

**RADIODETECTION** 

# **C.A.T Manager<sup>®</sup> Online**

Web Management tool for the C.A.T4  
Cable Avoidance Tool range

Operation manual

90/UG107INT/04

## Contents

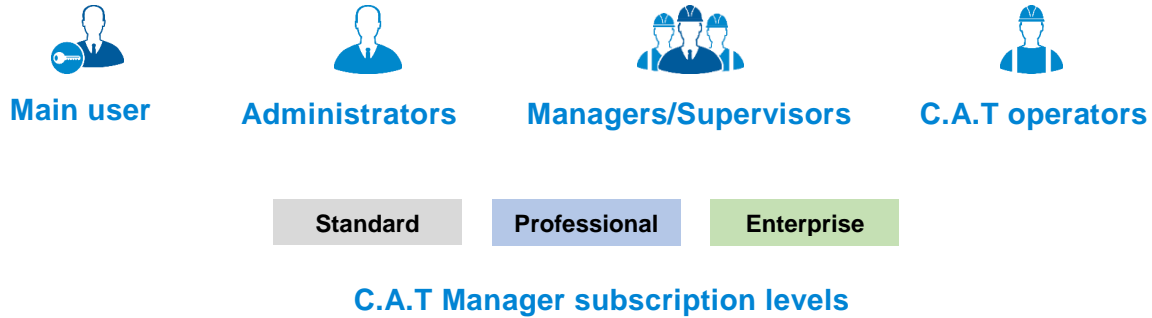
1	Preface.....	3	3.7	Reset a C.A.T Operator password / unlock or deactivate an account.....	19
1.1	Before You Begin.....	3	4	C.A.T Manager Online Dashboard .....	20
1.2	Important Notice .....	3	4.1	Dashboard .....	20
1.3	Copyright and Trademarks.....	4	4.2	C.A.T Operators Usage Overview .....	23
2	Introduction to C.A.T Manager Online .....	5	4.2.1.	Tools, options and filters .....	24
2.1	About C.A.T Manager Online .....	5	4.2.2.	Summary window .....	25
2.2	System Requirements.....	5	4.2.3.	Overview Table .....	26
2.2.1.	Updating your gC.A.T4 locator's software 5		4.2.4.	Using the Usage Overview screen .	27
2.3	Android compatibility .....	6	4.2.5.	Mode usage scoring feedback.....	27
2.4	iOS compatibility .....	6	4.2.6.	Genny signal scoring feedback .....	28
3	Radiodetection Portal account .....	7	4.2.7.	Using the C.A.T Dashboard Usage overview screen - Example .....	28
3.1	Accessing your Radiodetection Portal Account .....	7	4.3	C.A.T Scans Overview Screen .....	30
3.1.1.	Sign in.....	7	4.3.1.	Overview Table .....	31
3.2	Portal Home Page.....	8	4.3.2.	Using the Scans Overview screen..	33
3.3	C.A.T Manager Subscriptions .....	9	4.4	Managing surveys .....	38
3.3.1.	Features .....	10	4.4.1.	Automatic Survey grouping .....	39
3.3.2.	Accessing Subscription information	11	4.4.2.	Manual Survey creation.....	39
3.4	Create a C.A.T Operator .....	11	4.4.3.	Editing surveys.....	39
3.5	Monitoring C.A.T Manager Online Mobile status	16	4.5	Creating a survey report.....	40
3.6	Unlocking an account / Forgot Password .....	17	4.5.1.	Survey report structure.....	41
			4.5.2.	Exporting scans data.....	43
			4.5.3.	CSV Data Structure.....	43
			4.6	Upload C.A.T usage data .....	46
			4.7	Export Usage Data.....	49

## 1 Preface

### 1.1 Before You Begin

Please read this user manual before accessing or using the Radiodetection Portal.

Where appropriate, sections or paragraphs will start with an indication of the company's users and C.A.T Manager subscription level access rights



For further information about company users and subscription levels read section 3.

Scans and surveys scoring feedback provided by the C.A.T Manager online system is intended to be used for reference only. It cannot be used as an indication of the true performance of the operators and the quality of their surveys. You should always analyse all scans details and keep in consideration the type of survey being carried out and the nature of the location.

Google's Chrome is the only fully supported web browser, other browser will be added soon.

Note that this manual and all its contents are subject to change. Radiodetection products are under continuous development. Radiodetection Ltd reserves the right to modify the product without notice and some product changes may have taken place after this user manual was published.

This document may not be copied, reproduced, transmitted, modified or used, in whole or in part, without the prior written consent of Radiodetection Ltd.

Contact your local Radiodetection office or dealer, or visit [www.radiodetection.com](http://www.radiodetection.com) for the latest products and service information.

### 1.2 Important Notice

Radiodetection makes every effort to ensure that all technical information, statements and recommendations about its products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. In no event shall Radiodetection be liable for any loss, inconvenience, damage or problems caused through use of any equipment or software.

Due to a policy of continued development, we reserve the right to alter or amend any published specification without notice.

## 1.3 Copyright and Trademarks

Copyright © 2017 Radiodetection Ltd. All rights reserved. Radiodetection is a subsidiary of SPX Corporation. Radiodetection, C.A.T, Genny, C.A.T4, eC.A.T4, gC.A.T4, Genny4, C.A.T Manager and Strike Alert are registered trademarks of Radiodetection Ltd. in the UK and other countries.

The Bluetooth word, mark and logos are registered trademarks of Bluetooth SIG, Inc. and any use of such trademarks by Radiodetection is under license.

Google Play, Google Chrome, Google Maps and Google Earth are trademarks of Google Inc., registered in the U.S. and other countries.

Apple Store is a trademark of Apple Inc., Apple Inc., registered in the U.S. and other countries.

iOS is a trademark or registered trademark of Cisco in the U.S. and other countries.

Microsoft Windows is a registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

## 2 Introduction to C.A.T Manager Online

### 2.1 About C.A.T Manager Online

The CAT Manager Online system is an internet based remote management tool that enables near real-time usage monitoring of gC.A.T4 and Genny4 fleets, helping to drive best practice.



### 2.2 System Requirements

To take fully advantage of the C.A.T Manager online system the following components are required:

- gC.A.T4 locator updated to the latest software
- Genny4 transmitter
- A compatible Android or Apple device with C.A.T Manager online app installed and a live data connection
- PC or other computing devices with a live internet connection and with the Chrome internet browser installed
- USB 2.0, or higher standard, A-Male to Mini-B, mini to USB link cable
- A valid Radiodetection Portal Account

#### 2.2.1. Updating your gC.A.T4 locator's software

To update your gC.A.T4 locator to the latest software available install and use the C.A.T Manager for PC. This can be downloaded by visiting <https://www.radiodetection.com/resources/software-downloads/cat-manager>.

To use C.A.T Manager for PC you will need a Windows PC with XP or higher operating system.

For further information please refer to the C.A.T Manager for PC operational guide.

## 2.3 Android compatibility

All gC.A.T4 models offer Bluetooth connectivity to Radiodetection's C.A.T Manager app for android, available from the Google's Play Store.

gC.A.T4 models manufactured before August 2016 are compatible with android devices with Bluetooth connectivity and Lollipop (5.0) or higher operating system.

gC.A.T4 models manufactured from August 2016 onwards are equipped with Bluetooth Low Energy (BLE) connectivity and are compatible with BLE equipped android devices using Lollipop (5.0) or higher operating system.

To quickly identify if a gC.A.T4 is equipped with Bluetooth Low Energy connectivity check if the sentence "**Works with Android and iOS devices**" is present at the bottom of the label directly above the battery compartment.

## 2.4 iOS compatibility

All gC.A.T4 models manufactured from August 2016 onwards are compatible with iOS devices running 9 or higher operating system.



## 3 Radiodetection Portal account

Companies can create a Portal Company account by registering at <https://portal.radiodetection.com>.

Registration is free. For further information on how to register and use the Radiodetection Portal account consult the [Radiodetection Portal guide](#) or copy and paste this link [http://online.radiodetection.com/doclib/Radiodetection\\_Portal\\_User\\_Guide.pdf](http://online.radiodetection.com/doclib/Radiodetection_Portal_User_Guide.pdf) in your web browser (only Google Chrome is fully supported, other browser will be added soon).

### 3.1 Accessing your Radiodetection Portal Account



#### 3.1.1. Sign in

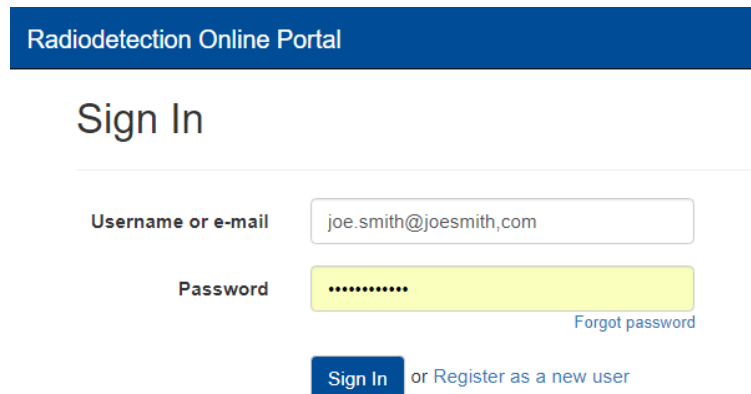
Any company users can access their Company's Radiodetection Portal account using a standard web browser.

Access to function and/or screens depends on the user type and the C.A.T manager Subscription level.

To learn more about users and their hierarchy read here

To access your company account:

1. Navigate to <https://portal.radiodetection.com>:

The screenshot shows the 'Radiodetection Online Portal' header in a blue bar. Below it is the 'Sign In' title. There are two input fields: 'Username or e-mail' with the value 'joe.smith@joesmith.com' and 'Password' with masked characters. A 'Forgot password' link is next to the password field. At the bottom, there is a 'Sign In' button and a link 'or Register as a new user'.

2. Enter your login details. The password field is case sensitive

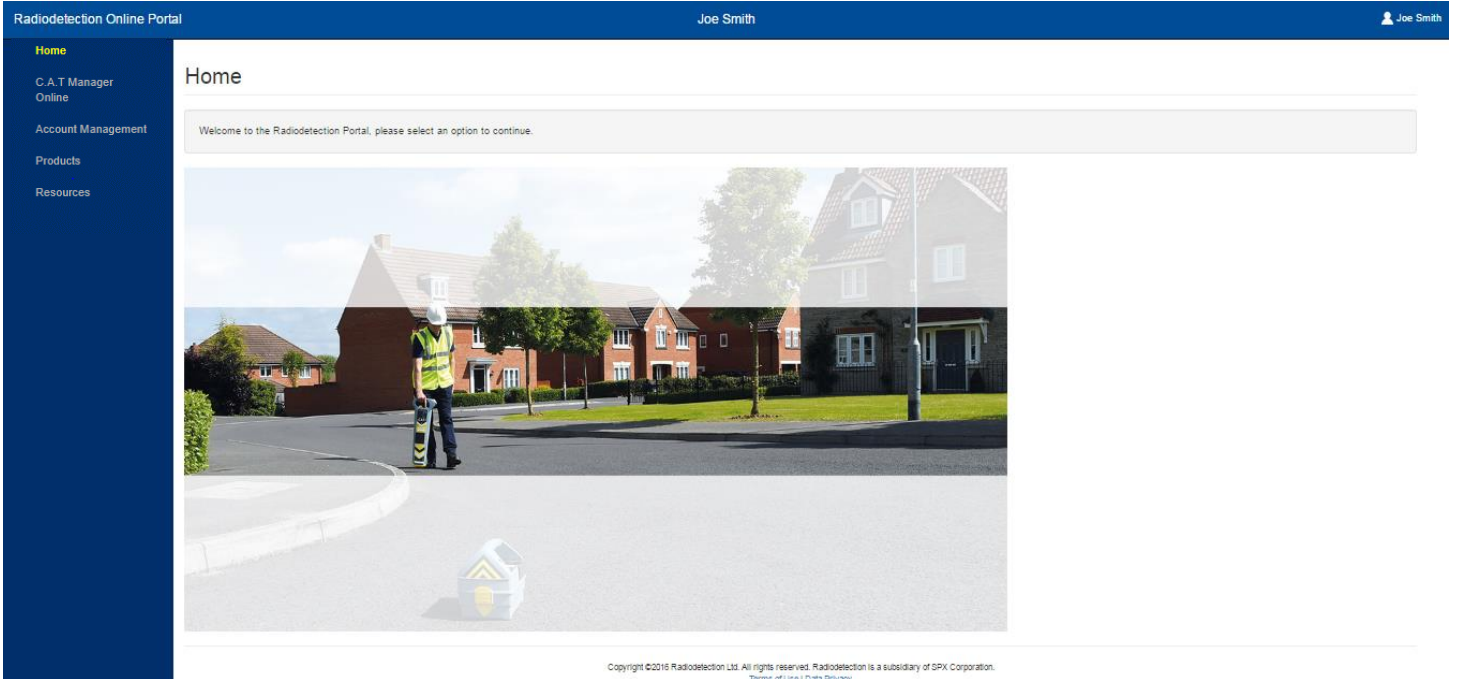
3. **Sign in**

**Warning: Your account will get locked if you enter your password wrong 5 consecutive times. To unlock your account click the [Forgot password](#) link or contact your system administrator.**

## 3.2 Portal Home Page

Company Name ↓

User ↓



↑  
Navigation panel

The Radiodetection Portal Home page is the landing page for all company users accessing their account. On the screen all users will see the company name and their registered name on the top bar.

The Navigation panel on the left side provides access to all accessible features, based on your company C.A.T Manager Online subscription level and users' permissions.



## 3.3 C.A.T Manager Subscriptions



Standard

Professional

Enterprise

When a guest user creates a company account he also subscribes to the C.A.T Manager online system.

The C.A.T Manager Online system currently offers 2 subscription levels open to the general public in the UK and Ireland only:

Subscriptions Levels		
Features	Standard	Professional
Android and Apple* mobile app	✓	✓
C.A.T fleet management	✓	✓
Online Storage	3 months	indefinite**
C.A.T operator feedback	✓	✓
Survey Analysis & Usage reporting	✓	✓
PC Backup	✓	✓
E-mail Ticket support	✓	✓
Phone Support	✗	✓
Teams and Account management	✗	✓
Advanced statistical analysis	✗	✓

\* Apple device compatibility requires the use of a gC.A.T4s supporting Bluetooth 4 (all models produced after July 2016)

\*\* Only scan summary stored after 12 months

The Enterprise subscription is available to selected UK customers only. Please contact your Radiodetection Sales representative or [contact us](#) to us for more information.

The Standard subscription is free to use.

