



AdvanceGuard

Witness Operator's Guide

Document version 3.0g

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Welcome

The Navtech® AdvanceGuard® system provides high integrity detection, tracking and intelligent alarm generation for wide area intrusion detection systems.

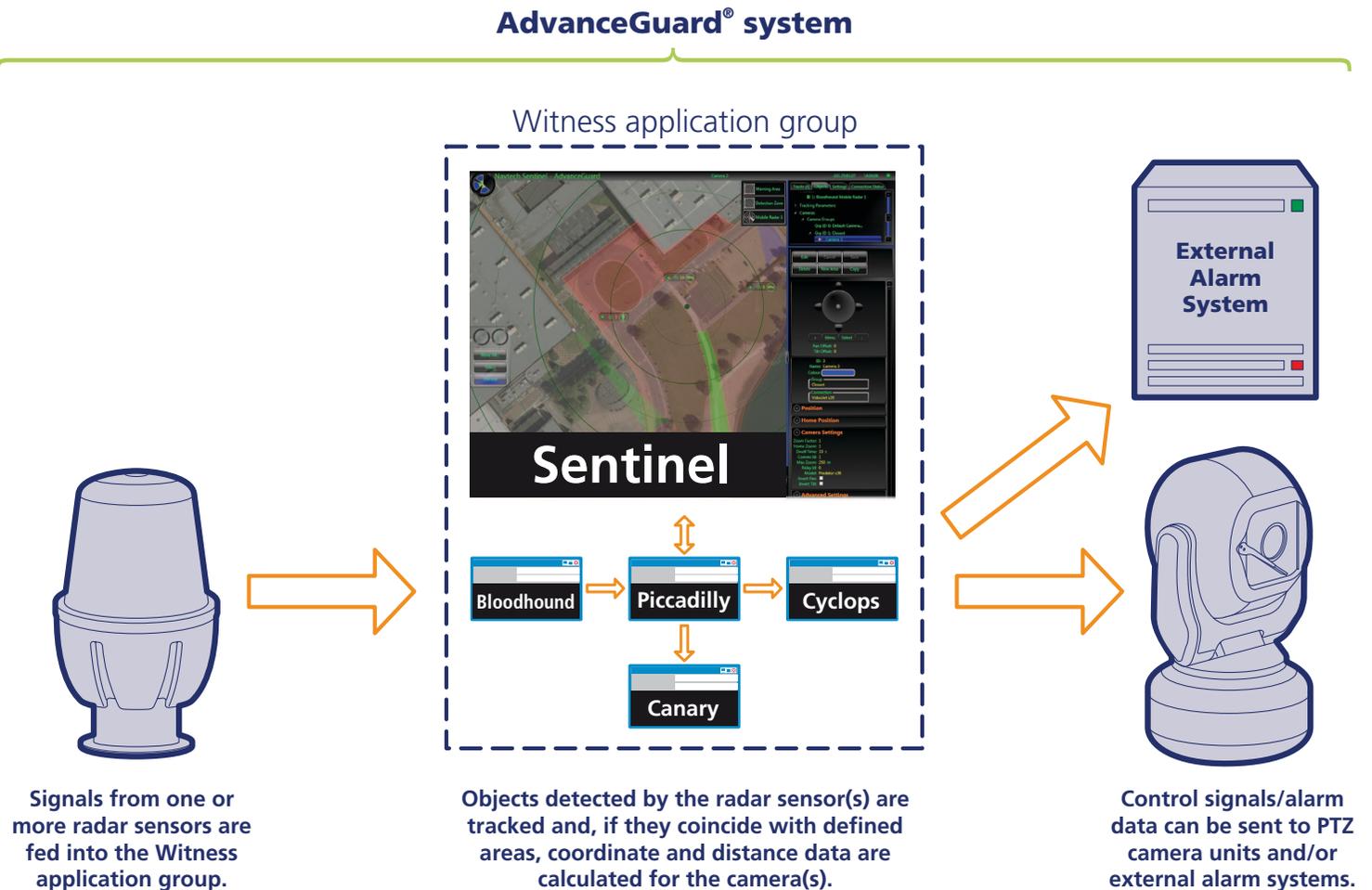
To achieve this feat, the Navtech AdvanceGuard system continually monitors the output from one or more radar sensors. It interprets the data received, intelligently decides when alarms should be raised (based on a set of programmed rules) and controls your Pan/Tilt/Zoom (PTZ) cameras. The result is a system that enables 'dumb' scanning cameras to become intelligent entities which track any targets that are moving within your defined areas of interest.

This guide provides full details about configuring and commissioning the Navtech AdvanceGuard system ready for use.

System overview

The diagram provides a view of the main elements of a complete AdvanceGuard installation: From radar sensor(s), via the software applications, through to the pan/tilt/zoom camera(s).

For a more detailed view of the software applications, please see the next page.



