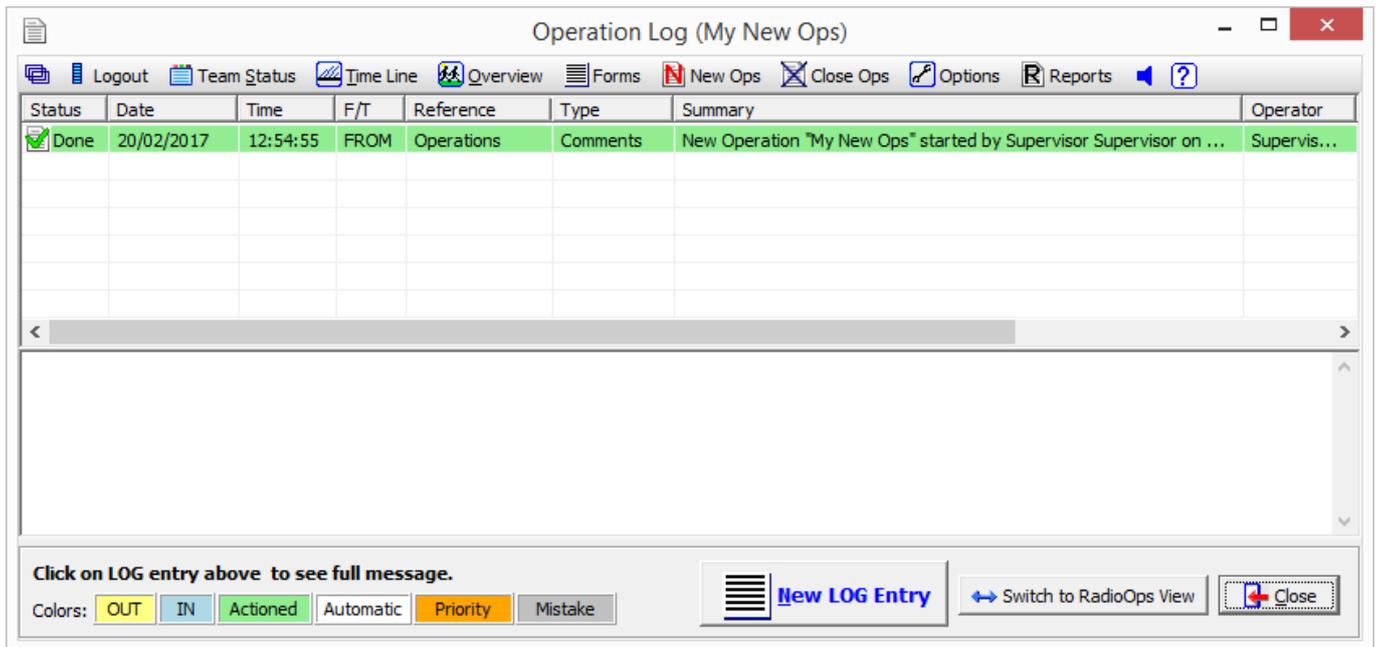
1. If any category rates as a 1, regardless of the total, consider an emergency response
2. If any answer is unknown the response value = 1
3. Have another person independently complete assessment

The Search Urgency form will generate a Urgency level, depending on the entries in the fields.

Some of these entries have already been set in the Missing Person forms.

Pressing the Calculate button will generate the final Urgency level. If required you can change the entries and calculate again.

Operation Log



The SARTrack Operation Log is the primary window during an SAR Operation. From here all Log entries are made, including the communication between the Radio Operator and the Operations Management.

In addition to the Logging of operational information, it is intended that the Radio Operator enters incoming Team radio messages into the Log as 'From' a Team and the Operations Management then reads these Log entries, and confirms them as 'read' by marking the Log Entry as 'Actioned'. Orders 'TO' a Team are then sent from the Operation Management in the same way, after which the Radio operator will transmit this to the selected Team, and (when it is confirmed) marks the Log Entry as 'Actioned'. Changing the Status of a Log Entry can be done by right-clicking on it.

From the Menu Bar at the top, the following windows can be opened:

- **Team Status:** The status of the all Teams. This shows the Log entries and current Task for all Teams.
- **Time Line:** This window shows a Timeline (whiteboard) of all activities.
- **Overview:** This window shows the *last* Log Entry of all Teams.
- **Forms:** This opens the [Forms window](#), (page 43) from which you can select the Missing Person, Operation Period, Welfare Assessment and other forms, including *paper forms* to be printed.
- **New Ops:** Start a New Operation. This will save and close any current Active operation and allows you to start a new one.
- **Close Ops:** This will save and close the current Active Operation.
- **Reports:** Will allow you to make several reports on the current Operation.
- **Options:** In the Options list you can select the following entries:
 - o **Show Auto Log entries:** When checked, this will not only show you the manual Log entries, but also the automatically generated ones from SARTrack.

- **Use Radio Chanel field:** This will add a Radio channel box in the New Log form.
- **Load Historical Data:** This will allow you to temporarily suspend the current Active Operation on this computer, and load a Historic Operation. A full list will be available to choose from. The Database Server will then open the selected historic Operation for in in read-only mode. The 'Options' list entry will change to 'Switch to Active Operation' which, when clicked, will reopen the Active Operation. *Note: All open windows will close when you switch Operations, and you will have to reopen them.*
- **Reactivate Historic Operation: Warning:** This is intended as an emergency procedure, when an Active Operation is accidentally closed while not finished. The People and Equipment may not be reset to the original Operation status, as they have been reset to their defaults when the Operation was closed.
- **Broadcast Message:** This will allow you to send a one-line message to all connected SARTrack clients with your GroupID. A message box will appear on all clients' screens with your message.



By right-clicking on a Log Entry, you can change its Status ('Mark as Actioned', 'Mark as NOT Actioned', 'Mark as Priority' or 'Mark as Mistake').

At the bottom:

- **Switch to RadioOps View:** There are two views of the Operation Log window, and the Add Log window: The default is the standard one (shown above), the alternative it the version intended for the Radio Operator, which is simplified and has a larger font size.
- **New Log Entry:** Opens the New Log Entry form.