The Professional subscription is licensed per gC.A.T4 operator. [Contact us](#) for more information or for a free trial of the Professional subscription.

## 3.3.1. Features

### Android and Apple mobile app

C.A.T Manager mobile for Android and Apple is free to download and use from their respective app stores.

### C.A.T fleet management

Register and maintain all your gC.A.T4 and Genny 4 products. Check calibration expiry date, see who last used the locator. Download the data as CSV file to use them with your company system

### Online Storage

The C.A.T Manager Online system stores and backs up all your company's gC.A.T4 data on a secure cloud based server. No need to change or use your company's IT infrastructure.

### C.A.T operator feedback

C.A.T Manager Mobile app allows the operators to receive immediate on-site feedback, helping them to improve their performance and to operate more safely

### Survey analysis & Usage reporting

All scans received from C.A.T Manager Mobile, or uploaded using the web upload function, are automatically grouped into surveys and can be reviewed using a Google's Chrome or Microsoft IE web browser. Usage analysis and Survey reports can be generated and downloaded as PDF files

### Backup option

Retrieve all your data from C.A.T Manager cloud to store on your PC or local network

### Teams and work management

gC.A.T4 operators can be organised in areas and depots, field operations in accounts and contracts.

This allows managers to review the performance of different groups of users. Reports can be generated for customers and stakeholders, showing adherence to best practice, or documenting ongoing improvements

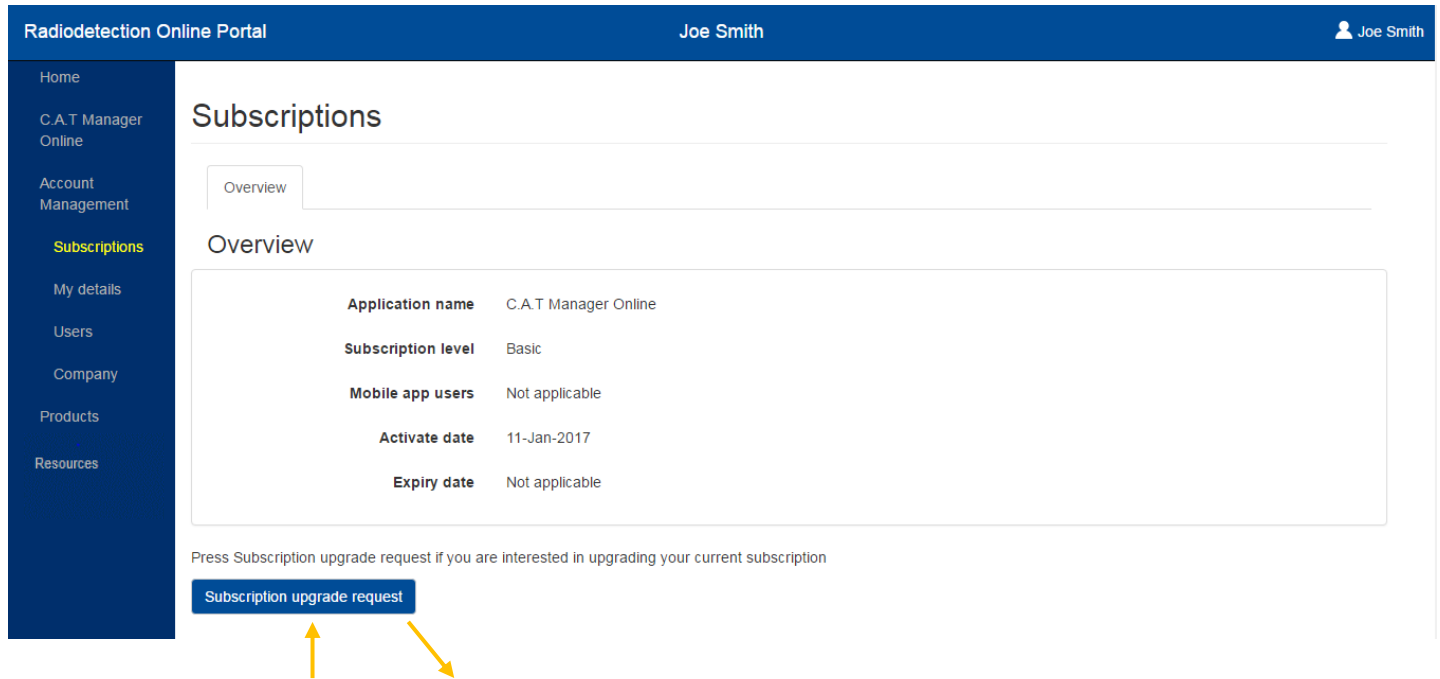
### Advanced statistical analysis


Access detailed analysis to assess users, regions and accounts. This allows objective performance reviews to aid continuous improvement processes

## 3.3.2. Accessing Subscription information

Navigate to **Account Management** ► **Subscriptions**

The Subscriptions overview screen, available only to main users and administrators, gives access to a list of all the subscriptions active for your company.



Radiodetection Online Portal Joe Smith  Joe Smith

Home  
C.A.T Manager Online  
Account Management  
**Subscriptions**  
My details  
Users  
Company  
Products  
Resources

### Subscriptions

Overview

<b>Application name</b>	C.A.T Manager Online
<b>Subscription level</b>	Basic
<b>Mobile app users</b>	Not applicable
<b>Activate date</b>	11-Jan-2017
<b>Expiry date</b>	Not applicable

Press Subscription upgrade request if you are interested in upgrading your current subscription

[Subscription upgrade request](#)

Your Subscription upgrade request has been sent to the Radiodetection Sales Team and will be actioned shortly

By default companies are automatically subscribed to the **Standard/Basic level** for C.A.T Manager online system.

The Standard subscription level is free of charge and you can start using it immediately.

If you wish to discuss or upgrade to another subscription level, click on the **Subscription upgrade request**.

The system will automatically contact a member of the Radiodetection Sales team who will contact you shortly.

## 3.4 Create a C.A.T Operator



**NOTE: You may not have access to the User's feature or to all the functionality described in this paragraph.**

A C.A.T operator is a user that can use the C.A.T Manager mobile app with a compatible gC.A.T4.

For more information about how to use the C.A.T Manager mobile app refer to the [C.A.T Manager Online – mobile user guide](#).

In general C.A.T operators are organised as Field Operators but small companies may prefer to set any user to be an operator.

Creating a user is subject to the following, role based rules:



### Main User

Able to create and manage all company users



### Administrator

Able to create and manage Administrators, Manager/Supervisor and C.A.T field operators




### Manager/Supervisor

Able to create and manage C.A.T field operators

Company users can be easily created, organised and managed by authorised users by navigating to the Overview screen:

**Account Management ► Users ► Overview**




Radiodetection Online Portal John White Ltd  Joe Smith




































Home  
C.A.T Manager Online  
Account Management  
Subscriptions  
My details  
**Users**  
Company  
Resources

## Users

Overview [Sign In History](#)

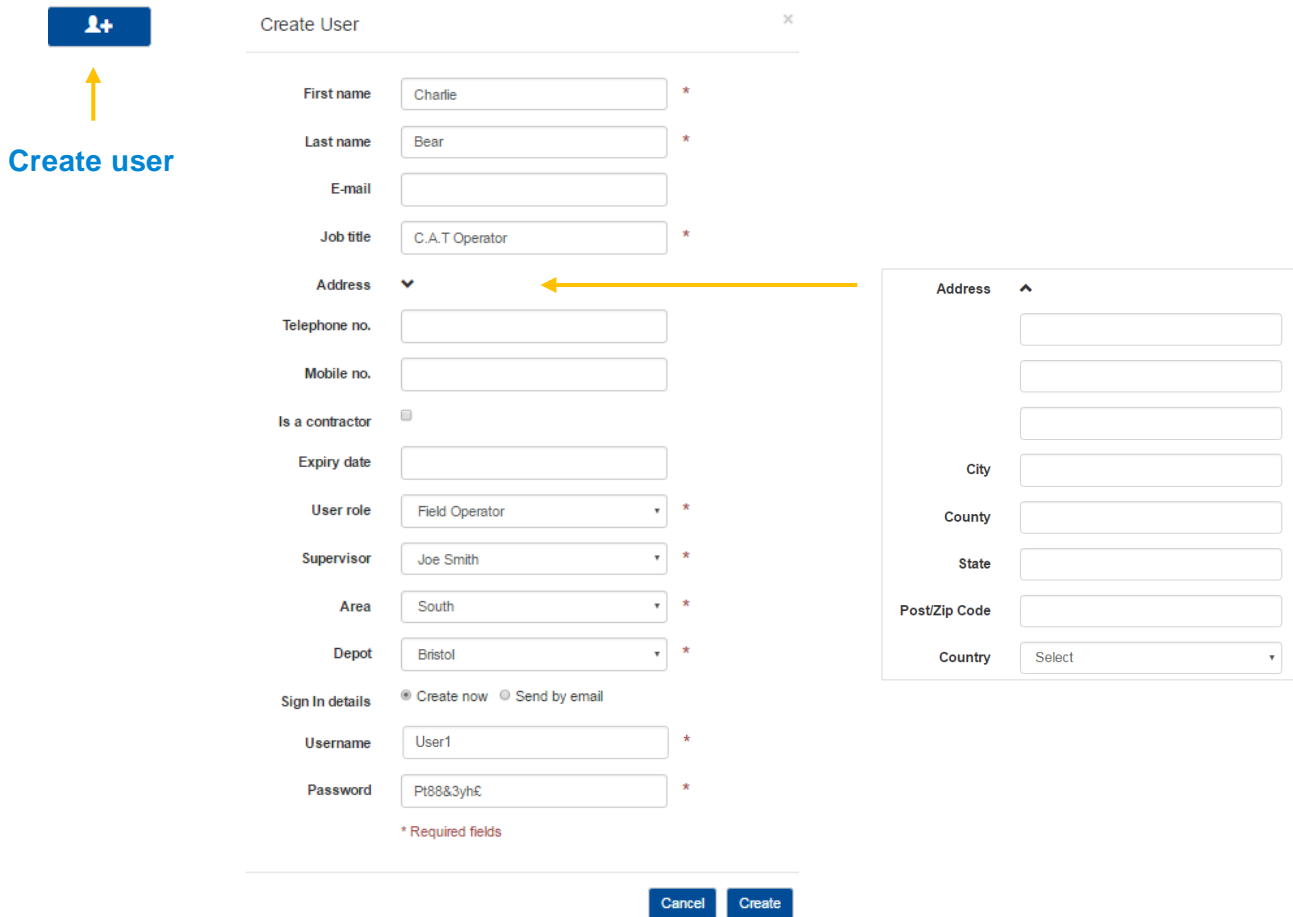
Overview

Search user     Refreshed @ 05/10/2017 08:05:04 Sort by User name: Ascendin ▾

User Name	Role	Active	Locked	C.A.T Manager	
Bill Murphy	Field Operator			00:30:21	  
Chris Stone	Administrator			Unknown	  
Ed Smith	Field Operator			Unknown	  
Frank White	Field Operator			00:02:17	  
Fred Stone	Field Operator			00:10:48	  
Joe Blog	Field Operator			Unknown	  
John Admin	Administrator			5 Days	  
John Ford	Field Operator			Unknown	  
Jon Longford	Field Operator			Unknown	  
Jordan Lord	Field Operator			00:54:20	  
Mike Long	Manager/Supervisor			Unknown	  

To create a C.A.T field operator:

1. Press the **Create user** button to access the Create user form



**Create user**

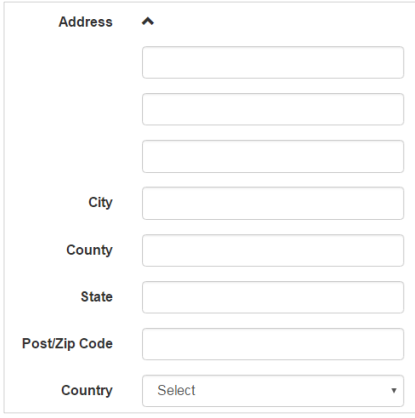
**Create User**

First name  \*

Last name  \*

E-mail

Job title  \*

Address  \* 

Telephone no.

Mobile no.

Is a contractor

Expiry date

User role  \*

Supervisor  \*

Area  \*

Depot  \*

Sign In details  Create now  Send by email

Username  \*

Password  \*

\* Required fields

**Cancel** **Create**

2. Fill the form. All fields marked with a red \* are mandatory

**NOTE Mandatory fields vary with the User role.**

3. If required you can expand the **Address** field
4. Indicate if the user you are creating **is a contractor**.  
**NOTE: This feature is not currently active.**
5. If required set an **Expiry date** for this account. The account will be automatically de-activated on the chosen date at 00:00

The account may be re-activated but a new expiry date will have to be provided

**NOTE: This feature is not currently active.**

6. Select **Field Operator** as **User role**
7. Select a **Supervisor**

**NOTE: you can also allow other user types to become a C.A.T operator, but only Field Operators can be associated to Supervisors.**

8. **Area** and **Depot** are mandatory fields if the user role is a field operator (only available to Professional and Enterprise accounts). **Default** is the only choice available if areas and depot have not been defined



9. Enter or modify the **Username** (this will be set automatically to match the e-mail address if present)

Username rules:

- **Must** only contain letters (a-z A-Z), numbers (0-9), dashes (-), apostrophes ('), underscores (\_), e-mail (@) and periods (.)
- **Cannot** contain more than one period (.) in a row
- **Cannot** start or finish with a period (.)
- **Must** be less than 50 characters









10. Indicate if you want the system to automatically generate and e-mail a temporary password for the user (**Send by e-mail** - this requires a valid e-mail address) or if you want to enter one manually (**Create now**)

Password rules:

- **Must not** contain the user's account name or parts of the user's full name that exceed 3 consecutive characters
- **Must** be at least 8 characters in length
- **Must** contain at least 1 character from 2 of the following categories:
  - English uppercase characters (A - Z).
  - English lowercase characters (a - z).
  - Base 10 digits (0 - 9).
  - Non alphanumeric characters (for example, !, \$, #, %)

11. Press **Create**

**NOTE: The user will be prompted to change the password at the first use of his login details.**

User Name	Role	Active	Locked	C.A.T Manager
Bill Murphy	Field Operator		00:30:21	   
Chris Stone	Administrator		Unknown	   

User privilege 

12. Press the **User privilege** button for the user you just created

User privileges ✕

---

User Name: Fred Stone  
Role: Field Operator

Privilege	Description	Enable
C.A.T Manager mobile app	Allows use of the C.A.T Manager mobile app	<input checked="" type="checkbox"/>