The Witness software components

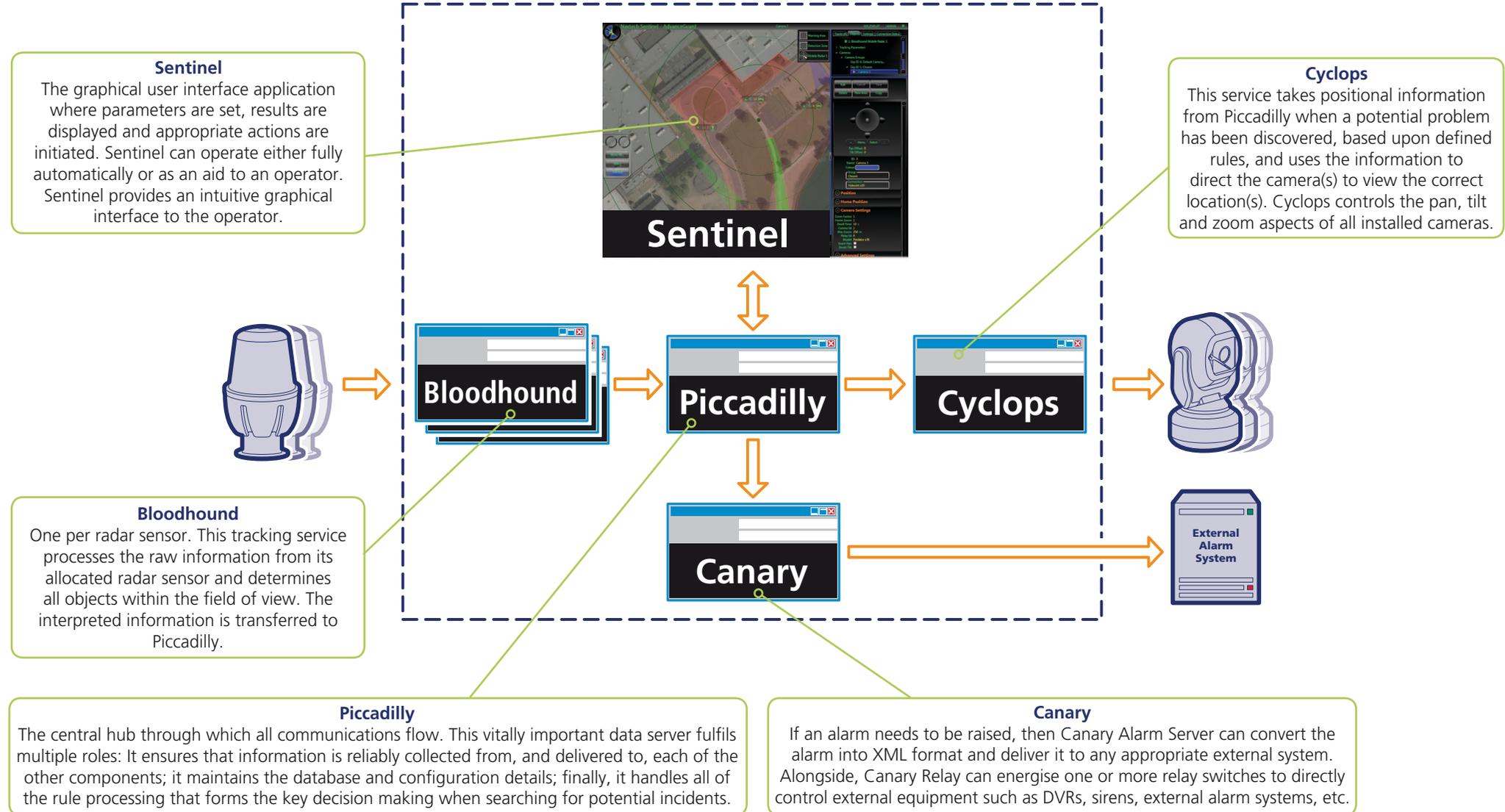
The Witness application group comprises a collection of applications and services, each with their own specialist areas. For the user, the visible component is the Sentinel application. Behind the scenes, the hub of the whole system is Piccadilly, acting as the data server through which all of the other components communicate.

Multiple sensors and cameras

The actions of radar sensors and cameras are not directly linked. Where multiple sensors and/or cameras are installed, a camera will be automatically chosen to respond to an area primarily by its proximity to the target and whether it has an unobstructed view, not because it slavishly responds to a particular radar sensor.

For details of the Sentinel application user interface, please see the next page.

Witness application group



Operation

Sentinel screen layout

The system processes potentially vast quantities of data as it monitors the areas within its view. It is the job of the Sentinel application to provide the operator with a clear view of the proceedings with easy-to-use controls and also deliver automated overview and alarm facilities.

Navtech menu icon
Click to display a menu of options.

Object picker
Popup buttons that allow you to choose between displayed objects.

Selection panel
Includes a *Settings* tab where you can adjust various key display settings.

Site map
Displays the radar(s), defined area(s), identified tracks and camera positions. To move around the area, click and drag on any part of the background image.

Tracked object
Click on a tracked object to view further information about it, such as its speed, direction, size, etc.

Quick commands panel
Zoom buttons allow you to alter the view magnification. Other buttons are also displayed with functions related to the currently selected item.

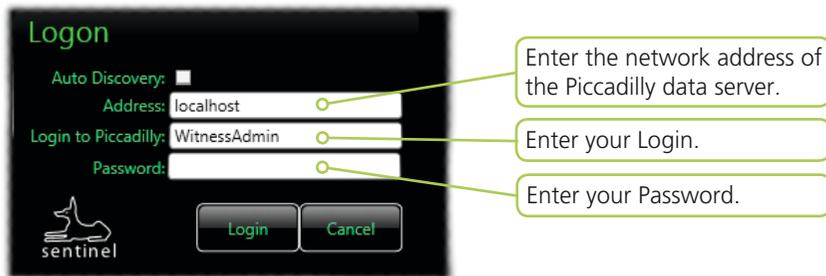
Logs and alarms panel
Four tabs allow you to switch between lists of alarms, system alarms, logs and manual (historic) logs.