Log Entry Form:

- **Date & Time:** The Time the Log Entry was actually send or received. If information is entered in the Log at a later time, you must edit the Date and time first.
- **From/To:** You must select here if the information entered in the Log is 'From' or 'To' the Team or other reference in the next field, indicated by the '>>>' arrows.
- **Reference pull-down box:** Select here the **source or destination** (From/To) of the Log entry. This can be a Team in the field, a person, Operations Management, etc. as set by the 'Type' field to the right. When a

new reference is manually entered in this box, you must select the **Type** in the pull-down box on the right.

- **Type:** A pull-down box of the Type of the Reference. If you leave this selection as '**one-off**' the reference will not be saved. In all other cases ('Team', 'Person', 'Aircraft' etc.) the reference will be saved, and will become available in the [Team Setup](#), [Team Status](#) and other windows, and in the previous pull-down box for the next entry.
- **Log Type:** The default is 'Standard'. This type of Log Entry will not be saved in the Time Line window. Other options are Task, Clues, Team, Weather, Map Markers and Comments. These will be added to the [Time Line](#) window at the appropriate line. **When the option 'Task' is selected, this Log Entry is assumed to be a New Task for the selected Team.** (Only available if the *From/To* is set to '**To**' and the reference field is not set as 'One-Off'). You can now select an existing Task from the 'Task List' pull-down box, or you can manually enter the new Task in the Log. When a *manual* Task is assigned to a Team in this way, the Summary field will become the Task ID, and the main body the actual Task. *Note that the manual way of assigning a Task to a Team does not give all the options which are available when the Tasking window and the Team Setup window are used to assign a new Task.*
- **Enter Coords:** In the current version of SARTrack, you can manually enter the position coordinates of the selected Team here. In the next version, you will be able to either enter the Team's coordinates, or to enter the location of a Clue found by the selected Team. In both cases, the previous known position of the Team will be pre-loaded in the coordinate window. If the Team has a Tracker with them, the location will be the last received automatic position report.

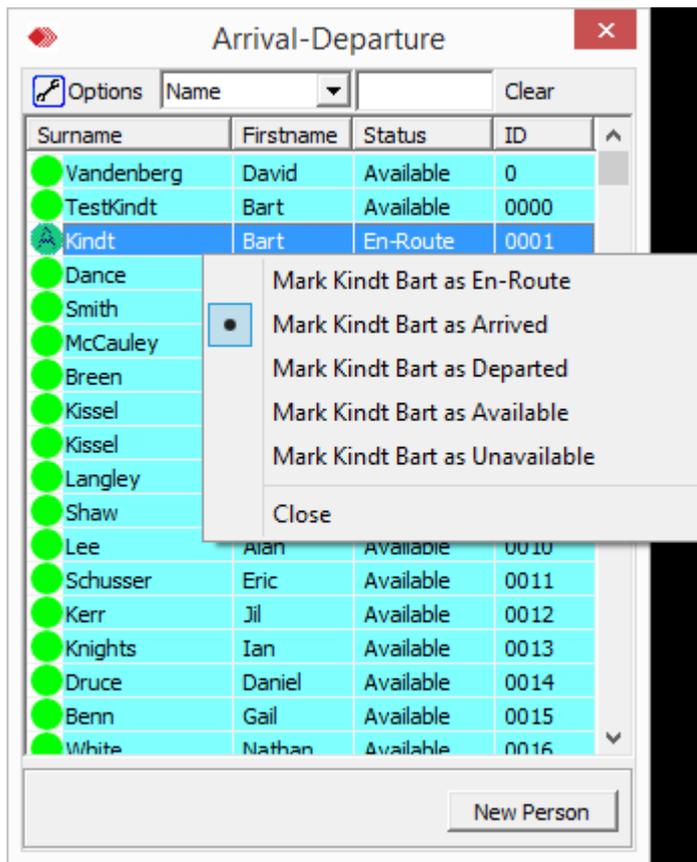


Did you know: Pressing the Tab key will step you through the input boxes in the right order, and will take you then to the [Message/Log Entry](#) box first. You can then start typing your text in the Message box.

One more press on the Tab key will take you to the Summary box. However, when you leave the Summary box empty, SARTrack will automatically copy the first 80 characters over into the Summary when you press Enter.

Alternatively, when you start typing in the [Summary](#) box, your text will also appear in the Message box. When you then reach the limit of 80 characters for the summary, SARTrack will switch you automatically to the Message box where you can keep typing.

People Arrival / Departure



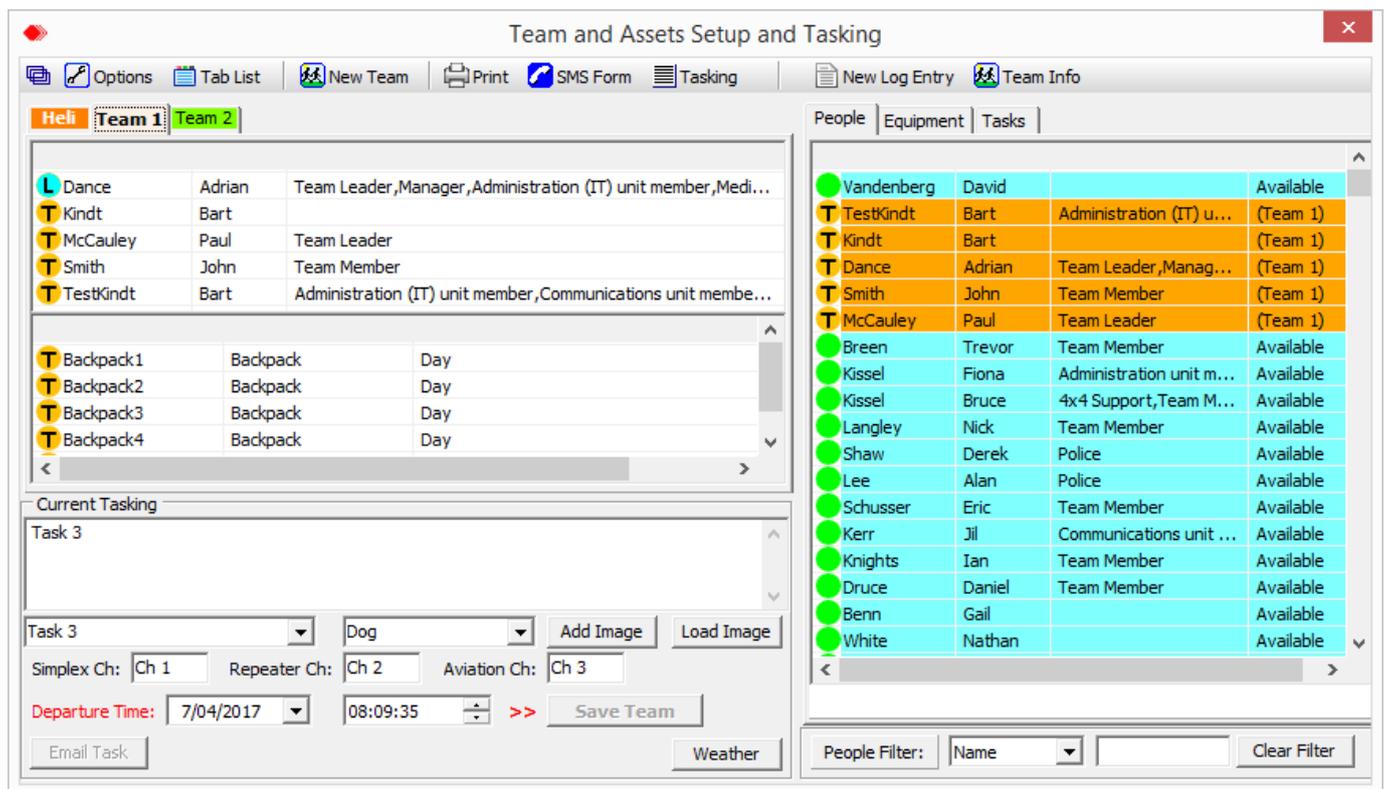
The Arrival / Departure window is intended to be used by an operator with 'Data Entry' access, on a separate SARTrack computer, who marks the status all people involved in the Operation.