---

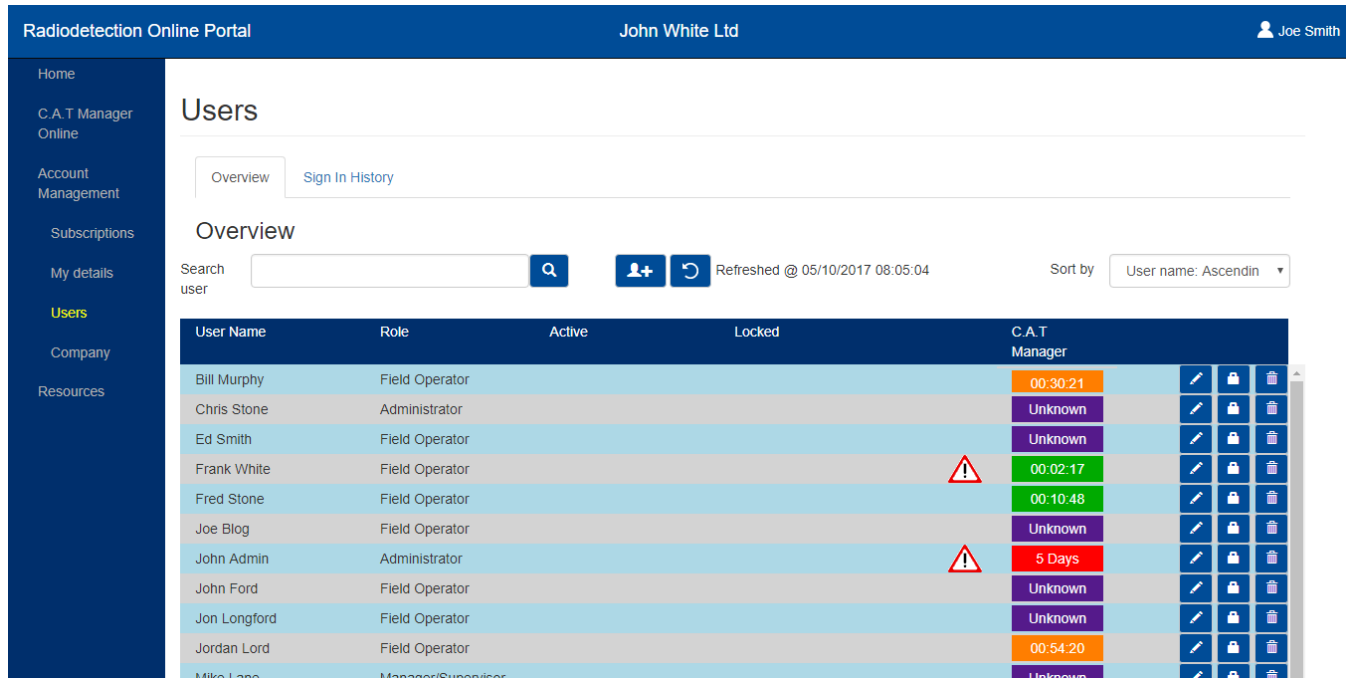
13. Enable the **C.A.T Manager mobile app** privilege

14. Press **Save**

**NOTE:** Any user can be allowed to become a C.A.T operator by setting the C.A.T Manager mobile app privilege.

**WARNING:** For Professional and Enterprise subscriptions, any C.A.T operator, regardless of his role, will count towards the maximum number of C.A.T operators allowed by the subscription limit.

## 3.5 Monitoring C.A.T Manager Online Mobile status



Radiodetection Online Portal John White Ltd Joe Smith

Home  
C.A.T Manager Online  
Account Management  
Subscriptions  
My details  
**Users**  
Company  
Resources

### Users

Overview Sign In History

Overview

Search user     Refreshed @ 05/10/2017 08:05:04 Sort by User name: Ascendin

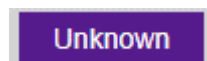
User Name	Role	Active	Locked	C.A.T Manager
Bill Murphy	Field Operator			00:30:21
Chris Stone	Administrator			Unknown
Ed Smith	Field Operator			Unknown
Frank White	Field Operator			00:02:17
Fred Stone	Field Operator			00:10:48
Joe Blog	Field Operator			Unknown
John Admin	Administrator			5 Days
John Ford	Field Operator			Unknown
Jon Longford	Field Operator			Unknown
Jordan Lord	Field Operator			00:54:20
Mike Long	Manager/Supervisor			Unknown

If the user's app is running on the end user's mobile device, it sends a status report to the cloud server every 30 minutes.

The C.A.T manager column provides the time elapse since the last status report or data connection for a standard survey data. The data is characterised using a traffic light system:




The system reports as Unknown, in purple, all users that have not used the app at least once:



A warning symbol is displayed if there are further information, such as using an older version of the app. Use the mouse to hover on the warning symbol to display the message:



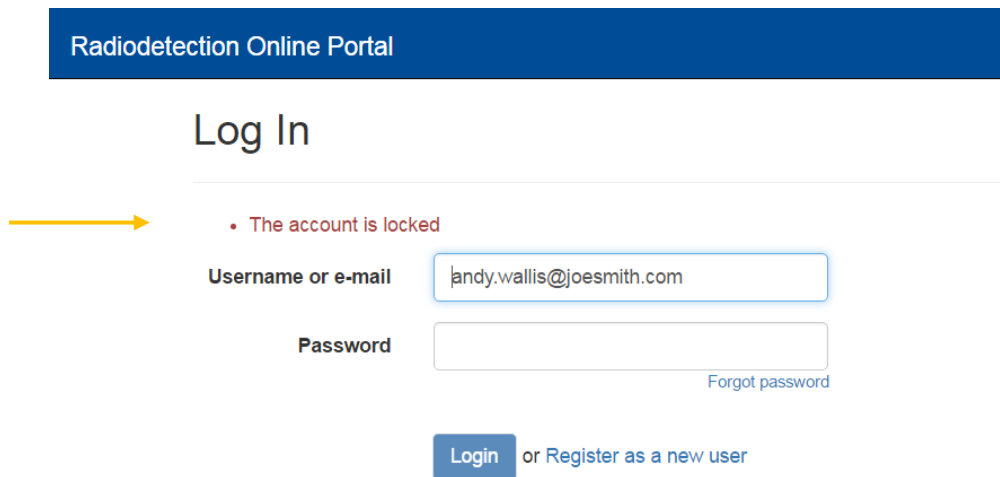
- The operator's device has Bluetooth communication turned off
- No gC.A.T locator paired with the mobile App
- The operator has not updated the Android App to version 1.1.1



**NOTE:** C.A.T Manager Online mobile app send a status update every 30 minutes, if the mobile device has a working data connection. The C.A.T Manager timer is updated every time the cloud system communicates with the mobile device. Warning messages are only updated by a status update resulting in a possible temporary discrepancy between the warning message and the timer status.

### 3.6 Unlocking an account / Forgot Password

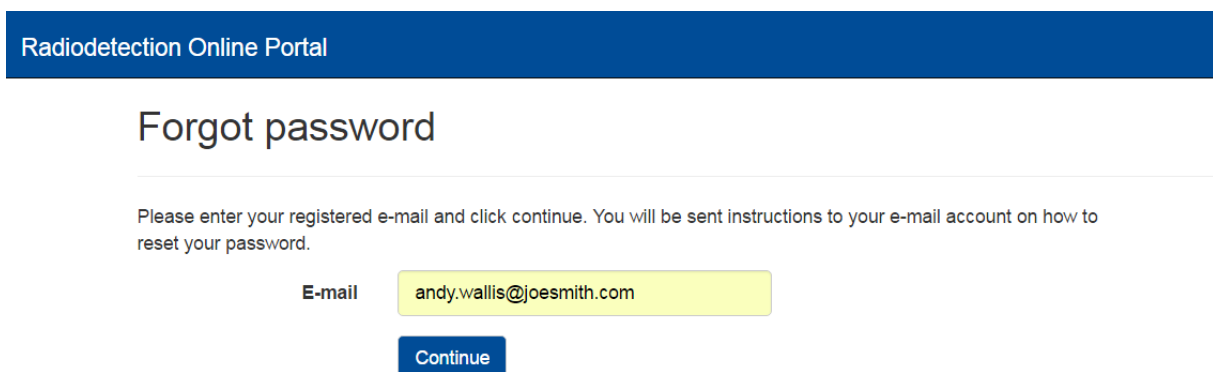
A user account is locked after 5 consecutive attempts to log in with a wrong password.



The screenshot shows the 'Radiodetection Online Portal' header. Below it is the 'Log In' section. A yellow arrow points to a red error message: '• The account is locked'. The login form contains a 'Username or e-mail' field with the text 'andy.wallis@joesmith.com' and a 'Password' field. A 'Forgot password' link is located below the password field. At the bottom of the form are two buttons: 'Login' and 'Register as a new user'.

If you are trying to Sign In into your account and you receive the message **The account is locked** you will need to unlock your account. You can contact an account administrator or, if your username is valid e-mail address, you can follow the **Forgot Password** procedure:

1. Click on the [Forgot Password](#) link



The screenshot shows the 'Radiodetection Online Portal' header. Below it is the 'Forgot password' section. The text reads: 'Please enter your registered e-mail and click continue. You will be sent instructions to your e-mail account on how to reset your password.' Below this text is an 'E-mail' field with the text 'andy.wallis@joesmith.com' and a 'Continue' button.

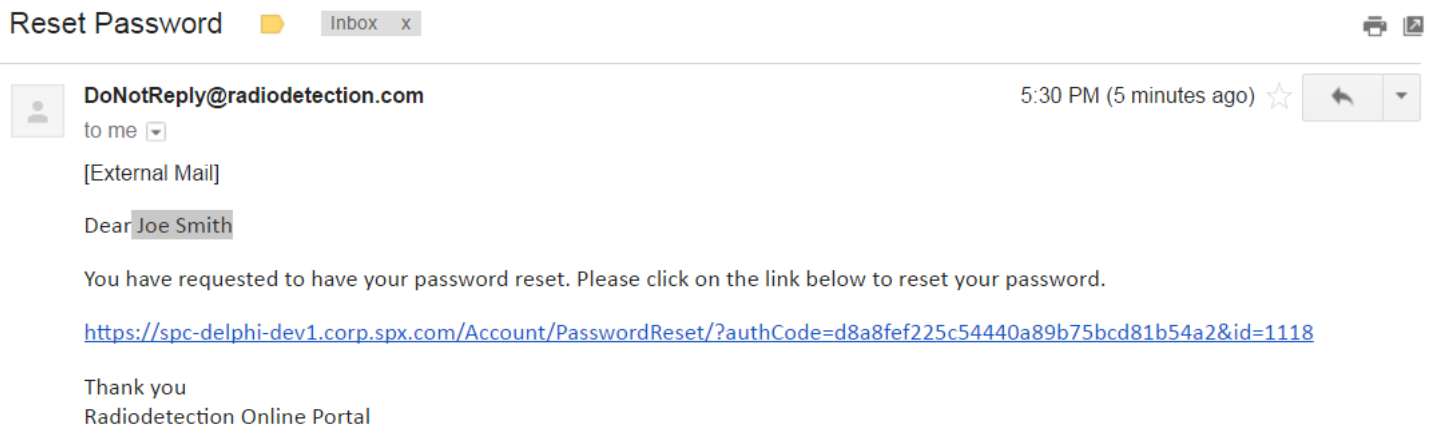
2. Enter your registered **E-mail**
3. Press **Continue**

If your e-mail is registered with us you will receive an e-mail with a reset link

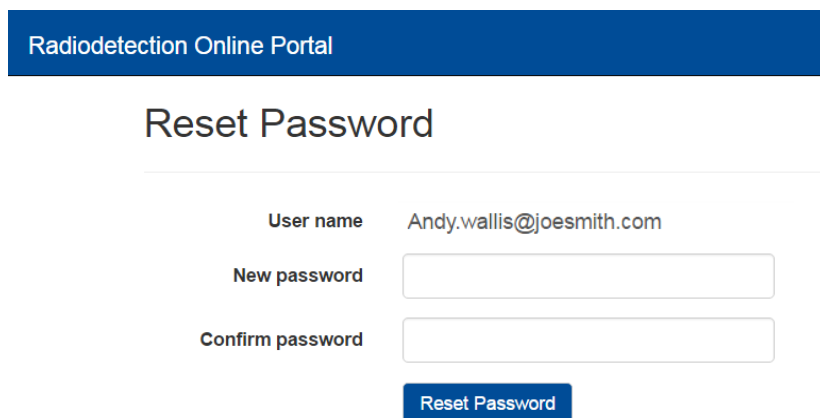
4. Go to your e-mail inbox and open the Radiodetection's reset password e-mail

**NOTE: Try again if you have not received the reset password e-mail within 5 minutes. Before doing so:**

- **Make sure you have entered your registered e-mail**
- **Check your spam folder to make sure it didn't end up there**
- **Try adding DoNotReply@radiodetection.com to your address book**
- **Some email account security will disable the link, the https address will need to be copied and pasted into a web browser**



5. Click on the reset **link**



The screenshot shows the "Radiodetection Online Portal" header. Below it is the "Reset Password" title. The form contains three fields: "User name" with the value "Andy.wallis@joesmith.com", "New password" (empty), and "Confirm password" (empty). A blue "Reset Password" button is at the bottom.