Information panel
Displays information and options for items that are selected either within the selection panel above or the site map.

Logging on

When you first enter the Sentinel application, you may need to logon to the Piccadilly data server.

The logon popup appears as follows:



To logon

- 1 Either:
 - Enter the valid **Address** for the Piccadilly data server (enter 'localhost' if the server is on the same system as your Sentinel viewer), or
 - [Where multiple Witness installations are present] Place a tick in the **Auto Discovery** checkbox. The **Address** field will change to **Group Name**, whereupon you can enter the unique name for the appropriate server group and the application will search for the appropriate server.
- 2 Enter your **Login** name and **Password**.
- 3 Click the **Login** button.

Login levels

There are three login levels, each with their own abilities:

- **Admin** Can alter any aspect of setup or operation.
- **Supervisor** Can edit existing items but cannot create or delete any.
- **User** Is able to view system operation only. No access to configuration.

Getting help

The Navtech Sentinel application has a built-in help system.

To access help

- Press the F1 key.



Checking status

When logging in and periodically, you are recommended to check the Connection Status tab in the top right corner of the screen. This simple list will quickly show whether any main system components are currently in error.

If communication with a module lost, the corresponding indicator will show amber for 30 seconds and, if the link is not restored, the indicator in the second column will turn to red until the problem is resolved.



Other status indicators

In addition to the full list of status indicators provided within the *Connection Status* tab, certain items within the *Objects* tab also provide quick visual feedback on their condition. Each radar and its tracker provide a single status square which effectively combine their respective connection and health monitors into one. The single indicator shows the lowest condition of the two contributing factors, e.g. if Connection is green but Health is amber, the single indicator will show amber. You can then check the Connection Status tab to discover which factor has a potential issue.



Main menu

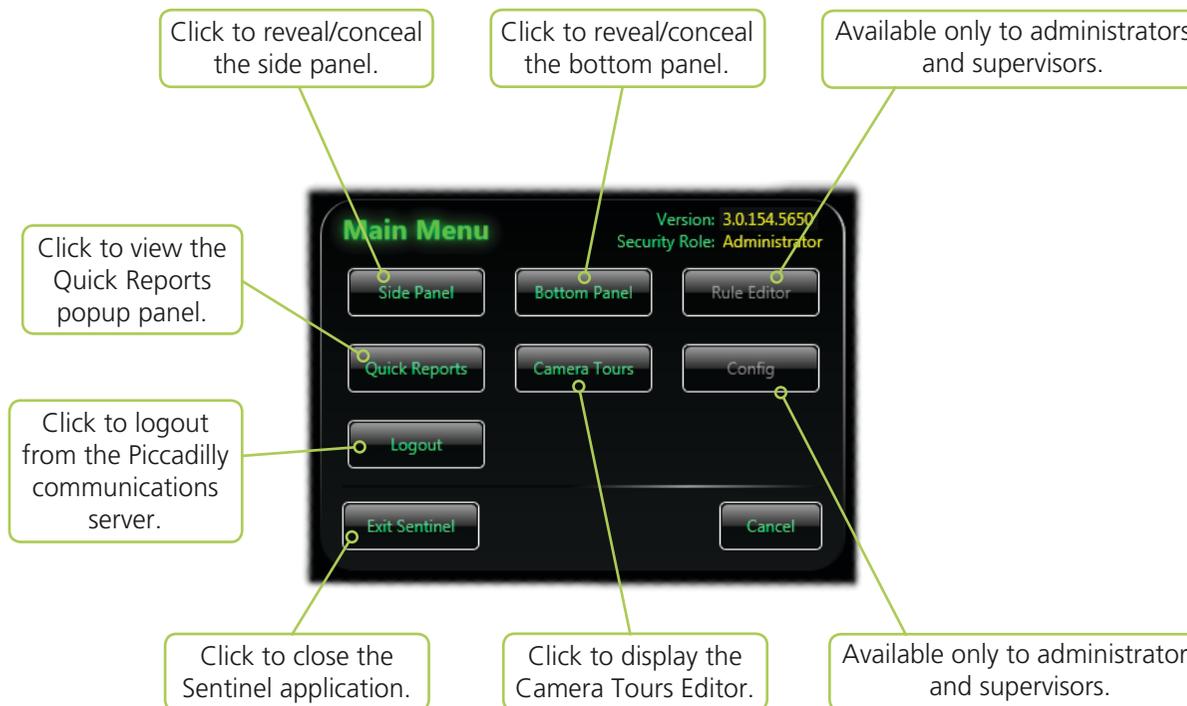
The main menu allows you to hide/reveal the side and bottom panels as well as logout from the Piccadilly server and exit from the Sentinel application.

To access the Sentinel main menu

- 1 Click the Navtech logo located in the top left corner of the Sentinel window →



The main menu will be displayed:

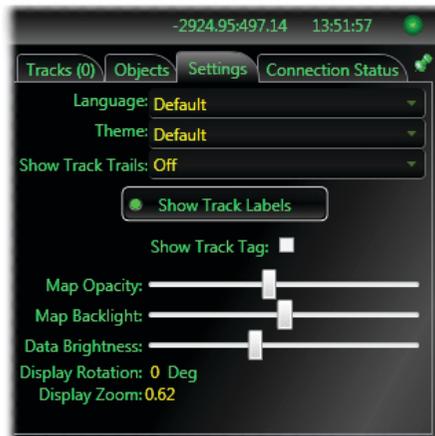


General screen navigation

The Sentinel application provides several controls that allow you to quickly adjust how items appear within the site map.