Generally people will initially be Available, and then they can be marked as 'En Route', later as Arrived.

Once the person has arrived, they can be assigned to a Team in the Team Setup window.

Note: In the Team Setup window, any person who is NOT marked as 'Unavailable' can be directly assigned to a Team, overriding any other Status.

Team Setup



In the Team Setup window, you can add Teams, assign People and equipment to the Team, and allocate a Task to the Team. The entered information can then be printed out.

- **Tab List:** To show or hide all available Teams. Not all Teams are automatically shown; here you can select which entries are visible in the window.
- **New Team:** This will generate a new Team with a selected name and a tab colour which will also be the Track colour on the Map.
- **Tasking:** This will open the [Tasking window](#) (page 38) where Tasks can be prepared in detail, including adding images to the Task (Maps, pictures).
- **New Log Entry:** This will open the Log Entry form, with the ID of the selected Team already filled in.
- **Team Info:** This will open the Team Information window, where you can view the Team members and the Team's current Task.
- **SMS Form:** This opens the SMS window, where you can send a SMS to all People who have a valid mobile phone number added. *This requires Internet access and enough SARTrack SMS credits.*

Setting up and populate a Team:

Select a Team by clicking on a Tab, or click on 'New team' to create a new one.

- **Adding People:** Click on the 'People' tab on the right panel. Select the required People on this panel. Then drag-and-drop the selected people into the People list in the left Team panel. *After dropping the People, you must select a Team Leader by right-clicking on the person, and select 'Mark this person as team Leader'.*

- **Adding Equipment:** Click on the 'Equipment' tab on the right panel. Select the required equipment on this panel. Then drag-and-drop the selected equipment into the Equipment list in the left Team panel.
- **Adding a Task from existing list:** (Recommended) Click on the 'Task' tab on the right panel. Select the required Task on this panel. If no Tasks are yet available, open the 'Tasking' on the top Menu Bar, to open the [Tasking Window](#) (page 38) and add new Tasks, or drag Template Tasks to the Active Tasks. Then drag-and-drop the selected Task into the Task Edit box in the left Team panel.
- **Adding a Task manually:** (Not recommended) Enter the Task text into the Task box in the left Team panel. Select the Task Type from the pull-down list. The first 32 characters of the Task text will become the Task ID. *Currently you cannot attach an Image to this task.*
- **Add Image, Show Image:** You can add Images to the Task, and view these. All attached images will be printed out when the Task assignment is printed.
- **Adding Radio Channels:** You can add radio channels in the three available boxes. This information will be printed out with the Team's Task sheet.
- **Weather:** This feature is not fully developed, but *general* weather can be added here.



After adding or changing the Task for a Team, you must click '**Save Team**' to activate it.



Right-clicking on a Task will allow you to change the Task Status: Mark as Completed, Cancelled or Open.



Right-clicking on a Team member in the left panel, will allow you to remove this person from the Team.



Did you know: When dragging items from Windows lists, always start your drag (grab it) from the second or later fields of the selected item(s). If you try to start dragging from the first field, MS-Windows will attempt to do a multi-line selection instead and the drag will fail.

Tasking

The screenshot shows a 'Task Form' window with two main tables and a 'Manage Tasks' section at the bottom.

Task Name	Active Tasks	Assigned
Task 6	Task 6	
Task 2	Task 2 with Picture	
Task 3	Task 3	
Task 4	Task 4	
Task 1	Task 1	
Do to location a...	Do to location and search...	
Go to location a...	Go to location and search...	Team 1

I..	Task Name	Template Tasks	Assigned
	Task 6 [Template]	Task 6	
	Task 2 [Template]	Task 2 with Picture	
	Task 3 [Template]	Task 3	
	Task 4 [Template]	Task 4	
	Task 1 [Template]	Task 1	

Manage Tasks

Task Name: Type: Template

Task:

In the Tasking window you can add and edit Tasks, to be later assigned to the Teams.

There are two types of Tasks: Template Tasks and Active Tasks. A template will be saved permanently and will be available when a new Operation is started.

Active Tasks are only valid for the current Active Operation. You can drag Template Tasks to the Active Tasks window, after which they will become available for assignment in the [Team Setup](#) window (page 36).

To **add** a new Task, in the Task Name, enter a unique Task ID name for the task, or to **edit** an existing Task, select one from the pull-down list. In the **Type** pull-down box, select the Type.

In the **Task** edit box, enter the full Task description.

You can optionally attach an **Image** to the task. For example, this could be a Map or Missing Person photo. It will be printed out with the Team Tasking sheet.

If you wish to save this Task for future use (in another Operation) check the '**Template**' box.

Click **SAVE** to save the Task. If you entered it as a *template*, you can now **drag** the template to the Active Tasks window to make it active.