6. Enter and confirm your new **password**

Password rules:

**Must not** contain the user's account name or parts of the user's full name that exceed 3 consecutive characters.

**Must** be at least 8 characters in length.

**Must** contain at least 1 character from 2 of the following categories:

- English uppercase characters (A - Z).
- English lowercase characters (a - z).
- Base 10 digits (0 - 9).
- Non alphanumeric characters (for example, !, \$, #, %)

7. Press the **Reset Password** button. If successful you will be logged in and redirected to your home page

### 3.7 Reset a C.A.T Operator password / unlock or deactivate an account

If you are managing C.A.T operators who may have forgotten their password or locked their account or if you wish to deactivate their access to the Radiodetection Portal and the C.A.T Manager Online system, read the [Manage Company Users article](#)

## 4 C.A.T Manager Online Dashboard

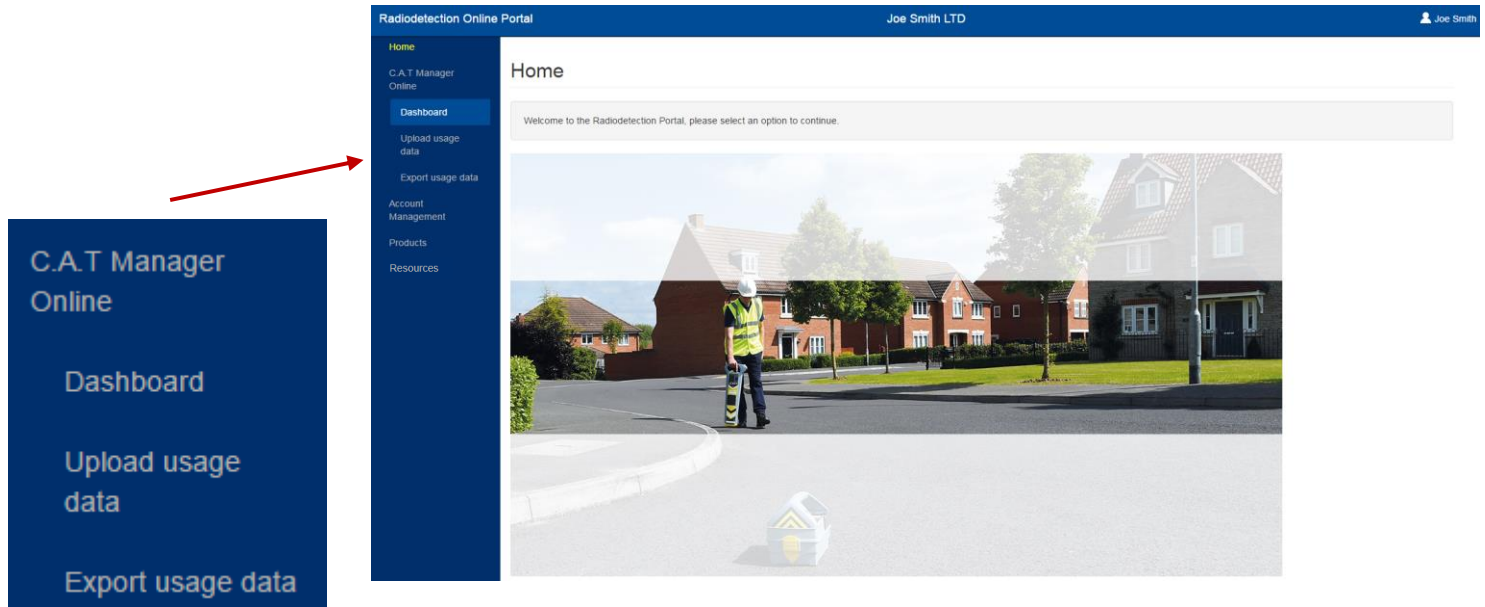


Standard

Professional

Enterprise

You can access the C.A.T Manager features by navigating to **C.A.T Manager Online**

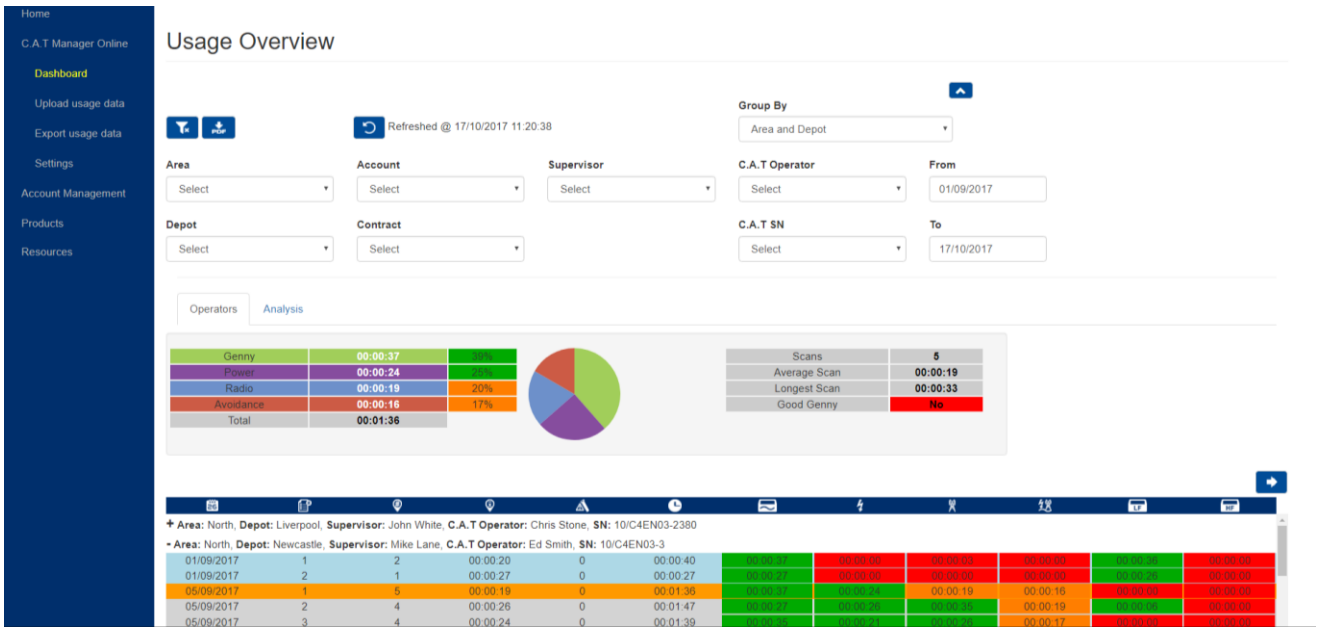


### 4.1 Dashboard

The C.A.T Manager Online dashboard gives users access to the company's C.A.T operators usage history, and for Professional and Enterprise account to a detailed statistical analysis of the C.A.T operators operations.

Standard users can review the last 3 months of data.

Professional and Enterprise users can see all their data.



This screen is accessible by every active company user:



### Main Users and Administrators

They have access to all of their company's C.A.T operators usage data and statistical analysis



### Managers/Supervisors

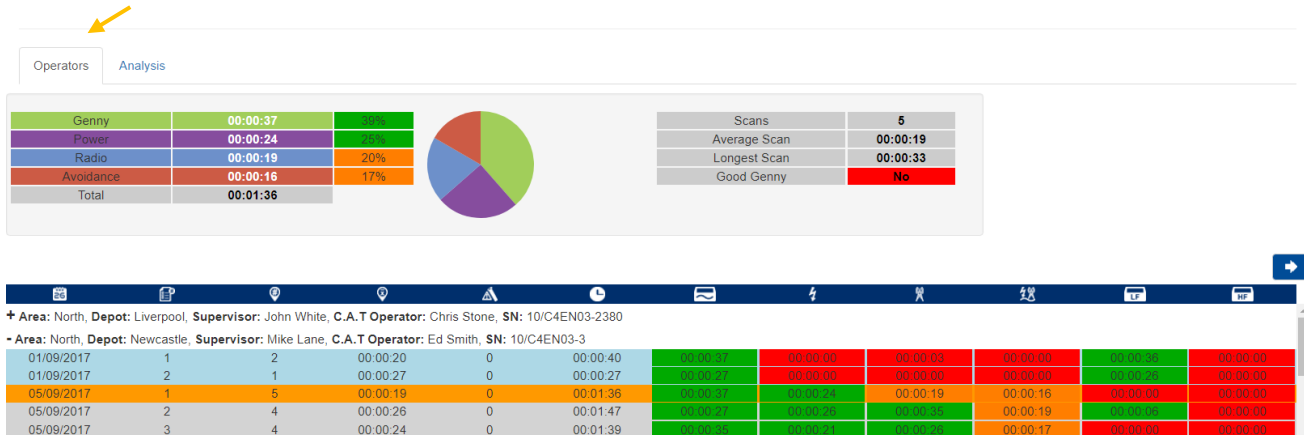
They have access to their operators' C.A.T usage data and statistical analysis



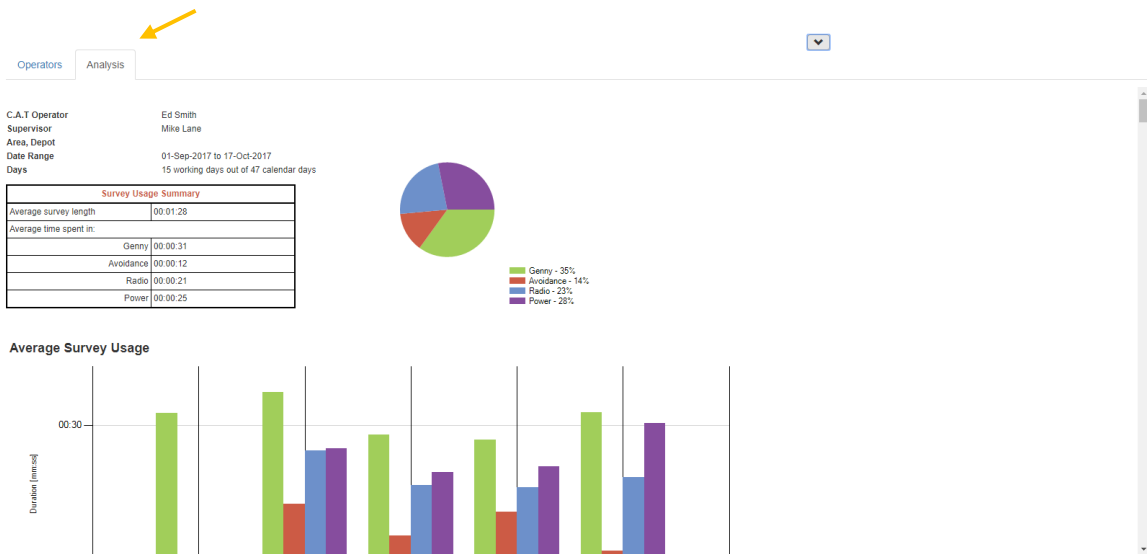
### C.A.T Operators

They have access to their own data and statistical analysis use the mobile app and may log into the portal to review their performance

- the **Operators Usage Overview /Analysis** is the top level which is split into 2 tabs:
  - **Operators** tab which offers the C.A.T summary overview screen



- **Analysis** tab which provides a detailed statistical analysis of the operator operations. This is only available to Professional and Enterprise subscription users



- the **Scans Overview** is the bottom level and gives access to more detailed, x scan based, overview analysis



Date: 01/03/2017    C.A.T Operator: Fred Stone    C.A.T SN: 10/C4EN03-1935    Area: North    Depot: Newcastle

**Survey: 1**

Genny	00:02:05	85%
Power	00:01:23	75%
Radio	00:01:28	77%
Avoidance	00:00:31	9%
<b>Total</b>	<b>00:05:27</b>	
Max Gain	100	
Min Gain	0	
Swing	14	
Warnings		
GPS	Yes	

**Scan: 6**

Genny	00:00:00
Power	00:00:00
Radio	00:00:26
Avoidance	00:00:00
<b>Total</b>	<b>00:00:26</b>
Max Gain	100
Min Gain	93.1
Swing	2
Warnings	
GPS	Yes



Reset To Survey View  
 Reset To Day View  
 Centre  
 ↑ ↓



Date	Area	Depot	Operator	SN	Start	End	Power	Radio	Avoidance	Total	Max Gain	Min Gain	Swing	Warnings	GPS
01/03/2017	Default	1	10:26:10	00:00:11	00:00:11	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	94.5	0	1	
01/03/2017	Default	2	10:27:11	00:00:02	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	97.7	97.7	50	1	
01/03/2017	Default	3	10:27:25	00:00:11	00:00:11	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	97.7	97.7	100	1	
01/03/2017	Default	4	10:28:04	00:00:12	00:00:00	00:00:12	00:00:00	00:00:00	00:00:00	00:00:00	95.9	53.5	83	1	
01/03/2017	Default	5	10:34:34	00:00:11	00:00:00	00:00:11	00:00:00	00:00:00	00:00:00	00:00:00	100	88.5	90	1	
01/03/2017	Default	6	10:58:11	00:00:26	00:00:00	00:00:26	00:00:00	00:00:00	00:00:00	00:00:00	100	93.1	92	1	
01/03/2017	Default	7	10:58:57	00:00:34	00:00:00	00:00:34	00:00:00	00:00:00	00:00:00	00:00:00	95.6	55.7	97	1	
01/03/2017	Default	8	10:59:37	00:00:28	00:00:00	00:00:28	00:00:00	00:00:00	00:00:00	00:00:00	100	96.7	92	1	
01/03/2017	Default	9	13:27:19	00:00:19	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	95	91.5	0	1	

## 4.2 C.A.T Operators Usage Overview

Refreshed @ 17/10/2017 11:31:41

Area:     Account:     Supervisor:

Depot:     Contract:

Group By:

C.A.T Operator:     From:

C.A.T SN:     To:

**Tools, options and filters**

Operators    Analysis



Summary window


Overview table


- + Area: North, Depot: Liverpool, Supervisor: John White, C.A.T Operator: Chris Stone, SN: 10/C4EN03-2380
- + Area: North, Depot: Newcastle, Supervisor: Mike Lane, C.A.T Operator: Ed Smith, SN: 10/C4EN03-3
- + Area: North, Depot: Newcastle, Supervisor: Mike Lane, C.A.T Operator: Fred Stone, SN: 10/C4EN03-9333
- + Area: North, Depot: Newcastle, Supervisor: Mike Lane, C.A.T Operator: Fred Stone, SN: 10/C4EN03-9555
- + Area: South, Depot: Southampton, Supervisor: John White, C.A.T Operator: John Ford, SN: 10/C4EN03-1
- + Area: North, Depot: Liverpool, Supervisor: Mike Lane, C.A.T Operator: Jordan Lord, SN: 10/C4EN03-2

The C.A.T Usage overview screen has 3 different sections:

## 4.2.1. Tools, options and filters

 Refreshed @ 17/10/2017 11:31:41

Group By


▼
 Area and Depot

**Area**

**Account**

**Supervisor**

**C.A.T Operator**

**From**

**Depot**

**Contract**





**C.A.T SN**

**To**

This section provides a number of commands, options and filters to help review your company's data.

Area, Depot, Account, Contract and Supervisor are only available for **Professional or Enterprise** subscriptions.