To adjust your screen view

1 In the selection panel in the top right hand corner, click the **Settings** tab.



The following options are provided:

- **Show Track Labels** - Determines whether the information labels for each track are displayed. When there are many tracked vehicles in an area, their labels can obscure the view. This is a quick way to temporarily hide them.
- **Show Track Trails** - Determines whether each track should show a short series of trail markers to highlight the direction of travel. *Note: You can also apply a trail to an individual track. Click on the track and then click the **Trail** button on the Quick commands panel on left side of the site map.*
- **Map Opacity** - Allows you to adjust the transparency/opacity of a static background image to allow other details to be seen more clearly. The *Open Street Map Opacity* setting performs a similar task for dynamic map backgrounds.
- **Map Backlight** - Allows you to adjust the brightness of the background image.
- **Data Brightness** - Allows you to adjust the brightness of the radar data that is overlaid onto the background image when aligning a radar sensor.
- **Display Rotation** - Indicates the level of rotation of the background image.
- **Display Zoom** - Indicates the current level of zoom applied to the site map.

To move around the map

You can quickly move to any region of the graphical representation using your mouse.

- Click and hold the left mouse button on any part of the graphical representation and drag to reveal the required region of the screen.

To zoom in and out

There are two ways to change the site map zoom level:

- Click on the **+** and **-** buttons at the top of the quick commands panel,  or
- Use the scroll wheel on your mouse (if fitted) when the pointer is in the site map.

The current zoom level is indicated within the **Settings** tab in the top right corner.

To select an object

Selecting an object (e.g. an area, a camera, a radar sensor, etc.) is usually as simple as clicking on it with your mouse. However, where numerous different items are overlaid in busy areas of the site map, the Sentinel application may display an object picker panel in the top right corner of the site map:

Click on the required item to confirm your choice. 

Once the object is selected, its outline will be highlighted and relevant options for that item will be made available in the information panel and/or quick commands panel, as appropriate.

Monitoring tracks

During operation there could be peak periods when many tracks are shown moving within the site map as people and vehicles are identified and monitored. Accordingly, each detected object is listed within the Tracks tab of the selection panel.

To select a displayed track

1 In the site map, click on the required track:

Highlighted and un-highlighted tracks



A track detail panel will be displayed in the top left corner of the site map, with further information such as the size (if calculated), direction and precise position of the track.



Also, any relevant actions for the track will be added to the quick commands panel on the lower left side of the site map.

See the next page for details about using these command buttons.



The selected track's entry within the Tracks tab will be highlighted.

Radar	Id	Speed	Classification	Cam
1	72	4.35	Unclassified (100.0 %)	
1	73	3.39	Unclassified (100.0 %)	
1	74	4.59	Person (61.9 %)	
1	75	4.49	Unclassified (100.0 %)	

Id: 72
 Sender Id: 1
 Speed: 4.35 mph
 Direction: 318.96 Degs
 Range: 51.46 m
 Position: X: 39.43m, Y: 37.10m, Z: 0.00m
 Lat, Long: 52.4509880, -1.7200496
 Type: Threat
 Camera:
 Strength: 3825
 Size: 2.62m X 2.74m
 Classification: Unclassified (100.0 %)
 Detected Range: m
 Range Size SD: 0.21 m
 Weight: 22 cells

Rule ID	Type	Priority	Relay
6	Alarm And Follow	Highest	0

Rule ID	Break Count	Broken
4	31	True
5	39	True
3	16	True
6	8	True

The panel below the Tracks tab will show a wide variety of details for the track, including any rules that it is currently breaking...

... as well as a running total of break counts for rules that have previously been impinged.

2 To release the track, click anywhere else within the site map.

While a track is highlighted

As discussed left, when a track is highlighted, the quick commands panel provides a variety of relevant options.

To follow a selected track

In the quick commands panel on the left side of the site map, click the **Follow** button. This action will cause the track to remain highlighted (with pulsating white rings) within the site map as it progresses through the monitored area.

Additionally, where suitable camera facilities exist, this action will request the closest camera to 'lock' onto the track and follow it. If the track moves closer to another camera or moves out the current camera's field of view then it will be handed over to the next most suitable camera. The track will maintain at least one dedicated camera for as long as the radar can see it. Click the **Follow** button again to cancel the exclusive tracking and return to normal operation.



To turn on/off the trail for a selected track

In the quick commands panel on the left side of the site map, click the **Trail** button. The trail maps out the recent movements of the track. Together with the direction arrow that is always applied to each track, this may assist with determining the track movements.

Note: You can apply trails to all tracks using the Show Track Trails button within the Settings tab. However, where there are many tracks, the screen can quickly become very congested.



To change the severity for a selected track

If a track is spotted behaving in an unusual manner that does not contravene any configured rules, you can mark it using the quick commands panel on the left side of the site map. Click on the track and then click on either Warning or Threat. The new classification will remain with the track.



Using the Tracks list

You can quickly locate a track.

To locate a listed track

- 1 In the selection panel in the top right hand corner, click the **Tracks** tab.
- 2 Next, either:
 - Single click on any listed track entry. The chosen track will be highlighted within the site map, or
 - Double click on any listed track entry. The site map will pan and zoom in to show the highlighted tracked vehicle at the centre of the screen.

Single- or double- click a track entry to highlight the related track entry within the site map.