Did you know: When dragging items from Windows lists, always start your drag (grab it) from the second or later fields of the selected item(s). If you try to start dragging from the first field, Windows will attempt to do a multi-line selection instead.

Team Status window

Status	Date	Time	F/T	Reference	Type	Summary	O
Open	23/02/2017	11:05:05	TO	Team 2	Task	NEW TASK ASSIGNED: Team 2: This is Barts manual task via Lo	Su

In the Team Status windows you can monitor the status of all Teams. Under each Team Tab the Log entries 'From' or 'To' the Team are displayed, and also it's current Task.

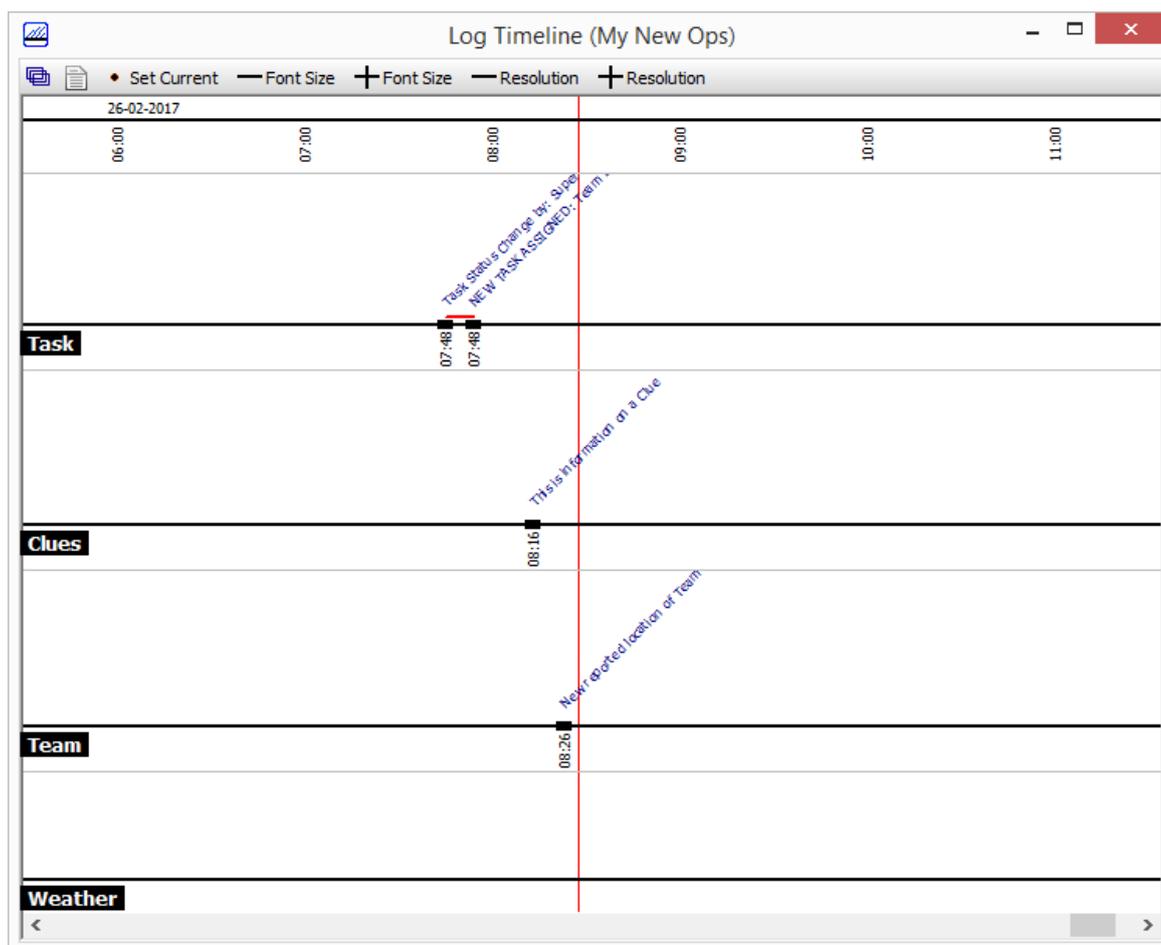
When a new Log entry related to a Team comes in, the coloured Tab will start flashing (except for the Tab which is open at that time). This will quickly show that new information related to this Team has arrived, and clicking on the flashing Tab will then enable you to read the new Log entry.

- **Options:** You can change the Status of a selected Log Entry here, and you can transfer the Log Entry to another [Time Line](#) (Page 40)
- **Tab List:** Select here which Teams you want visible in this window. You can also hide a Team Tab by right-clicking on a Tab and selecting 'Hide this Tab'.
- **New Log Entry:** You can directly open the [Log Entry](#) (Page 33) from here, with the selected Team already filled in.
- **TimeLine, Overview and Team Info:** You can open the [Time Line](#) (Page 40) [Overview](#) (Page 41) and Team Info forms here.



By right-clicking on a Log Entry, you can change its Status ('Mark as Actioned', 'Mark as NOT Actioned', 'Mark as Priority' or 'Mark as Mistake').

TimeLine window



The TimeLine window shows timelines of the Operation. Default lines are: **Task, Clues, Team, Weather** and **Comments**.

-  Open the main Log window.
- **Set Current:** Jump the display to the current time.
- **+ Font Size, - Font Size:** Change the font size of the displayed text.
- **+ Resolution, - Resolution:** Change the Time resolution of the display.

To **Hide** a TimeLine you do not use, **right-click** on the required TimeLine (on or above its Base line) and select 'Hide Timeline'.

To **Change the order** or **un-hide** a Timeline, **right-click** anywhere and select 'Edit Timelines'.

You can adjust the **height** of each Time Line by **left-clicking** on its base line (at the bottom) and dragging it up- or down.

When you **hover the mouse cursor** over an entry on a Timeline (the black square on the base line) an information box will pop up with details of the Log Entry.