Available commands are:

Command	Description
	<b>Clear filters</b>
	<b>Download a PDF</b> summary report of the data shown in the overview table
	<b>Refresh</b> to obtain the latest data from your C.A.T operators in the field
	<b>Hide</b> this section

Professional and Enterprise users have the option to change the grouping of the table data:

### Group by Area and Depot (default option)

- + Area: North, Depot: Liverpool, Supervisor: John White, C.A.T Operator: Chris Stone, SN: 10/C4EN03-2380
- + Area: North, Depot: Newcastle, Supervisor: Mike Lane, C.A.T Operator: Ed Smith, SN: 10/C4EN03-3
- + Area: North, Depot: Newcastle, Supervisor: Mike Lane, C.A.T Operator: Fred Stone, SN: 10/C4EN03-9333
- + Area: North, Depot: Newcastle, Supervisor: Mike Lane, C.A.T Operator: Fred Stone, SN: 10/C4EN03-9555
- + Area: South, Depot: Southampton, Supervisor: John White, C.A.T Operator: John Ford, SN: 10/C4EN03-1
- + Area: North, Depot: Liverpool, Supervisor: Mike Lane, C.A.T Operator: Jordan Lord, SN: 10/C4EN03-2

### or by Account and Contract

- + Account: Default, Contract: Default, Supervisor: Mike Lane, C.A.T Operator: Fred Stone, SN: 10/C4EN03-9333
- + Account: Default, Contract: Default, Supervisor: Mike Lane, C.A.T Operator: Fred Stone, SN: 10/C4EN03-9555
- + Account: Bristol Gas, Contract: Detect and repair, Supervisor: Mike Lane, C.A.T Operator: Ed Smith, SN: 10/C4EN03-3
- + Account: Bristol Gas, Contract: Detect and repair, Supervisor: John White, C.A.T Operator: John Ford, SN: 10/C4EN03-1
- + Account: Bristol Gas, Contract: Detect and repair, Supervisor: Mike Lane, C.A.T Operator: Jordan Lord, SN: 10/C4EN03-2
- + Account: Bristol Water, Contract: Mop And Fix, Supervisor: John White, C.A.T Operator: Chris Stone, SN: 10/C4EN03-2380

Filters provide a quick and easy way to narrow down usage data to a specific subset.



Group By:

Area:  Account:  Supervisor:  C.A.T Operator:  From:

Depot:  Contract:  C.A.T SN:  To:

1. Filter by Areas, Depots, Contracts, Accounts and Supervisors (Professional and Enterprise only)
2. Filter by C.A.T operators and C.A.T serial numbers
3. Filter by a date range

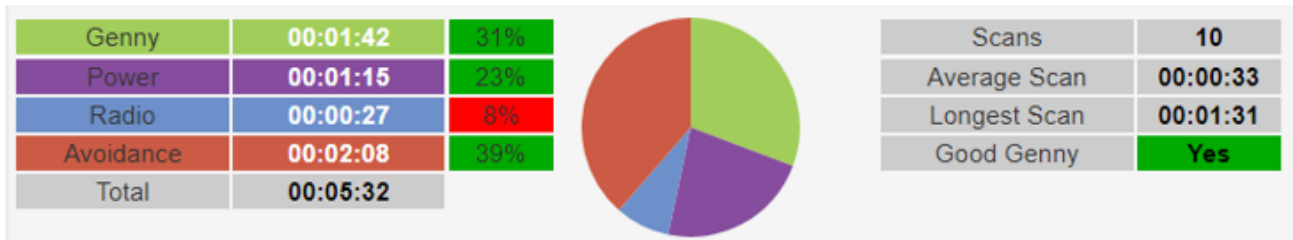
The **From - To** date range cannot be empty

Filters are automatically applied when a selection is made and will affect all the others. For example if you select a specific user all the other filters will only show values available to that specific user.

To reset the filters press the **clear filter** button.

**NOTE:** When opening the dashboard screen the date filter range is set to the current date: the overview table and the filters may be empty if no C.A.T usage is available for the day.

#### 4.2.2. Summary window



The summary window becomes active when hovering with your mouse over the C.A.T data in the overview table below and shows the scans summary of the day or survey highlighted in yellow













Date	Area	Depot	Contract	Account	Supervisor	C.A.T Operator	C.A.T SN	Start Time	End Time	Scan Time	Scan Type	Scan Status
11/10/2017	2	3	00:00:34	0	00:01:44	00:00:04	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	3	3	00:00:14	0	00:00:42	00:00:13	00:00:10	00:00:11	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	4	3	00:00:09	0	00:00:28	00:00:13	00:00:08	00:00:07	00:00:00	00:00:00	00:00:02	00:00:00
11/10/2017	5	3	00:00:19	0	00:00:58	00:00:13	00:00:00	00:00:13	00:00:00	00:00:00	00:00:00	00:00:00

You can lock a specific survey by clicking anywhere on the desired row which will turn partially orange

Date	Area	Depot	Contract	Account	Supervisor	C.A.T Operator	C.A.T SN	Start Time	End Time	Scan Time	Scan Type	Scan Status
11/10/2017	2	3	00:00:34	0	00:01:44	00:00:04	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	3	3	00:00:14	0	00:00:42	00:00:13	00:00:10	00:00:11	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	4	3	00:00:09	0	00:00:28	00:00:13	00:00:08	00:00:07	00:00:00	00:00:00	00:00:02	00:00:00
11/10/2017	5	3	00:00:19	0	00:00:58	00:00:13	00:00:00	00:00:13	00:00:00	00:00:00	00:00:00	00:00:00

To unlock click again on the highlighted row












## 4.2.3. Overview Table


           											
Account: Default, Contract: Default, C.A.T Operator: Lou White, SN: 10/C4EN03-630999											
03/05/2016	1	1	00:00:05	0	00:00:05	00:00:00	00:00:00	00:00:00	00:00:05	00:00:00	00:00:01
03/05/2016	2	9	00:00:15	2	00:02:18	00:01:17	00:00:35	00:00:12	00:00:14	00:00:51	00:00:00
03/05/2016	3	1	00:00:06	0	00:00:06	00:00:00	00:00:00	00:00:00	00:00:06	00:00:00	00:00:01
03/05/2016	4	10	00:00:09	0	00:01:36	00:00:54	00:00:13	00:00:08	00:00:21	00:00:42	00:00:00
03/05/2016	5	11	00:00:14	3	00:02:36	00:01:17	00:00:44	00:00:12	00:00:23	00:01:01	00:00:01
04/05/2016	1	21	00:00:22	2	00:07:54	00:03:58	00:00:38	00:00:55	00:02:23	00:03:47	00:00:00

The overview table shows the data available for the applied filters, grouped by users and C.A.T SN.

**NOTE: When you first access the dashboard, the date range filter is set to today's date.**


The overview table provides the following information:

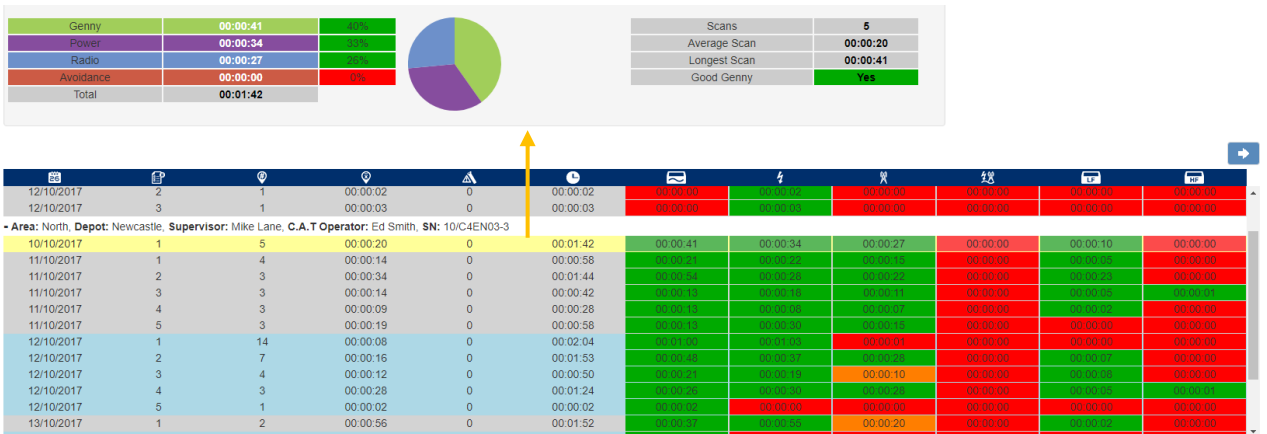
Icon	Description
	<b>Date</b>
	<b>Survey number</b> for a specific day Shown when the overview shows a surveys summary
	Daily or Survey <b>scans count</b>
	Daily or Survey <b>average scan duration*</b> Mathematical scan average duration for the scans in that day or survey
	Daily or Survey <b>swing warnings count</b>
	Daily or Survey <b>overall duration*</b> How long the C.A.T was used in that day or survey
	<b>Genny duration*</b> How long the C.A.T was used in Genny mode in that day or survey
	<b>Power duration*</b> How long the C.A.T was used in Power mode in that day or survey
	<b>Radio duration*</b> How long the C.A.T was used in Radio mode in that day or survey
	<b>Avoidance duration*</b> How long the C.A.T was used in Avoidance mode in that day or survey
	<b>Low Frequency Genny signal duration*</b> How long the C.A.T has detected a low frequency Genny signal with a strength greater than 10% of full scale on the display - Avoidance and Genny mode only

Icon	Description
	<p><b>High Frequency Genny signal duration*</b></p> <p>How long the C.A.T has detected a high frequency Genny signal with a strength greater than 10% of full scale on the display - Avoidance and Genny mode only</p>

\* Measured in hh:mm:ss

#### 4.2.4. Using the Usage Overview screen

**Click to expand** 




Genny	00:00:41	High
Power	00:00:34	High
Radio	00:00:27	High
Avoidance	00:00:00	Low
Total	00:01:42	

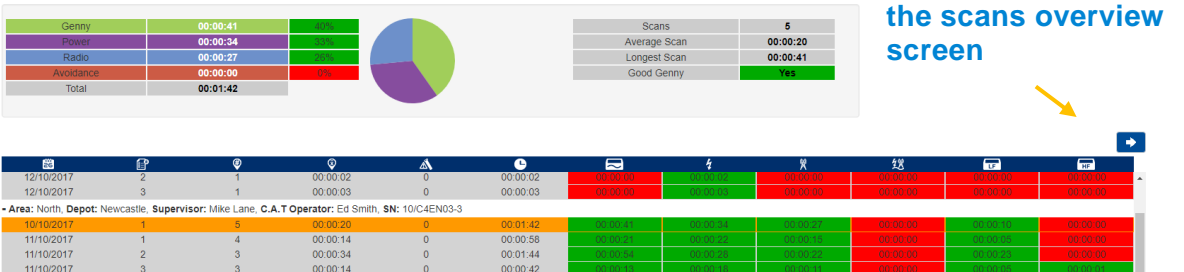
Scans	5
Average Scan	00:00:20
Longest Scan	00:00:41
Good Genny	Yes


Date	Area	Depot	Supervisor	C.A.T Operator	SN	Genny	Power	Radio	Avoidance	Good Genny
12/10/2017	2	1	00:00:02	0	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
12/10/2017	3	1	00:00:03	0	00:00:03	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
- Area: North, Depot: Newcastle, Supervisor: Mike Lane, C.A.T Operator: Ed Smith, SN: 10/C4EN03-3										
10/10/2017	1	5	00:00:20	0	00:01:42	00:00:41	00:00:34	00:00:27	00:00:00	00:00:10
11/10/2017	1	4	00:00:14	0	00:00:58	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	2	3	00:00:34	0	00:01:44	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	3	3	00:00:14	0	00:00:42	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	4	3	00:00:09	0	00:00:28	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
11/10/2017	5	3	00:00:19	0	00:00:58	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
12/10/2017	1	14	00:00:08	0	00:02:04	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
12/10/2017	2	7	00:00:16	0	00:01:53	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
12/10/2017	3	4	00:00:12	0	00:00:50	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
12/10/2017	4	3	00:00:28	0	00:01:24	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
12/10/2017	5	1	00:00:02	0	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00
13/10/2017	1	2	00:00:56	0	00:01:52	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00

Using the C.A.T Usage Screen overview:

1. Choose how to summarise the data: by Areas and Depots or Accounts and Contracts (Professional and Enterprise only)
2. Use the filters to narrow down to the desired subset
3. If the table shows any results, click on any row to show the overview summary
4. Hover with the mouse on the expanded data, the summary window will display a more detailed summary for the survey highlighted in yellow

**Click to navigate to the scans overview screen** 



**Click to select** 

5. Click on the survey to select it and lock the summary view screen. The row will be highlighted in orange
6. Click on the left arrow, which activates when a survey is selected, to navigate to the C.A.T scans overview screen for the day selected

#### 4.2.5. Mode usage scoring feedback

The C.A.T Manager online system provides a visual feedback on the overall, daily or survey, C.A.T mode usage using a traffic light style colour scoring.

Each mode overall use (duration) is compared to the overall usage during the specific survey or day. Colour scoring follows the following table.

Less than 10%
Between 10% and 20%
More than 20%

**NOTE: The scoring feedback provided by the C.A.T Manager online system is intended to be used for reference only. It cannot be used as an indication of the true performance of the operators and the quality of their surveys**

#### 4.2.6. Genny signal scoring feedback

The C.A.T Manager online system provides a visual indication if a Genny signal, with a strength above 10% of the full scale on the display, was received or not

No signal above 10%
Presence of signal above 10%

This rule is used to score High Frequency and Low Frequency Genny duration in the table and Good Genny (HF Genny + LF Genny) in the summary window.

**NOTE: The scoring feedback provided by the C.A.T Manager online system is intended to be used for reference only. It cannot be used as an indication of the true performance of the operators and the quality of their surveys.**

#### 4.2.7. Using the C.A.T Dashboard Usage overview screen - Example

Let's assume you want to review one specific operator

1. Select a date range and C.A.T operator's name
2. Select the C.A.T Serial Number you want to review and expand the data

The screenshot shows the Radiodetection software interface. At the top, there are filter options for Area, Account, Supervisor, Depot, and Contract. A 'Group By' dropdown is set to 'Area and Depot'. The 'C.A.T Operator' is 'martin barry' and the date range is from '01/10/2017' to '17/10/2017'. Below the filters, there are two tabs: 'Operators' and 'Analysis'. The 'Analysis' tab is active, showing a summary table and a pie chart. The summary table includes: Scans: 19, Average Scan: 00:00:37, Longest Scan: 00:02:24, and Good Genny: Yes. The pie chart shows the distribution of scan types: Genny (55%), Power (27%), Radio (12%), and Avoidance (6%). Below the summary is a table with columns for Date, Survey, Scans, Average Scan, Longest Scan, and Good Genny. The table shows data for various dates from 02/10/2017 to 09/10/2017. An arrow points to the first row of the table, which is highlighted in yellow.

3. Hover with the mouse on the expanded rows in the table overview to review usage

On the 02/10/2017, C.A.T operator **Martin Bary**, belonging to **Western Drive** depot of the **Bristol** area, was using C.A.T serial number **10/C4EN03-2131**. He completed 2 surveys.