The percentage values shown indicate the level of confidence in the classification that has been applied to each target. The higher the value, the more confident the tracker has been in identifying the type of target.

Radar	Id	Speed	Classification
3	5471	98.77	Unclassified (100.0%)
1	1940	112.12	Car (81.8%)
1	2030	124.03	Car (67.9%)
1	6524	81.68	Car (80.0%)
3	6025	76.95	Car (73.9%)
3	1599	92.22	Car (84.8%)
1	6525	88.79	Car (78.8%)
3	1608	73.33	Car (72.7%)
1	2048	97.24	Car (90.9%)

- 3 See left for details about what you can achieve once a track is highlighted.

*Note: You can also locate any object, e.g. an area, a radar, a static sensor, a camera, etc. by double clicking an entry within the **Objects** tab.*

Classified tracks

Once a sufficient level of certainty is achieved for each track, a symbol will be added to the track label within the site map, for example:



The colour of each symbol changes according to the severity status for the track →

Classifications:

Vehicle

Person

Grey Unknown
 Green Friend
 Amber Warning
 Red Threat

Controlling cameras

Although the cameras are usually controlled automatically, you can also take direct control.

Move the closest camera to a chosen location (absolute positioning)

- Move the mouse cursor to the required location in the site map and click the right mouse button. The nearest camera to the location will move to view your chosen location. The camera will remain viewing your location until it is commanded by the system to follow a new tracked vehicle or will return to its home position after a timeout period.

Move a selected camera to a chosen location (absolute positioning)

- 1 Click (left mouse button) on the image of a camera  within the site map.
- 2 Move the mouse cursor to the required location in the site map and click the right mouse button. The selected camera will move to view your chosen location. The camera will remain viewing your location until it is commanded by the system to follow a new tracked vehicle or will return to its home position after a timeout period.

Move a camera using the joystick control (relative positioning)

- 1 Click (left mouse button) on the image of a camera  within the site map.

Note: If there are multiple items nearby (e.g. areas, radar sensors, other cameras, etc.), two or more view buttons will be displayed in the upper right corner of the site map to help you choose the required item. Click the view button that has the name of the required camera.

- 2 The selection panel will change to the **Objects** tab and will show the details for the chosen camera. Use the joystick within the panel to pan and tilt the camera 
Note: A 'view circle' will be overlaid on the graphical representation indicating the approximate area currently being viewed by the camera.



Camera control tips

- Click the outer horizontal buttons to pan (x-axis).
- Click the upper/lower buttons to tilt (y-axis).
- Click and drag the middle button to move the camera in any direction.
- To reset the camera to its home position, click (and release) the middle button.
- +/- In operation, these buttons zoom in and out.
- Menu/Select - Available only in admin mode and only then if the selected camera supports their use. These control access to, and navigation within, the internal menu of the camera. When menu mode is invoked, you can then use the joystick controls and Select button to control the camera menu, as you would with a standard camera controller.

Control cameras using quick command buttons

- Click (left mouse button) on the image of a camera  within the site map.

Note: If there are multiple items nearby (e.g. areas, radar sensors, other cameras, etc.), two or more view buttons will be displayed in the upper right corner of the site map to help you choose the required item. Click the view button that has the name of the required camera.

In the quick commands panel on the left side of the site map, click the required camera control button:

Move All...

Instructs all cameras within range to focus upon the location that you next click (left mouse button) within the site map.

Go Home

Instructs the selected camera to return to its pre-programmed home position.

Move To...

Instructs the selected camera to focus upon the location that you next click (left mouse button) within the site map.

Video Viewer (Video Feeds) buttons

For cameras that have multiple video feeds, e.g. optical and thermal, multiple buttons will be displayed to allow the required feed to be viewed.

Wiper

For cameras with a lens wiper, instructs the wiper to operate.



Home a camera

- 1 Click (left mouse button) on the image of a camera  within the site map.
- 2 The quick command panel should appear on the left side of the screen .
- 3 Click the **Go Home** button.



Using camera tours

Running a camera tour

Once a camera tour has been created and enabled, you can set it running at any time. Camera tours are given the lowest priority within the operation of each camera, which means that while a tour is running, any other automated or operator-induced request will cause the tour to be paused while the higher priority task is carried out. The camera will then return to the tour once the other task has timed out.

In order to switch camera tours on and off, you must ensure that the appropriate button is enabled within the quick commands panel, see below.

To enable the Touring button

Note: You must be in admin mode to make changes - see [Entering admin mode](#).

- 1 In the top left corner of the Sentinel window, click the Navtech logo to reveal the **Main Menu**.
- 2 Click the **Config** button and then choose the **Quick Commands** tab.
- 3 Click the **Edit** button and ensure that the **Touring** checkbox is ticked. Also ensure that the *Quick Panel Is On* option is also ticked.
- 4 Click the **Save** button and then click **Close**.

The *Touring* button should now appear on the popup quick commands panel whenever a camera is selected.

To run a camera tour

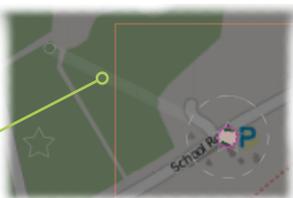
- 1 Select the required camera.
- 2 The quick command panel should appear on the left side of the screen →
- 3 Click the **Touring** button. The Green indicator within the button should illuminate.

Note: If the button appears but is greyed out, check within the Camera Tour Editor popup that a tour for the current camera is enabled.

If the button does not appear at all when the camera is selected, see 'To enable the Touring button' above.