Overview window

Reference	Time	Last Summary	Operator	Sender
Heli	11:35:53	sdassaddasadsdsdasasd	RadioOps...	Barts Developm...
Not assigned	18:33:36	Unknown: This is a new Task assigned via	Supervis...	Barts Developm...
Operations	12:54:55	New Operation "My New Ops" started by Supervisor Supervisor on ...	Supervis...	Barts Developm...
Team 1	11:38:55	zxcxczxcx	RadioOps...	Barts Developm...
Team 2	11:05:05	NEW TASK ASSIGNED: Team 2: This is Barts manual task via Lo	Supervis...	Barts Test PC

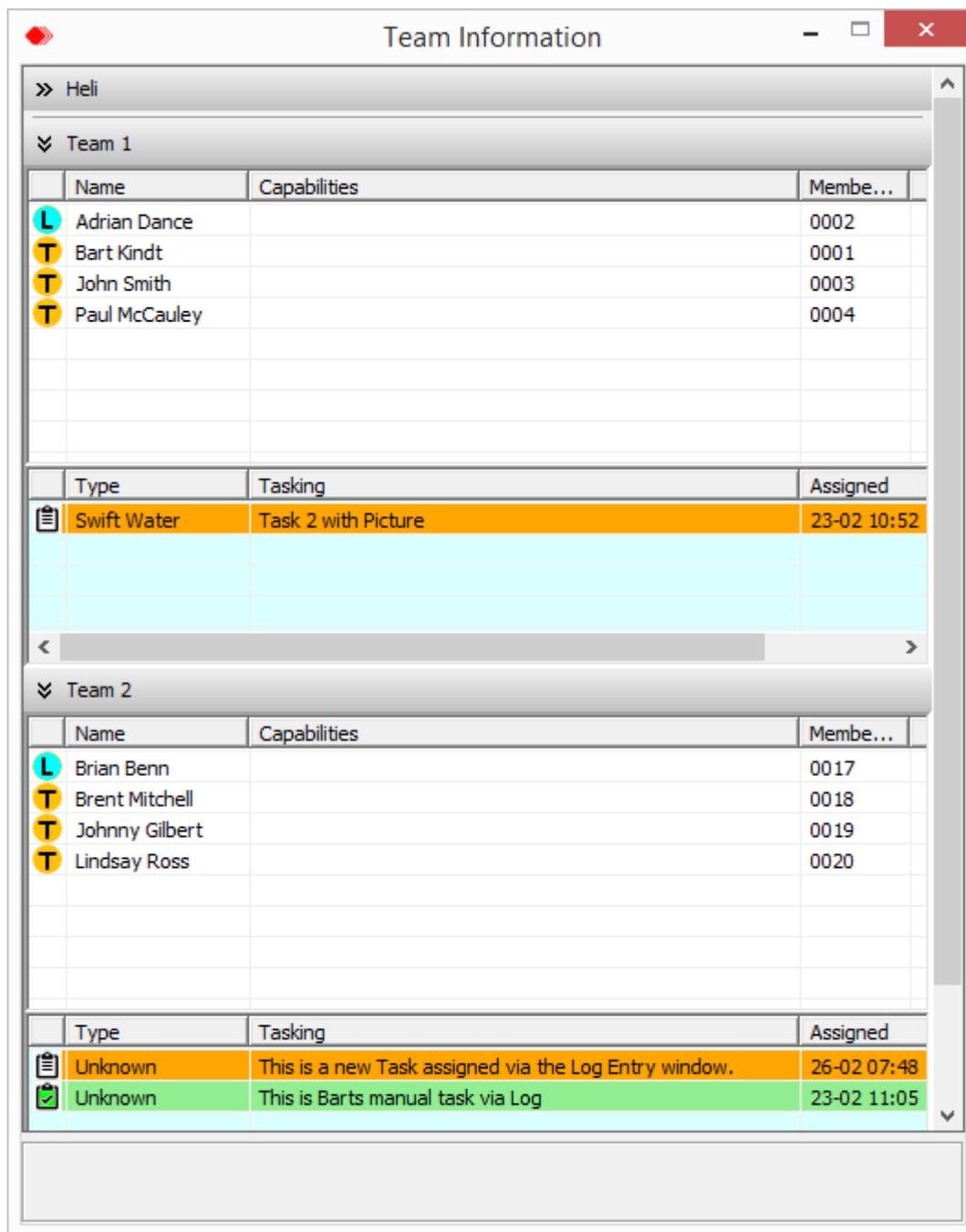
Time: 23-02-2017, 11:05 TO Team 2 Operator: Supervisor Supe
Log# 95
NEW TASK ASSIGNED: Team 2: This is Barts manual task via Lo
NEW TASK ASSIGNED: Team 2: This is Barts manual task via Log

Colors: **OUT** **IN** **Actioned** **Priority** **Close**

The Overview window shows for each Team the **last Log entry**.

By clicking on the Log entry, an information box will pop up, which shows the full details of this entry.

Team Information window



The screenshot shows a window titled "Team Information" with a red close button. It displays two teams, Team 1 and Team 2, each with a list of members and a list of tasks. Team 1 has four members and one task. Team 2 has four members and two tasks. The tasks are color-coded: orange for the current task and green for the last task.

Team 1			
	Name	Capabilities	Membe...
L	Adrian Dance		0002
T	Bart Kindt		0001
T	John Smith		0003
T	Paul McCauley		0004

	Type	Tasking	Assigned
📄	Swift Water	Task 2 with Picture	23-02 10:52

Team 2			
	Name	Capabilities	Membe...
L	Brian Benn		0017
T	Brent Mitchell		0018
T	Johnny Gilbert		0019
T	Lindsay Ross		0020

	Type	Tasking	Assigned
📄	Unknown	This is a new Task assigned via the Log Entry window.	26-02 07:48
📄	Unknown	This is Barts manual task via Log	23-02 11:05

The Team Information window shows for each Team its **members** and **current and last Tasks**.