The screenshot shows the expanded survey data for 02/10/2017. The header indicates: Area: Bristol, Depot: Western Drive, Supervisor: None, C.A.T Operator: martin barry, SN: 10/C4EN03-2131. The table has columns for Survey, Scans, Average Scan, Longest Scan, and Good Genny. The data is as follows:

Survey	Scans	Average Scan	Longest Scan	Good Genny
1	7	00:00:06	00:00:45	00:00:00
2	19	00:00:37	00:01:52	00:00:11

Looking in more detail at the highlighted survey above we can see (left to right) that on that day the C.A.T operator:

- In **survey 2**
- completed **19** different scans
- was averaging 37seconds per scan
- he had **9 swing warnings**
- used the locator for **11 minutes and 52 seconds** in total
- used Genny for **6 minutes 29 seconds in total** – green score (55% of the total time)
- used Power for **3 minutes 9 seconds** in total – green score (27% of the total time)
- used Radio for **1 minute 28 seconds** in total – orange score (12% of the total time)
- used Avoidance for **46 seconds** in total – red score (6% of the total time)
- located a valid Low Frequency Genny signal for 5 minutes 33 seconds – green score
- located a valid High Frequency Genny signal for 7 seconds – green score

## 4.3 C.A.T Scans Overview Screen

To navigate to the Scans overview screen, you must first select the survey you want to analyse: click with your mouse on the desired survey and then press the left arrow.

**Click to select** (arrow pointing to the survey table)

**Click to navigate to the scans overview screen** (arrow pointing to the left arrow icon)

Category	Time	Status
Genny	00:00:41	OK
Power	00:00:34	OK
Radio	00:00:27	OK
Avoidance	00:00:00	OK
Total	00:01:42	OK

Scans	Count
Scans	5
Average Scan	00:00:20
Longest Scan	00:00:41
Good Genny	Yes

Date	Area	Depot	Supervisor	C.A.T Operator	SN	Scans	Power	Radio	Avoidance	Total	Good Genny
12/10/2017	North	Newcastle	Mike Lane	Ed Smith	10/C4EN03-3	2	1	00:00:02	0	00:00:02	00:00:00
12/10/2017	North	Newcastle	Mike Lane	Ed Smith	10/C4EN03-3	3	1	00:00:03	0	00:00:03	00:00:00
10/10/2017	North	Newcastle	Mike Lane	Ed Smith	10/C4EN03-3	1	5	00:00:20	0	00:01:42	00:00:00
11/10/2017	North	Newcastle	Mike Lane	Ed Smith	10/C4EN03-3	4	3	00:00:14	0	00:00:58	00:00:00
11/10/2017	North	Newcastle	Mike Lane	Ed Smith	10/C4EN03-3	2	3	00:00:34	0	00:01:44	00:00:00
11/10/2017	North	Newcastle	Mike Lane	Ed Smith	10/C4EN03-3	3	3	00:00:14	0	00:00:42	00:00:00

**Summary**

Date: 02/10/2017    C.A.T Operator: martin barry    C.A.T SN: 10/C4EN03-2131    Area: Bristol    Depot: Western Drive

**Map**

Map controls: Map, Satellite, Centre, +, -

**Detailed Scan Table**

Date	Area	Depot	Supervisor	C.A.T Operator	SN	Scans	Power	Radio	Avoidance	Total	Good Genny
02/10/2017	Default					1	09:20:35	00:00:09	00:00:00	00:00:09	00:00:00
02/10/2017	Default					2	09:20:44	00:00:02	00:00:00	00:00:02	00:00:00
02/10/2017	Default					3	09:20:46	00:00:02	00:00:00	00:00:02	00:00:00
02/10/2017	Default					4	09:20:48	00:00:03	00:00:00	00:00:03	00:00:00
02/10/2017	Default					5	09:20:51	00:00:03	00:00:00	00:00:03	00:00:00
02/10/2017	Default					6	09:20:54	00:00:19	00:00:00	00:00:00	00:00:19
02/10/2017	Default					7	09:21:26	00:00:07	00:00:00	00:00:00	00:00:07
02/10/2017	Default					8	10:01:43	00:00:13	00:00:00	00:00:00	00:00:13
02/10/2017	Default					9	10:02:15	00:00:05	00:00:00	00:00:00	00:00:05
02/10/2017	Default					10	10:02:24	00:00:10	00:00:00	00:00:00	00:00:10
02/10/2017	Default					11	10:55:39	00:00:02	00:00:00	00:00:00	00:00:02
02/10/2017	Default					12	10:55:43	00:00:05	00:00:00	00:00:00	00:00:05

The C.A.T Scans Overview screen has 4 different sections:

**Commands**

**Header**

**Summary**

**Overview table**




**Commands** (arrow pointing to CSV and PDF download buttons)

**Header** (arrow pointing to the summary bar)

**Summary** (arrow pointing to the map area)

**Overview table** (arrow pointing to the detailed scan table)

## Commands

Command	Action
	Return to previous screen
	Export Data as CSV file
	Generate a PDF report for a specific Survey

## Header

Date:	02/10/2017	C.A.T Operator:	martin barry	C.A.T SN:	10/C4EN03-2131	Area:	Bristol	Depot:	Western Drive
-------	------------	-----------------	--------------	-----------	----------------	-------	---------	--------	---------------


The header section identifies the date shown, the locator's serial number, the C.A.T operator and his supervisor (if applicable), area and depot (Professional and Enterprise only)

## Summary

The summary section is divided into 3 different areas; these are (from left to right): Survey, Scan and Map. The map links the survey and/or scan under observation to a specific location.

**Survey: 2**

Genny	00:06:29	<span style="color: green;">100%</span>
Power	00:03:09	<span style="color: purple;">100%</span>
Radio	00:01:28	<span style="color: blue;">12%</span>
Avoidance	00:00:46	<span style="color: red;">4%</span>
Total	00:11:52	
Max Gain	100	
Min Gain	0	
Swing Warnings	9	
GPS	Yes	




**Survey**

**Scan: 15**

Genny	00:00:00	<span style="color: green;">100%</span>
Power	00:00:00	<span style="color: purple;">100%</span>
Radio	00:00:28	<span style="color: blue;">100%</span>
Avoidance	00:00:00	<span style="color: red;">0%</span>
Total	00:00:29	
Max Gain	100	
Min Gain	100	
Swing Warnings	0	
GPS	Yes	

**Scan**



**Map**

[Reset To Survey View](#)

[Reset To Day View](#)

[Centre](#)

[↑](#) [↓](#)

**NOTE:** The map function is only available for gC.A.T4 locators if they had a valid GPS position at the time of the scan and/or paired to a mobile device running C.A.T Manager mobile app, where the Location mode is enabled.

### 4.3.1. Overview Table

Date	Client	ID	Start	End	Power	Radio	Avoidance	Total	Max Gain	Min Gain	Swing Warnings	GPS	Survey
03/05/2016	Default	5	09:00:01	00:00:11	00:00:11	00:00:00	00:00:00	00:00:07	00:00:00	88.3	72.6	90	1
03/05/2016	Default	6	09:00:28	00:00:20	00:00:20	00:00:00	00:00:00	00:00:09	00:00:00	98.8	71.9	95	1
03/05/2016	Default	7	09:00:52	00:00:16	00:00:16	00:00:00	00:00:00	00:00:00	00:00:00	100	94	93	1
03/05/2016	Default	8	09:01:16	00:00:19	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	100	100	94	1
03/05/2016	Default	9	09:01:41	00:00:12	00:00:12	00:00:00	00:00:12	00:00:00	00:00:00	100	91.9	91	1
03/05/2016	Default	10	09:02:03	00:00:10	00:00:10	00:00:00	00:00:00	00:00:10	00:00:02	100	97.7	90	1
03/05/2016	Default	11	11:47:17	00:00:06	00:00:00	00:00:00	00:00:00	00:00:00	00:00:01	87.1	87.1	0	2
03/05/2016	Default	12	11:47:28	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	87.1	87.1	0	2
03/05/2016	Default	13	11:47:38	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	87.1	87.1	0	2
03/05/2016	Default	14	11:48:03	00:00:04	00:00:04	00:00:00	00:00:00	00:00:03	00:00:00	86.9	86.9	75	2

**Survey 1** (rows 1-10)





**Survey 2** (rows 11-14)

The overview table provides a detailed view of all surveys conducted and distinct scans associated to them.













Surveys are colour banded, alternating blue and grey. All the scans associated to a specific survey are displayed with the same colour.






This section provides the following commands, used to edit surveys:

Command	Action
	See Previous day (active if available)
	See Next day (active if available)
	Cancel edit operation
	Merge Scans

The overview table provides the following information:

Icon	Description
	<b>Date</b>
	<b>Contract</b> Contract associated to the survey
	<b>Scan number</b>
	<b>Start time</b>
	<b>Scan duration*</b>
	<b>Genny duration*</b> How long the C.A.T was used in Genny mode in that day or survey
	<b>Power duration*</b> How long the C.A.T was used in Power mode in that day or survey
	<b>Radio duration*</b> How long the C.A.T was used in Radio mode in that day or survey
	<b>Avoidance duration*</b> How long the C.A.T was used in Avoidabce mode in that day or survey
	<b>Low Frequency Genny signal duration*</b>

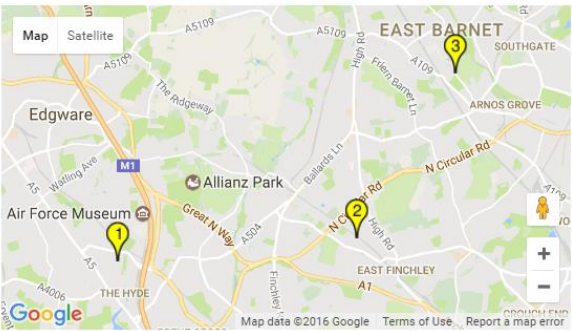


Icon	Description
	How long the C.A.T has detected a low frequency genny signal with a strength greater than 10% of full scale on the display - Avoidance and Genny mode only
	<b>High Frequency Genny signal duration*</b> How long the C.A.T has detected a high frequency genny signal with a strength greater than 10% of full scale on the display - Avoidance and Genny mode only
	<b>Maximum sensitivity gain</b>
	<b>Minimum sensitivity gain</b>
	<b>Scan GPS % duration*</b> Compared to the overall survey duration
	<b>Survey number</b>

\* Measured in hh:mm:ss

### 4.3.2. Using the Scans Overview screen

Date: 03/05/2016    User: Lou White    Cat Serial: 10/C4EN03-630999    Area: Default    Depot: Default




Reset To Survey View



Reset To Day View

Centre

↑

↓



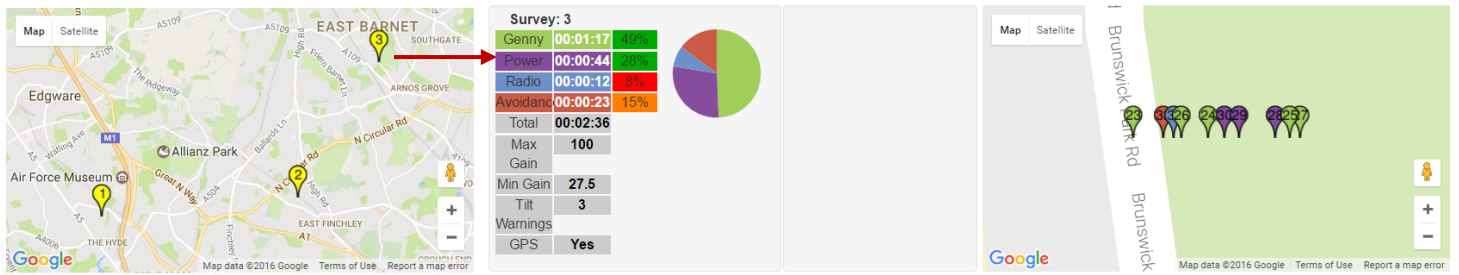
03/05/2016	Default	5	09:00:01	00:00:11	00:00:11	00:00:00	00:00:00	00:00:00	00:00:00	00:00:07	00:00:00	88.3	72.6	90	1
03/05/2016	Default	6	09:00:28	00:00:20	00:00:20	00:00:00	00:00:00	00:00:00	00:00:00	00:00:09	00:00:00	98.8	71.9	95	1
03/05/2016	Default	7	09:00:52	00:00:16	00:00:00	00:00:16	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	94	93	1
03/05/2016	Default	8	09:01:16	00:00:19	00:00:00	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	94	1
03/05/2016	Default	9	09:01:41	00:00:12	00:00:00	00:00:00	00:00:12	00:00:00	00:00:00	00:00:00	00:00:00	100	91.9	91	1
03/05/2016	Default	10	09:02:03	00:00:10	00:00:00	00:00:00	00:00:00	00:00:10	00:00:02	00:00:00	00:00:00	100	97.7	90	1
03/05/2016	Default	11	11:47:17	00:00:06	00:00:00	00:00:00	00:00:00	00:00:06	00:00:00	00:00:01	00:00:00	87.1	87.1	0	2
03/05/2016	Default	12	11:47:28	00:00:02	00:00:00	00:00:00	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	87.1	87.1	0	2
03/05/2016	Default	13	11:47:38	00:00:02	00:00:00	00:00:00	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	87.1	87.1	0	2

When the Scans overview screen is accessed, the Map screen shows all the surveys conducted by the user on that day. The surveys are represented by yellow icons.

All individual scans are colour banded into surveys in the scans table.

#### To use the Scans Overview screen using the map Icons:

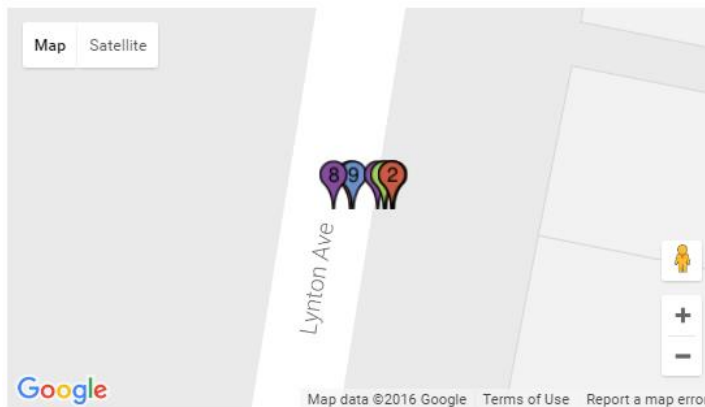
1. Click on any survey's icon to show all the associated scans.