Once the camera tour begins, you should see the camera image within the site map changing between the various preset positions defined within the tour →

The superimposed beam line shows the preset position that is currently being viewed



To stop a camera tour

- 1 Select the required camera.
- 2 The quick command panel should appear on the left side of the screen.
- 3 Click the **Touring** button. The Green indicator within the button should extinguish.

To edit a camera tour

Note: You must be in admin mode to make changes - see [Entering admin mode](#).

- 1 In the top left corner of the Sentinel window, click the Navtech logo to reveal the **Main Menu**.
- 2 Click the **Camera Tours** button.
- 3 Click the **Camera** field at the top of the popup and choose the required camera from the drop down list.
- 4 Click the **Tour** field at the top of the popup and choose the appropriate tour from the drop down list. The position presets within the tour will be listed within the middle section of the popup.
- 5 Click the **Edit** button.
 - To move a preset - Click on the preset to highlight it and then use the **▲** and **▼** buttons move the highlighted entry up or down.
 - To add/remove a preset from the tour - Click on the preset to highlight it and then click on its checkbox to tick (include) or untick (exclude).
 - To add/remove all presets - Click the checkbox that is at the top of the list, adjacent to the *Presets:* heading.

When you have made your changes, click the **Save** button.

To remove the whole camera tour, click the **Delete** button.

- 6 Click the **Close** button to exit.

Alarms

The Sentinel application provides clear information to the operator when alarms are triggered. The precise nature of an alarm condition is determined by the rules that are applied to each area.

When an alarm is triggered

When one or more tracks meet certain pre-determined conditions, then the affected area(s) will go into alarm. Such instances will be reported to the operator in several ways:

- An audible alert may be sounded.
- One or more popup panels will appear at the top right corner of the site map and slide down the screen until they are removed at the lower right corner:

Alarm notifications appear at the top right corner of the site map, then slide down the screen...

...and disappear at the lower right corner.

Red panels indicate the start of an alarm while green panels are displayed when the alarm condition has been resolved.



To locate an alarm using a popup panel

When an alarm occurs you can click directly on the corresponding popup panel. This will cause the panel to expand and show two buttons:

- Click the **Locate** button to instruct the nearest camera to pan, tilt and zoom so that the cause of the alarm can be viewed. The site map will also respond accordingly.



- All alarms are also logged within the Alarms tab at the base of the screen:

Alarms	System Alarms	Log	Incident Results	Track Results
Alarm Id	Action	Description	Last Activated	Relay Id Rule Acknowledged
167	Alarm And Follow	Threat detected in Area: 4	15/01/2014 14:43:25	0 1 <input type="checkbox"/>
166	Alarm And Follow	Threat detected in Area: 5	21/01/2014 21:27:54	0 1 <input checked="" type="checkbox"/>
165	Alarm And Follow	Threat detected in Area: 2	21/01/2014 21:27:54	0 1 <input checked="" type="checkbox"/>

For each entry, the following details are listed:

- **Alarm Id** - Shows the id number given to each alarm.
- **Action** - Determined within the rule associated with the area under surveillance. Possible actions are: *None*, *Follow*, *Alarm* or *Alarm and Follow*. Follow means that the nearest camera should follow the track. Alarm means raise a specified alarm, e.g. audible for the operator and/or trigger an external system.
- **Description** - Explains the nature of the alarm.
- **Last Activated** - Indicates when the alarm was triggered by the track.
- **Relay Id** - Shows the identification number of the output relay that was programmed to be triggered as part of the alarm response.
- **Rule** - Indicates the rule that was broken by the track and triggered the alarm.
- **Acknowledged** - Becomes ticked when the user acknowledges the alarm.

To respond to an alarm using the Alarms tab

- 1 When an alarm occurs, change to the **Alarms** tab at the base of the site map.
- 2 Click on the alarm entry within the list to highlight it.
- 3 Click one of the two buttons located on the at the right side of the Alarms tab:
 - Click the **Locate** button to instruct the nearest camera to pan, tilt and zoom so that the cause of the alarm can be viewed. The site map will also respond accordingly.
 - OR
 - Click the **Dismiss** button to acknowledge and silence the alarm.



continued

Alarm acknowledge panel

Depending upon the configuration of the installation, it may be necessary for the operator to acknowledge alarms as they occur. When this option is enabled, whenever an alarm occurs, a pulsating alarm acknowledge icon will be displayed in the top centre of the screen:

Click here to display the Alarm acknowledge panel



Shows the number of alarms since the last acknowledgment

When you click the icon, the Alarm acknowledge panel will be displayed:



Choose alarms (click the top tick box to select all) and then click the **Acknowledge Selected Alarms** button

Place a tick by each alarm to be acknowledged (click the top tick box to select all) and then click the **Acknowledge Selected Alarms** button to close the panel.

A timed (and attributed) entry is placed into the log for each acknowledged alarm.

Note: It is also possible for the admin user to invoke an automatic acknowledge feature where alarms can be cleared after a set period of time.

System Alarms tab

The System Alarms tab maintains a list of any issues that were encountered within the various modules that make up the system.

If a system alarm entry is not automatically cleared, you can manually clear an entry. To do this: Click on the red circle to the left of an alarm entry and then click OK in the resulting popup to confirm the action. Once cleared, an alarm for the same problem will only occur if the fault is resolved and is then freshly detected.

Log tab

The Log tab maintains a listing of all significant events related to the operation of the Witness system.