Forms window

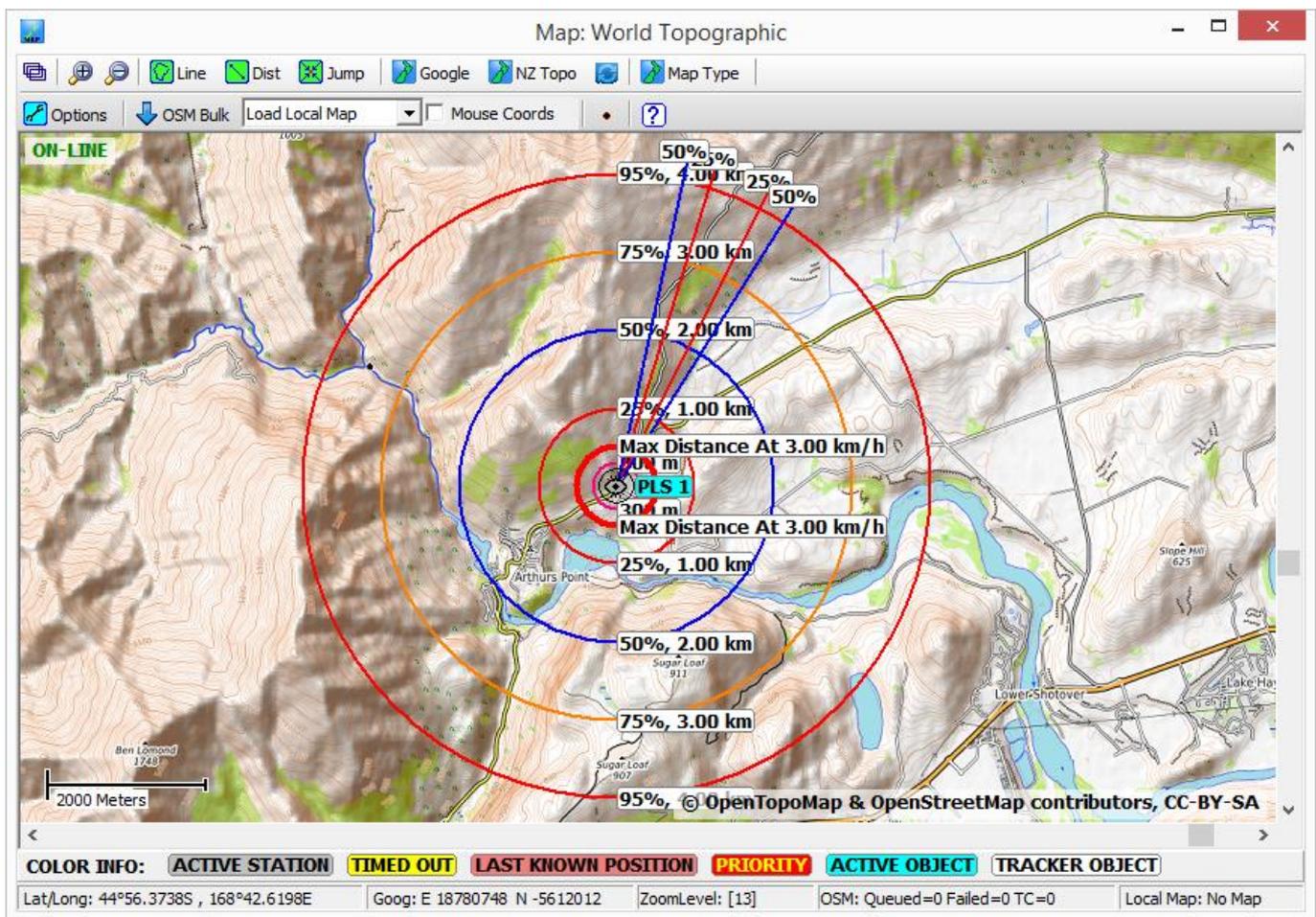
The screenshot shows a window titled "SAR Forms" with a close button (X) in the top right corner. The window is divided into several sections:

- Missing Person:** A dropdown menu showing "Smith, Mike (1014637062)" and a button labeled "Open Missing Person Form".
- Operation Period:** A dropdown menu showing "New" and a button labeled "Open Operation Period Form".
- Urban Operation:** Two buttons: "Open Urban Locations Form" and "Open Welfare Assessment Form".
- Print or Preview Forms:** A button labeled "Print or Preview Any Form".
- SMS:** A button labeled "Open SMS Form".

In this window, you can select various Forms to be opened.

- **Missing Person:** When selecting 'New' from the pull-down list, you can create a new Missing Person in the [Missing Person window](#) (Page 28) Or you can select an existing one if one exists.
- **Operation Period:** When selecting 'New' from the pull-down list, you can create a new Operation Period in the [Operation Period window](#) (Page 27). When one already exists, you can select the 'Current' Operation Period, or you can select 'Handover' which will create a new Operation Period.
- **Open Urban Operation Form:** *This is not yet available.*
- **Open Welfare Assessment Form:** The Welfare Assessment is based on Red Cross forms intended to be used after a disaster like an earthquake for example. It allows an interviewer to visit people at location, and enter their details, and requirements. This system is going to be used in conjunction with the upcoming SARTrack **Android App** which will allow Teams in the field to enter the information on their Android device, after it will be transmitted back to the EOC. *This is still work-in-progress.*
- **Print or Preview any Form:** This will open the [Print-Preview](#) (Page 47) window, where you can select from a list of available paper forms. Note that some Forms cannot be printed here, because the item is not actually selected. For example, to print the forms for a specific Team, you need to select this Team from the [Team Setup](#) (Page 36) window and print it from there.
- **Open SMS Form:** In the [SMS Form](#) (Page 46) you can send an SMS to members of your organisation, but only if Internet access is available, and enough SARTrack 'SMS Credits' are available.

Statistical Rings and Dispersion Angles



Based on the *International Search & Rescue Incident Database (ISRID)* and the book [Lost Person Behaviour](#) by Robert Koester, SARTrack can display a Statistical Ring system, including (optional) **Dispersion lines**. The 'Percentage' of the available Rings is the statistical chance that the person will be in that area.



The Colours of the percentage Circles are linked to the colours of the percentage Dispersion Lines. This means that the 'Pie' shape produced by lines of the same colour, is the statistical percentage chance for the person to be in that pie-shaped area.

Optional is a 'Travel Circle' which shows an expanding circle based on estimated speed since Last Seen.