Scans are identified by icons coloured in their predominant mode



2. Use the Google's maps commands to switch from a map to a satellite picture, zoom in and out or to switch to Street View



3. Hover with a mouse on any icons on the map to see information about the scans associated with it

**Survey: 1**

Genny	00:01:17	100%
Power	00:00:35	100%
Radio	00:00:12	0%
Avoidance	00:00:25	17%
Total	00:02:29	
Max Gain	100	
Min Gain	49.5	
Tilt	2	
Warnings		
GPS	Yes	

**Scan: 8**

Genny	00:00:00
Power	00:00:19
Radio	00:00:00
Avoidance	00:00:00
Total	00:00:19
Max Gain	100
Min Gain	100
Tilt Warnings	0
GPS	Yes

Date	Mode	ID	Time	Power	Radio	Avoidance	Max Gain	Min Gain	Tilt	Warnings	GPS				
03/05/2016	Default	1	08:55:52	00:00:05	00:00:00	00:00:00	00:00:00	00:00:00	00:00:05	00:00:00	00:00:01	95	49.5	0	1
03/05/2016	Default	2	08:58:00	00:00:04	00:00:00	00:00:00	00:00:00	00:00:00	00:00:04	00:00:00	00:00:00	100	100	75	1
03/05/2016	Default	3	08:59:00	00:00:06	00:00:06	00:00:00	00:00:00	00:00:00	00:00:00	00:00:05	00:00:00	100	100	83	1
03/05/2016	Default	4	08:59:08	00:00:40	00:00:40	00:00:00	00:00:00	00:00:00	00:00:00	00:00:26	00:00:00	100	73.4	97	1
03/05/2016	Default	5	09:00:01	00:00:11	00:00:11	00:00:00	00:00:00	00:00:00	00:00:00	00:00:07	00:00:00	88.3	72.6	90	1
03/05/2016	Default	6	09:00:28	00:00:20	00:00:20	00:00:00	00:00:00	00:00:00	00:00:00	00:00:09	00:00:00	98.8	71.9	95	1
03/05/2016	Default	7	09:00:52	00:00:16	00:00:00	00:00:16	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	94	93	1
03/05/2016	Default	8	09:01:16	00:00:19	00:00:00	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	94	1
03/05/2016	Default	9	09:01:41	00:00:12	00:00:00	00:00:00	00:00:12	00:00:00	00:00:00	00:00:00	00:00:00	100	91.9	91	1
03/05/2016	Default	10	09:02:03	00:00:10	00:00:00	00:00:00	00:00:00	00:00:10	00:00:00	00:00:02	00:00:00	100	97.7	90	1
03/05/2016	Default	11	11:47:17	00:00:06	00:00:00	00:00:00	00:00:00	00:00:00	00:00:06	00:00:00	00:00:01	87.1	87.1	0	1

The correspondent row in the scans table is highlighted in yellow

- Left-click on any icons on the map to lock the scans on the map and overview table (row is highlighted in orange)

**Survey: 2**

Genny	00:00:54	100%
Power	00:00:13	14%
Radio	00:00:08	8%
Avoidance	00:00:21	17%
Total	00:01:36	
Max Gain	100	
Min Gain	37.6	
Tilt	0	
Warnings		
GPS	Yes	

**Scan: 14**

Genny	00:00:04
Power	00:00:00
Radio	00:00:00
Avoidance	00:00:00
Total	00:00:04
Max Gain	86.9
Min Gain	86.9
Tilt Warnings	0
GPS	Yes

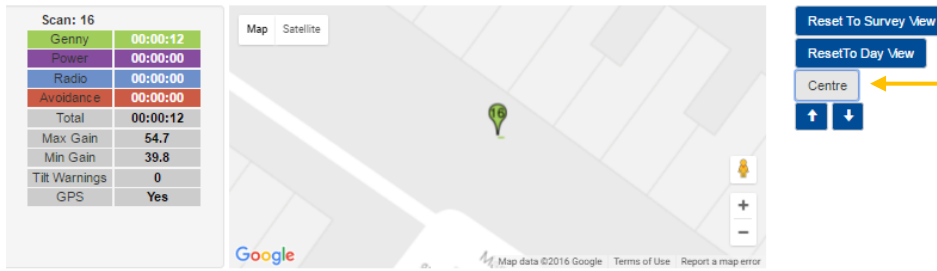
Date	Mode	ID	Time	Power	Radio	Avoidance	Max Gain	Min Gain	Tilt	Warnings	GPS				
03/05/2016	Default	14	11:48:03	00:00:04	00:00:04	00:00:00	00:00:00	00:00:00	00:00:00	00:00:03	00:00:00	86.9	86.9	75	2
03/05/2016	Default	15	11:48:09	00:00:20	00:00:20	00:00:00	00:00:00	00:00:00	00:00:00	00:00:18	00:00:00	77.5	37.6	90	2
03/05/2016	Default	16	11:48:38	00:00:12	00:00:12	00:00:00	00:00:00	00:00:00	00:00:00	00:00:07	00:00:00	54.7	39.8	83	2
03/05/2016	Default	17	11:49:00	00:00:18	00:00:18	00:00:00	00:00:00	00:00:00	00:00:00	00:00:12	00:00:00	80.7	54.3	88	2
03/05/2016	Default	18	11:49:21	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	60.2	75	2
03/05/2016	Default	19	11:49:36	00:00:05	00:00:00	00:00:00	00:00:05	00:00:00	00:00:00	00:00:00	00:00:00	100	100	80	2
03/05/2016	Default	20	11:49:52	00:00:08	00:00:00	00:00:00	00:00:00	00:00:08	00:00:00	00:00:00	00:00:00	100	95.5	87	2

- Use the **UP** and **DOWN** buttons to scroll through the icons

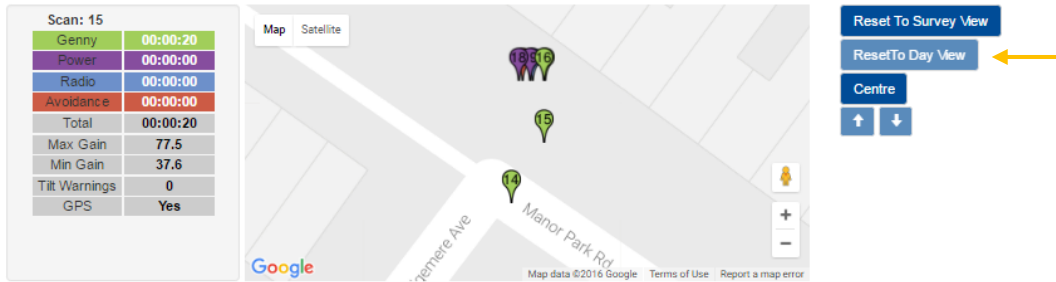
**Scan: 15**

Genny	00:00:20
Power	00:00:00
Radio	00:00:00
Avoidance	00:00:00
Total	00:00:20
Max Gain	77.5
Min Gain	37.6
Tilt Warnings	0
GPS	Yes

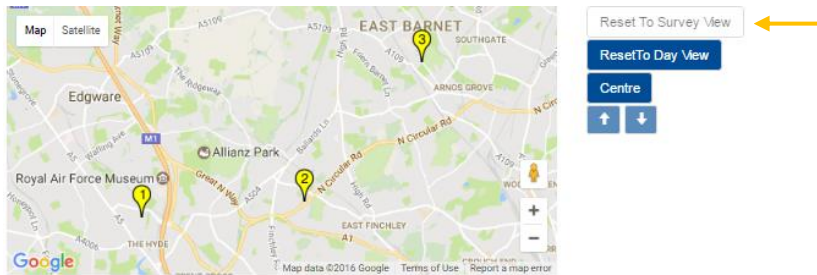
- Press on the **Centre** button to move the icon to the centre of the map



7. Press on the **Reset to Day View survey** to zoom out and show all the icons associated with the survey



8. Press on the **Reset to Surveys View** to zoom out and show all the surveys



## To navigate the Scans Overview screen using the scans table:

1. Hover your mouse on the table area
  - The survey underneath is selected and changes colour to light blue (Survey 2 in the example below)

Survey: 2	
Genny	00:00:54
Power	00:00:13
Radio	00:00:08
Avoidance	00:00:21
Total	00:01:36
Max Gain	100
Min Gain	37.6
Tilt Warnings	0
GPS	Yes

Date	Time	Power	Radio	Avoidance	Total	Max Gain	Min Gain	Tilt Warnings	GPS
03/05/2016	09:00:25	00:00:20	00:00:00	00:00:00	00:00:20	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	09:00:52	00:00:16	00:00:00	00:00:00	00:00:16	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	09:01:16	00:00:19	00:00:00	00:00:00	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	09:01:41	00:00:12	00:00:00	00:00:00	00:00:12	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	09:02:03	00:00:10	00:00:00	00:00:00	00:00:10	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:47:17	00:00:06	00:00:00	00:00:00	00:00:06	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:47:25	00:00:02	00:00:00	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:47:38	00:00:02	00:00:00	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:48:03	00:00:04	00:00:00	00:00:00	00:00:04	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:48:09	00:00:20	00:00:00	00:00:00	00:00:20	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:48:36	00:00:12	00:00:12	00:00:00	00:00:24	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:48:00	00:00:18	00:00:18	00:00:00	00:00:36	00:00:00	00:00:00	00:00:00	00:00:00
03/05/2016	11:49:21	00:00:06	00:00:00	00:00:00	00:00:06	00:00:00	00:00:00	00:00:00	00:00:00

- The Survey summary displays a detailed overview of the survey highlighted



- The map shows the area where the survey took place. This is represented by a yellow icon, positioned in the average point of all the scans locations

2. Click once on any scan (row) to select it:

- The selected scan will turn yellow
- The Scan summary will display a detailed overview of the survey
- The map will show the average location point as an icon, showing the scan number and route followed, coloured as for the predominant C.A.T mode (Genny, Power, Radio or Avoidance) for that scan operation.

The screenshot displays the software interface with the following components:

- Survey Summary (Survey: 2):**

Genny	00:00:54	
Power	00:00:13	14%
Radio	00:00:08	7%
Avoidance	00:00:21	19%
Total	00:01:36	
Max Gain	100	
Min Gain	37.6	
Tilt Warnings	0	
GPS	Yes	
- Scan Summary (Scan: 15):**

Genny	00:00:20	
Power	00:00:00	
Radio	00:00:00	
Avoidance	00:00:00	
Total	00:00:20	
Max Gain	77.5	
Min Gain	37.6	
Tilt Warnings	0	
GPS	Yes	
- Map:** Shows a map of East Barnet with a yellow icon representing the average location point of scan 15. The map includes controls for 'Reset To Survey View', 'Reset To Day View', 'Centre', and zoom in/out buttons.
- Scan List Table:**

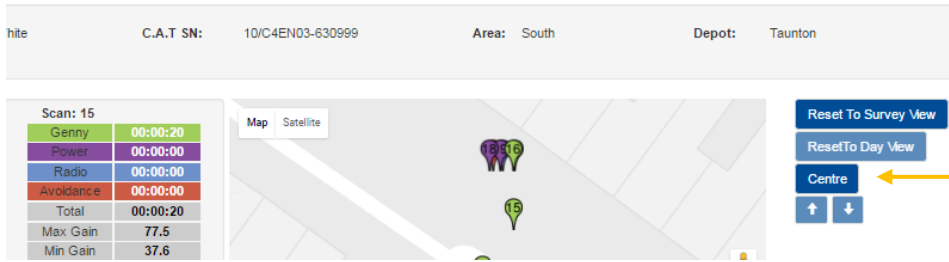
Time	Mode	Scan #	Start	End	Power	Radio	Avoidance	Max Gain	Min Gain	Tilt Warnings	GPS		
03/05/2016	Default	5	09:00:28	00:00:20	00:00:00	00:00:00	00:00:00	00:00:09	00:00:00	98.8	71.9	95	1
03/05/2016	Default	7	09:00:52	00:00:16	00:00:00	00:00:16	00:00:00	00:00:00	00:00:00	100	94	93	1
03/05/2016	Default	8	09:01:16	00:00:19	00:00:00	00:00:19	00:00:00	00:00:00	00:00:00	100	100	94	1
03/05/2016	Default	9	09:01:41	00:00:12	00:00:00	00:00:00	00:00:12	00:00:00	00:00:00	100	91.9	91	1
03/05/2016	Default	10	09:02:03	00:00:10	00:00:00	00:00:00	00:00:10	00:00:00	00:00:02	100	97.7	90	1
03/05/2016	Default	11	11:47:17	00:00:06	00:00:00	00:00:00	00:00:06	00:00:00	00:00:01	87.1	87.1	0	1
03/05/2016	Default	12	11:47:28	00:00:02	00:00:00	00:00:00	00:00:00	00:00:02	00:00:00	87.1	87.1	0	2
03/05/2016	Default	13	11:47:38	00:00:02	00:00:00	00:00:00	00:00:00	00:00:02	00:00:00	87.1	87.1	0	2
03/05/2016	Default	14	11:48:03	00:00:04	00:00:04	00:00:00	00:00:00	00:00:00	00:00:03	86.9	86.9	75	2
03/05/2016	Default	15	11:48:09	00:00:20	00:00:20	00:00:00	00:00:00	00:00:18	00:00:00	77.5	37.6	90	2
03/05/2016	Default	16	11:48:38	00:00:12	00:00:12	00:00:00	00:00:00	00:00:00	00:00:07	54.7	39.8	83	2
03/05/2016	Default	17	11:49:00	00:00:18	00:00:18	00:00:00	00:00:00	00:00:00	00:00:12	80.7	54.3	88	2
03/05/2016	Default	18	11:49:21	00:00:08	00:00:00	00:00:08	00:00:00	00:00:00	00:00:00	100	60.2	75	2

3. Click again on the row to lock the scan and icon:

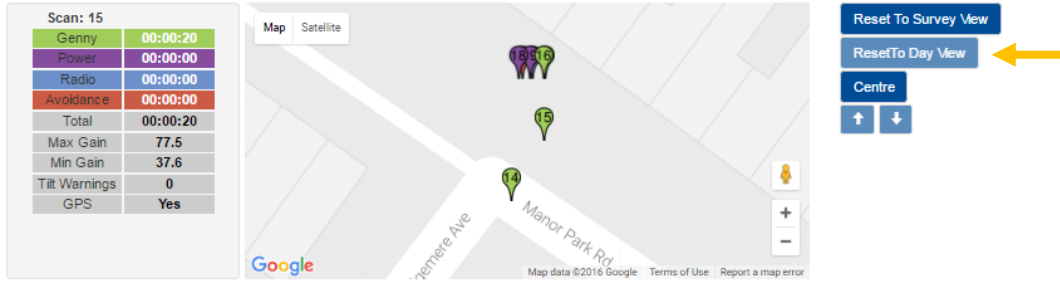
- The selected scan will turn orange

This screenshot is identical to the previous one, but the row for scan 15 (at 11:48:09) is highlighted in orange, indicating it is locked. The map icon also remains in the same position.