For each entry, the following details are listed:

- **Alarm Id** - Automatically assigned index number for each alarm.
- **Time** - The date and time that the event first occurred.
- **Last Seen Time** - The last date and time that the same event was triggered.
- **Type** - Indicates the type of event: *User* (an action carried out by the operator) or *Alarm* (the status of triggered alarms).
- **Description** - A brief explanation of the event.

Database Queries

Sentinel logs and retains all monitored track data within a central database for selected periods of time. To make that archived data particularly useful, the system also features powerful query tools as well as an export function so that information can be studied externally.

Note: You must either be in admin mode (or access must be specifically granted by admin) to access the Data History functions - see [Entering admin mode](#).

Using Quick Reports

The Quick Reports popup provides immediate access to some very powerful database search tools that can help you to find various occurrences. Data searches can operate on either of two main sources of information held by the system:

- **Tracks** - includes all recorded movements of targets, and
- **Incidents/Alarms** - includes only those target movements and/or occurrences that caused rules to be broken.

To make a quick report query

- 1 Click the Navtech logo located in the top left corner of the Sentinel window to display the main menu.
- 2 Click the **Quick Reports** button to display the *Quick Reports* popup →

The first four buttons: *All Track Movement*, *All Alarm Movement*, *Short Lived Tracks* and *Lost Tracks* are all quite self explanatory. When clicked, each of these produce three additional buttons so that you can choose the appropriate time period: *Last hour*, *Last 30 minutes* or *Last minute*.

The fifth button causes the **Advanced Search** dialog to be displayed whereupon you have access to more wide ranging and powerful search tools. See right.

- 3 Choose the required option. The results from any query will be displayed at the bottom of the site map in either the *Incident Results* tab or the *Track Results* tab depending on which type of data you are searching for. See the next page for details.



The Advanced Search dialog

The Advanced Search dialog is reached via the Quick Reports popup - see left.

The two tabs within the Advanced Search provide quick access to either *Incident* or *Track* Histories, as required.

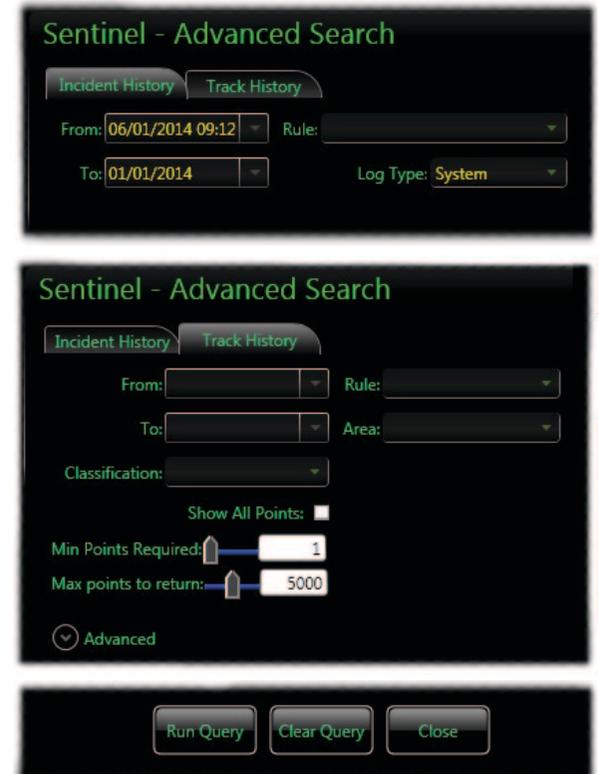
In both tabs you can define a time period for your search. Additionally, the Incident History tab allows you to also search by Rule and/or specific Log Type (e.g. Alarm, System, User, etc.).

The *Track History* tab provides many additional query items such as Area, target Classification (e.g. Vehicle, Person, etc.). In the dropdown *Advanced* section you can also refine your search for tracks using Speed, Size and/or specific track Tag details.

In the *Track History* tab you can also determine how many track points (individual sightings by the sensor(s) that you wish to include) in the results.

When your criteria are set, click the **Run Query** button. The results from your query will be displayed at the bottom of the site map in either the *Incident Results* tab or the *Track Results* tab depending on which type of data you are searching for.

See the next page for details.



Notes about creating searches

- Beware of large databases. Depending on how long the installation has been running and the way that the rules have been established, it is possible that the log contains many thousands of entries. For this reason you are recommended to initially define quite tight criteria and widen the search gradually if that does not encompass the required data.
- Where criteria are left blank, they will not be applied as limiting factors to the search.
- Searches within a large database may take a long period to complete.

Viewing the results of a quick report or advanced search

Once your quick report search or advanced search (see previous page for details) has completed, the results will be posted at the bottom of the site map in either the *Incident Results* tab or the *Track Results* tab depending on which type of data you are searching for:

Alarms		System Alarms		Log		Incident Results		Track Results	
		Description		Created		Cleared			
<input type="checkbox"/>	ALARM ON: High Threat			09/07/2012 09:16:39	09/07/2012 09:17:26				
<input checked="" type="checkbox"/>	ALARM ON: High Threat			09/07/2012 09:17:37	09/07/2012 09:17:58				
<input type="checkbox"/>	ALARM ON: High Threat			09/07/2012 09:18:34	09/07/2012 09:19:22				

A typical result from an incident/alarms search shown in the Incident Results tab

Tip: You can click a column heading in either tab to relist the entries within that tab in either ascending or (click again) descending order.