- The Statistical Ring system can be edited at any time.
- You can hide all Labels.
- You can hide the entire Statistical Ring system, to (for example)

start a new one, if you receive a new PLS information. The original system will still be available to display when needed, or during debrief. (You can re-activate it in the [Object window](#) (Page 16))

To create a *new* **LKP** (Last Known Position) or **PLS** (Point Last Seen) circle system, right-click on the location on the Map and select '**Create IPP/LKP/PLS Circles**'. This will open the LKP/PLS window (see next page):

Statistical Rings

IPP / LKP / PLS

Name:

Details:

Date:

Location

Lat:

Long: Altitude:

<p>Rings: Horizontal Distance</p> <p>25% <input type="text" value="0.3"/> km <input type="button" value="Color"/> </p> <p>50% <input type="text" value="1.1"/> km <input type="button" value="Color"/> </p> <p>75% <input type="text" value="3.2"/> km <input type="button" value="Color"/> </p> <p>95% <input type="text" value="12.6"/> km <input type="button" value="Color"/> </p> <p>Fixed <input type="text" value="300"/> meter <input type="button" value="Color"/> </p>	<p>Dispersion Angle</p> <p>25% <input type="text" value="11"/> degrees</p> <p>50% <input type="text" value="23"/> degrees</p> <p>75% <input type="text" value="66"/> degrees</p> <p>95% <input type="text" value="0"/> degrees</p>
--	---

Show Label Use Dispersion Angles

Use 300 m ring Ring Type:

Use Travel Ring

Travel Ring

Average Speed: km/h

Mobility Hours: hours

- **Name:** Enter a unique name here for this circle system.
- **Details:** Do enter some details here. Note that there may be additional Circle Systems generated for this person, depending on new incoming information.
- **Date & Time:** It is critical that this is correctly set to the actual time the person was Last Seen or his/her Last Know Position was reported. This Date & Time are also used to calculate the Travel Circle (if used).
- **Location:** This is the clicked Map location, but it can be edited here.
- **Rings:** Enter here the values from the *ISRID* database. The values here are for an Alzheimer person in an urban area.
- **Dispersion Angle:** Optionally enter here the Dispersion Angle values from the *ISRID* database.
- **Show Label:** Show the Label on the Map.
- **Use 300m Ring:** By default this will show the 300 meter ring, which is a required

search area.

- **Ring Type:** Select here if this is a PLS (Point Last Seen) or LKP (Last Known Position) ring system.
- **Use Travel Ring:** This is a SARTrack additional option. When checked, SARTrack will start drawing a Travel Ring, updated every minute, starting at the entered *Date & Time*, based on the estimated maximum *Average Speed* of the person, and limited to his/her *ISRID Mobility Hours* (The time it is estimated the person will no longer move from his/her position). When this time has been reached, the Travel ring will disappear from the Map.
- **Average Speed:** Estimated by the Operations Manager, the maximum average speed the person could achieve in the terrain. This is based on a straight line therefore when walking tracks are involved, this should be taken into account.
- **Mobility Hours:** From the *ISRID* Database, the time after which the person will probably no longer move from his/her position.

SMS Form

First	Last	ID	Group
<input type="checkbox"/>	Bruce Calder	0033	0
<input type="checkbox"/>	Bryan Phillips	0063	0
<input type="checkbox"/>	Caine Clissold	0079	0
<input checked="" type="checkbox"/>	Cam... Dawson	6907	0
<input type="checkbox"/>	Cheryl Pullar	0051	0
<input type="checkbox"/>	Chris Cattaway	0060	0
<input type="checkbox"/>	Chris Coory	0070	0
<input checked="" type="checkbox"/>	Chris Bell	11653	0
<input checked="" type="checkbox"/>	Cliff Harris	6878	0
<input checked="" type="checkbox"/>	Colin Whittaker	5612	0
<input checked="" type="checkbox"/>	Craig Fowler	10149	0
<input type="checkbox"/>	Craig Winters	4208	0
<input type="checkbox"/>	Craig Murray	4491	0

The SMS Form allows you to send an SMS to one or more Members of your organisation. This requires Internet access, and enough SARTrack 'SMS Credits'.

To be able to use this system, you need Internet access. Either SARTrack is connected to the SARTrack Internet Database direct, or connected to a Local Database, which in turn is connected to the SARTrack Internet Database Server.

When this window is opened, a request is made to the Internet Database Server for the available SMS Credits, which will then be displayed in the top-right corner.

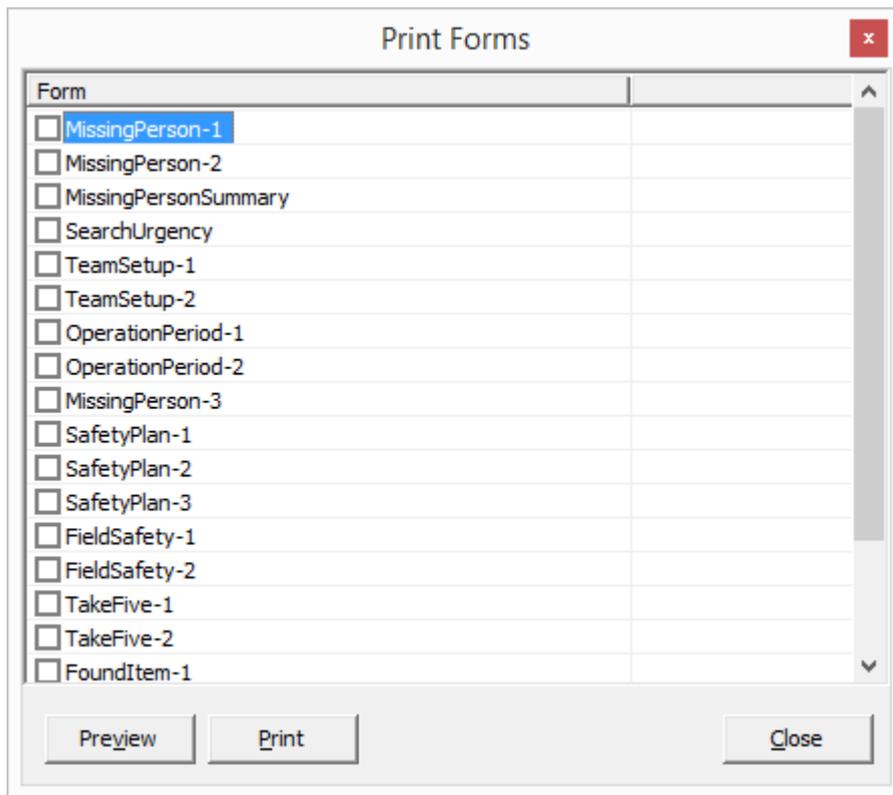
You can purchase more SMS Credits from SARTrack Limited, by clicking on the 'Buy More' button. Then will open your Web

browser on a link to the [PayPal](#) website. There you can make a 'donation' which will be linked to your organisation's **GroupID**, and which will be passed on by PayPal to SARTrack Limited. SARTrack Limited will then calculate how many SMS Credits you receive for the amount of money 'donated', and add this to your SMS Credits total.