Alarms		System Alarms		Log		Incident Results		Track Results	
	Track Id	Points	Radar Id	Seen	Classification				
<input type="checkbox"/>	5006	57	0122	22/02/2012 09:16:22	Vehicle				
<input checked="" type="checkbox"/>	5007	1	0122	22/02/2012 09:16:34	Unclassified				
<input checked="" type="checkbox"/>	5008	66	0122	22/02/2012 09:16:38	Vehicle				
<input type="checkbox"/>	5013	94	0122	22/02/2012 09:19:03	Vehicle				
<input type="checkbox"/>	5015	43	0122	22/02/2012 09:19:52	Vehicle				

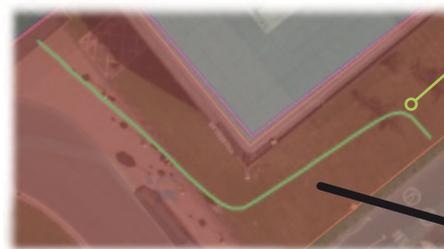
A typical result from a tracks search shown in the Track Results tab



Once search results are listed you can investigate them further or use the **Data Export** button to copy them to a file.

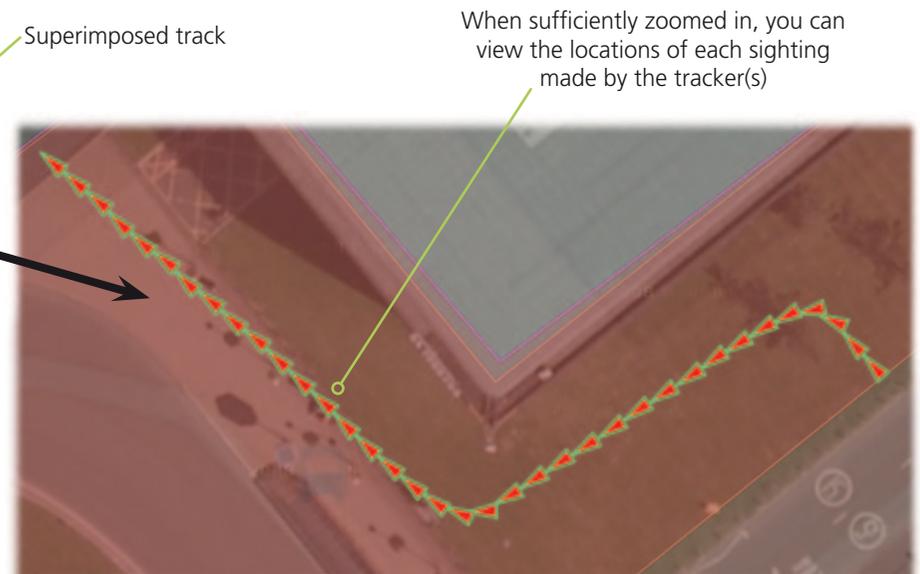
To view tracks

- If you searched for tracks, click on the **Track Results** tab. Tick the entries that you wish to view (or tick the box at the top to select them all). Then click the **Show Tracks** button to superimpose the selected points onto the site map.
- If you searched for alarms or incidents, click on the **Incident Results** tab. To search for tracks related to an alarm/incident, tick that entry and click the **Find Tracks** button. The results will be shown in the **Track Results** tab. Use the procedure described above to view the tracks.



Show All Points

Nodes are usually shown only when a rule is broken. To view all sightings of the tracked vehicle, tick **Show All Points** in the advanced search dialog. Nodes are shown as blue circles where no rules are being broken or as red triangles when they are.



Further information

This chapter contains various useful reference sections:

- [Appendix 1 - Track label properties](#)
- [Appendix 2 - Additional features for Bosch video encoders](#)
- [Appendix 3 - Radio frequency energy statement](#)

Appendix 1 - Track label properties

For each selected track, a superimposed label within the scan window provides various important details. The meanings of the various dynamic label entries are as follows:



- **Speed** Speed of track in kilometres per hour.
- **Direction** Direction that the track is moving (in degrees) relative to North (North is at the top of the screen).
- **Size** Approximate size of the track in range.
- **Lat / Long** Latitude and Longitude position of the track, assuming that the map and radar have been orientated correctly.
- **Camera** The camera that is currently allocated (if any) to follow this track.
- **Classification** Based upon the size of the tracked object, the Sentinel application will attempt to classify the vehicle type.

Appendix 2 - Additional features for Bosch video encoders

Live camera control

When a camera window is open and there is a live video feed, you can do the following:

With the camera window selected:

- Use the cursor keys to move the camera, as if using the joystick on the Sentinel interface,
- Use the + and – keys on the number pad to zoom the camera in and out. One press to start the zoom and second to stop at the desired level.

Camera menu control for Ganz C-Allview

In addition to the above, if the camera is a Ganz C-Allview and Sentinel is in admin mode:

- Select the “M” key to switch the camera menu on and off,
- With the menu on, the cursor keys enable the operator to navigate through the menu,
- Press “Enter” or “Space” to select the highlighted menu option.

Appendix 3 - Radio frequency energy statement

FCC compliance statement (United States)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

The operation of this device is limited to a fixed position at airport locations for foreign object debris detection on runways and for monitoring aircraft as well as service vehicles on taxiways and other airport vehicle service areas that have no public vehicle access. This equipment must be mounted in a fixed location maintaining a minimum separation distance of 46cm from personnel when in general operation. This restriction of operation is specific for use in North America. For use in other regions aligned to the FCC regulations, specific country restrictions should be reviewed.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.