This is a manual process, and may take one or two days. It is therefore important that you always have enough SMS Credits in store for an unexpected Operation.

- **Buy More:** Open your web browser on PayPal to make a donation to SARTrack Limited.
- **Check All:** Check all available people. Note: Only people with a valid Mobile Phone number can be selected.
- **Uncheck All:** Uncheck all checked entries.
- **Selected (Un)Check:** This will **swap** all selected entries checked / unchecked. This will enable you to 'check' all people who did not get an SMS yet, and un-check all people who already got an SMS.
- **Clear Queued:** This will clear any SMS messages which are still queued for transmission on the **Local** Database Server. When the Local Database Server is NOT connected to the Internet Database Server, all SMS send will be queued locally. When the Local Server then (later) connects to the Internet Database Server, all SMS messages will be send at that time. To prevent this (because it has already been too long, or too late) you can cancel the SMS transmission by clearing the local queue.
- **Set Coords:** By clicking this button, the Map window will open, and you must Create an Object (for example the assembly point), which location will then be transmitted with the SMS. The receivers of the SMS will be able to open this location on their device in Google Maps or Apple Maps.

Print Preview window



The screenshot shows a window titled "Print Forms" with a list of forms. The first form, "MissingPerson-1", is selected. Below the list are three buttons: "Preview", "Print", and "Close".

Form	Selected
<input checked="" type="checkbox"/> MissingPerson-1	Yes
<input type="checkbox"/> MissingPerson-2	No
<input type="checkbox"/> MissingPersonSummary	No
<input type="checkbox"/> SearchUrgency	No
<input type="checkbox"/> TeamSetup-1	No
<input type="checkbox"/> TeamSetup-2	No
<input type="checkbox"/> OperationPeriod-1	No
<input type="checkbox"/> OperationPeriod-2	No
<input type="checkbox"/> MissingPerson-3	No
<input type="checkbox"/> SafetyPlan-1	No
<input type="checkbox"/> SafetyPlan-2	No
<input type="checkbox"/> SafetyPlan-3	No
<input type="checkbox"/> FieldSafety-1	No
<input type="checkbox"/> FieldSafety-2	No
<input type="checkbox"/> TakeFive-1	No
<input type="checkbox"/> TakeFive-2	No
<input type="checkbox"/> FoundItem-1	No

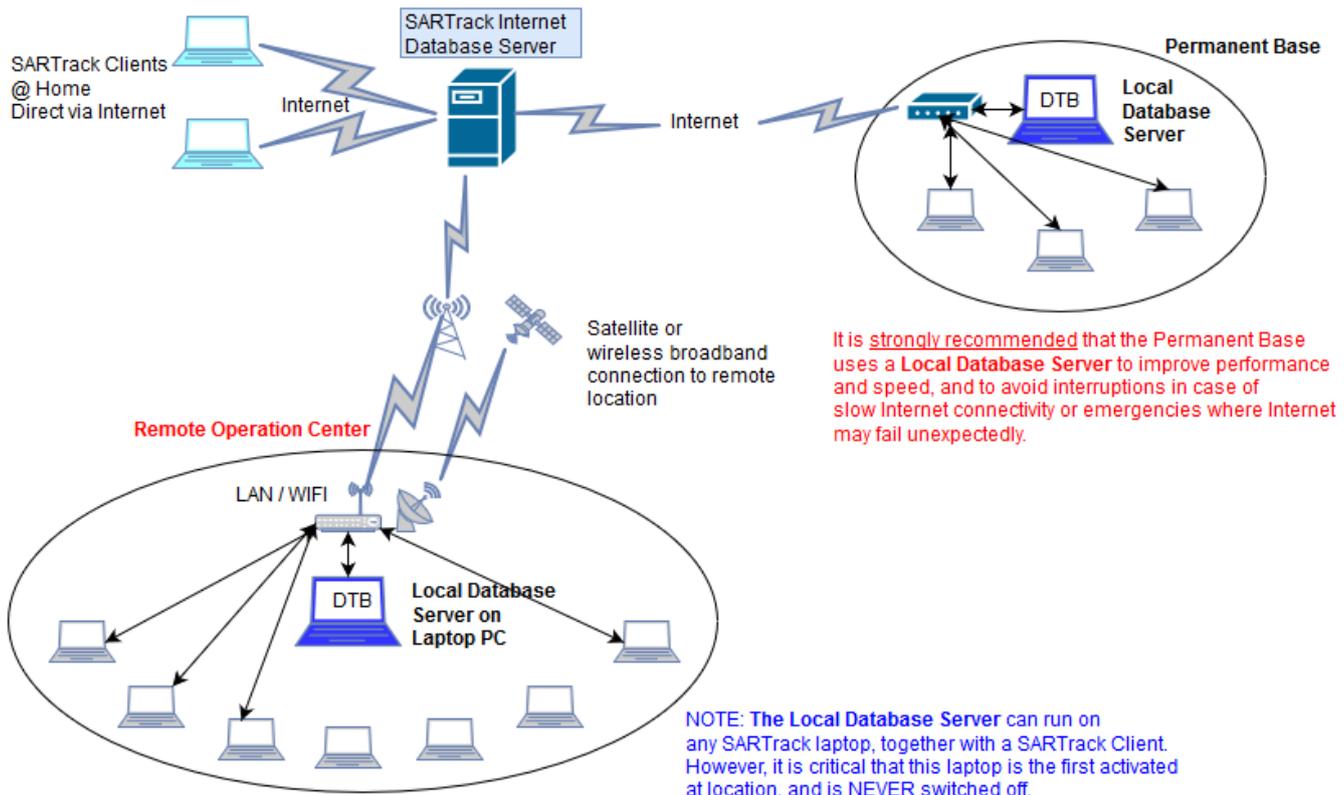
You can select here to Preview or Print from a list of available paper forms.

Note that some Forms cannot be printed here, because the item is not actually selected. For example, to print the forms for a specific Team, you need to select this Team from the [Team Setup](#) (Page 36) window and print it from there.

Recommended Network Setup



RECOMMENDED NETWORK SETUP



SARTrack laptops at the remote location must connect to the Local Database Server and will work independently from an Internet connection. If Internet is (intermittently) available, the Local Server and Internet Server will synchronize in the background. Note that any (OSM) Maps must be downloaded while Internet is still available.