4. Press on the **Centre** button to move the icon to the centre of the map



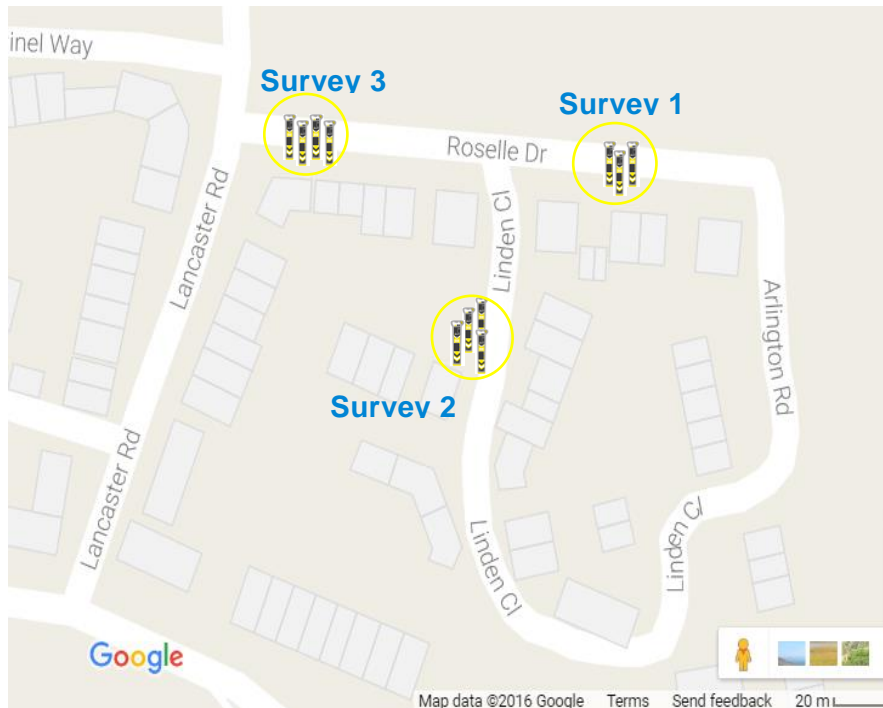
5. Unlock the scan by clicking again on the scan highlighted in orange or by pressing on the **Reset to Day View survey**.



## 4.4 Managing surveys

C.A.Ts and Gennys are used to survey an area prior and during an excavation. Depending on the complexity of the area surveyed it is normal for C.A.T operators to perform a large number of scans in different modes.

All the scans performed to survey an area are grouped into a single **Survey**



## 4.4.1. Automatic Survey grouping

The C.A.T Manager Online system automatically groups different scans into **survey** as they are received. The system looks at time difference and distance between subsequent scans. Scans which are within 30 minutes or 30m apart are considered part of the same survey.

## 4.4.2. Manual Survey creation

C.A.T field operators can start and stop a survey manually to ensure that only the correct scans are part of the survey being conducted and which will be monitored and analysed by their supervisor.

For example if before starting a survey, the gC.A.T4 is tested in different modes and with its Genny in the same area in which the survey will be conducted, these “test” scans may be considered as a part of the same survey by the C.A.T Manager Online system.

Refer to the C.A.T Manager Online – Mobile operation manual for further information on how to start and stop a survey using a Android or iOS mobile device.

## 4.4.3. Editing surveys

You can edit a survey by using the overview table:

1. Click on the previous or next day buttons to show scans from these days



**NOTE: The calendar buttons will only work if there are scans data on a contiguous day.**

2. Select all the scans on the table which belong to the same survey by pressing the **CTRL** key on the keyboard and left-click with the mouse
3. Press the **Merge scans** button to group all the scans in a new survey or **Cancel**

**NOTE: The survey numbers are automatically changed to take into account the changes applied**

## Previous and next day

## Cancel or Merge scans

Date	Activity	ID	Time	Power	Radio	Avoidance	Total	Max Gain	Min Gain	Tilt	Warnings	GPS	Count		
18/11/2016	Fix and repair	6	15:32:42	00:00:05	00:00:00	00:00:05	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
18/11/2016	Fix and repair	7	15:33:20	00:00:08	00:00:00	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
18/11/2016	Fix and repair	8	22:53:12	00:00:09	00:00:00	00:00:09	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	79.5	0	2
19/11/2016	Fix and repair	1	12:16:57	00:00:01	00:00:00	00:00:01	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	1
19/11/2016	Fix and repair	2	16:27:31	00:00:13	00:00:00	00:00:13	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
19/11/2016	Fix and repair	3	16:27:52	00:00:02	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
19/11/2016	Fix and repair	4	16:28:21	00:00:10	00:00:00	00:00:10	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	98.7	98.7	0	2
19/11/2016	Fix and repair	5	16:28:22	00:00:08	00:00:00	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	99.5	99.4	100	2
19/11/2016	Fix and repair	6	16:29:25	00:00:03	00:00:00	00:00:03	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	99.4	99.4	33	2
19/11/2016	Fix and repair	7	18:32:15	00:00:13	00:00:04	00:00:05	00:00:00	00:00:04	00:00:01	00:00:00	00:00:00	100	79.7	0	2
19/11/2016	Fix and repair	8	18:40:23	00:00:08	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	79.7	79.7	0	2
19/11/2016	Fix and repair	9	18:41:31	00:00:19	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	79.7	0	94	2
19/11/2016	Fix and repair	10	18:42:04	00:00:07	00:00:07	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	5.8	4.9	85	2

Date	Activity	ID	Time	Power	Radio	Avoidance	Total	Max Gain	Min Gain	Tilt	Warnings	GPS	Count		
18/11/2016	Fix and repair	5	15:32:11	00:00:02	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
18/11/2016	Fix and repair	6	15:32:42	00:00:05	00:00:00	00:00:05	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
18/11/2016	Fix and repair	7	15:33:20	00:00:08	00:00:00	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
18/11/2016	Fix and repair	8	22:53:12	00:00:09	00:00:00	00:00:09	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	79.5	0	2
19/11/2016	Fix and repair	1	12:16:57	00:00:01	00:00:00	00:00:01	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	1
19/11/2016	Fix and repair	2	16:27:31	00:00:13	00:00:00	00:00:13	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
19/11/2016	Fix and repair	3	16:27:52	00:00:02	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	0	2
19/11/2016	Fix and repair	4	16:28:21	00:00:10	00:00:00	00:00:10	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	98.7	98.7	0	2
19/11/2016	Fix and repair	5	16:28:22	00:00:08	00:00:00	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	99.5	99.4	100	2
19/11/2016	Fix and repair	6	16:29:25	00:00:03	00:00:00	00:00:03	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	99.4	99.4	33	2
19/11/2016	Fix and repair	7	18:32:15	00:00:13	00:00:04	00:00:05	00:00:00	00:00:04	00:00:01	00:00:00	00:00:00	100	79.7	0	3
19/11/2016	Fix and repair	8	18:40:23	00:00:08	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	79.7	79.7	0	3
19/11/2016	Fix and repair	9	18:41:31	00:00:19	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	79.7	0	94	3
19/11/2016	Fix and repair	9	18:41:31	00:00:19	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	79.7	0	94	3

## 4.5 Creating a survey report

**Date:** 03/05/2016    **C.A.T:** Lou White    **C.A.T SN:** 10/C4EN03-630999    **Area:** South    **Depot:** Taunton  
**Operator:**

**Survey: 2**  
 Genny: 00:00:54 (50%)  
 Power: 00:00:13 (13%)  
 Radio: 00:00:08 (8%)  
 Avoidance: 00:00:27 (59%)  
 Total: 00:01:42  
 Max Gain: 100  
 Min Gain: 37.6  
 Tilt: 0  
 Warnings:   
 GPS: Yes

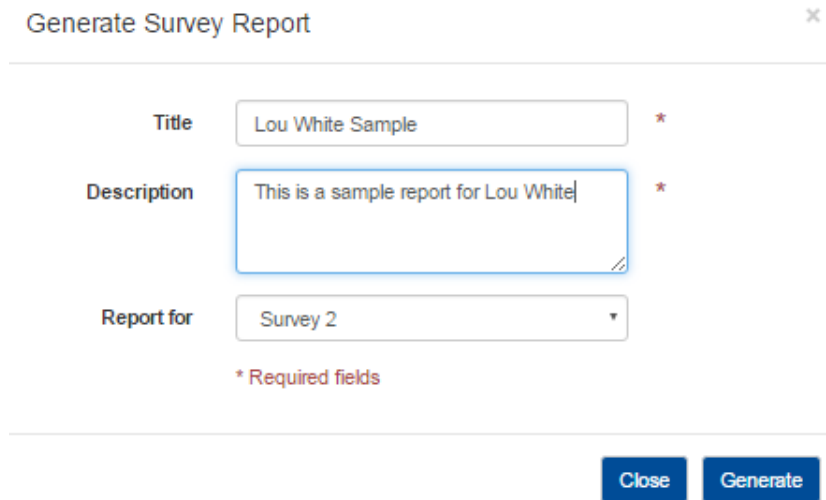
**Map:** East Barnet area with location marker.

Date	Activity	ID	Time	Power	Radio	Avoidance	Total	Max Gain	Min Gain	Tilt	Warnings	GPS	Count		
03/05/2016	Default	7	09:00:52	00:00:16	00:00:00	00:00:16	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	94	93	1
03/05/2016	Default	8	09:01:16	00:00:19	00:00:00	00:00:19	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	100	94	1
03/05/2016	Default	9	09:01:41	00:00:12	00:00:00	00:00:12	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	91.9	91	1
03/05/2016	Default	10	09:02:03	00:00:10	00:00:00	00:00:10	00:00:00	00:00:00	00:00:02	00:00:00	00:00:00	100	97.7	90	1
03/05/2016	Default	11	11:47:17	00:00:06	00:00:00	00:00:06	00:00:00	00:00:00	00:00:01	00:00:00	00:00:00	87.1	87.1	0	2
03/05/2016	Default	12	11:47:28	00:00:02	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	87.1	87.1	0	2
03/05/2016	Default	13	11:47:38	00:00:02	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	87.1	87.1	0	2
03/05/2016	Default	14	11:48:03	00:00:04	00:00:04	00:00:00	00:00:00	00:00:00	00:00:03	00:00:00	00:00:00	86.9	86.9	75	2
03/05/2016	Default	15	11:48:09	00:00:20	00:00:20	00:00:00	00:00:00	00:00:00	00:00:18	00:00:00	00:00:00	77.5	37.6	90	2
03/05/2016	Default	16	11:48:38	00:00:12	00:00:12	00:00:00	00:00:00	00:00:00	00:00:07	00:00:00	00:00:00	54.7	39.8	83	2
03/05/2016	Default	17	11:49:00	00:00:18	00:00:18	00:00:00	00:00:00	00:00:00	00:00:12	00:00:00	00:00:00	80.7	54.3	88	2
03/05/2016	Default	18	11:49:21	00:00:08	00:00:00	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	60.2	75	2



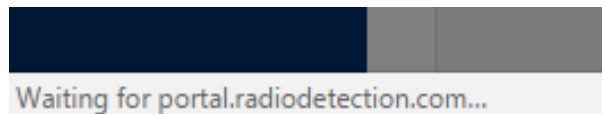
Once you have reviewed all the scans and the surveys for a specific day you may want to download a report for a specific survey:

1. Press the PDF button. The Report generation window will appear

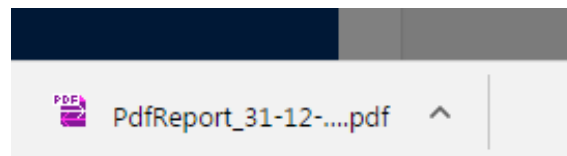


2. Enter a **Title** and a **Description**
3. Select a **Survey**
4. Press **Generate**.

Note the status message at the bottom right corner of your web browser



5. Depending on your security settings the report will be automatically downloaded



6. Press **Close** to exit the Report generation window

### 4.5.1. Survey report structure

The PDF report can be found in the default download folder. The default name is

**pdfReport\_dd-mm-yy hh-mm-ss.pdf**

where dd-mm-yy hh-mm-ss are the date and time of when the report was generated.

**NOTE: You need a PDF viewer to open and review the report.**

Depending on the size and presence of location data the report may comprise of more than one sections:

The first section is the summary overview for the specific survey

## Lou White Sample

This is a sample report for Lou White

CAT serial number: 10/C4EN03-630999  
Operator: Lou White

Report Date: 31/12/2016  
Created by: Joe Smith

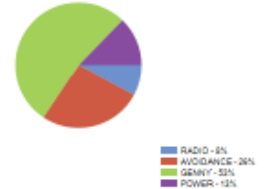
Company: Joe Smith LTD, 44 Low Street, Cheltenham, GL2 4TH, UNITED KINGDOM

Account: Default

Contract: Default

Genny Signal Detection	
Radio	0000:06
Avoidance	0000:27
Genny	0000:54
Power	0000:13
Total Duration	0001:42

Number of Scans	11
Average Scan	0000:09
Longest Scan	0000:20
Swing Warning	0
Number of Scans with GPS	8
GPS Available [hh:mm:ss]	
GPS Available %	84

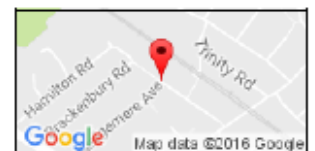


Date	Scan	Survey	Start time	Duration	Swing Warnings	Radio	Avoidance	Genny	Power	Genny HF	Genny LF	Max Gain	Min Gain	GPS %
03/05/2016	11	2	11:47:17	00:00:06	0	00:00:00	00:00:06	00:00:00	00:00:00	00:00:01	00:00:00	87.1	87.1	0
03/05/2016	12	2	11:47:28	00:00:02	0	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	87.1	87.1	0
03/05/2016	13	2	11:47:38	00:00:02	0	00:00:00	00:00:02	00:00:00	00:00:00	00:00:00	00:00:00	87.1	87.1	0
03/05/2016	14	2	11:48:03	00:00:04	0	00:00:00	00:00:00	00:00:04	00:00:00	00:00:00	00:00:03	86.9	86.9	75
03/05/2016	15	2	11:48:09	00:00:20	0	00:00:00	00:00:00	00:00:20	00:00:00	00:00:00	00:00:18	77.5	37.6	90
03/05/2016	16	2	11:48:38	00:00:12	0	00:00:00	00:00:00	00:00:12	00:00:00	00:00:00	00:00:07	54.7	39.8	83
03/05/2016	17	2	11:49:00	00:00:18	0	00:00:00	00:00:00	00:00:18	00:00:00	00:00:00	00:00:12	80.7	54.3	88
03/05/2016	18	2	11:49:21	00:00:08	0	00:00:00	00:00:00	00:00:00	00:00:08	00:00:00	00:00:00	100	60.2	75
03/05/2016	19	2	11:49:36	00:00:05	0	00:00:00	00:00:00	00:00:00	00:00:05	00:00:00	00:00:00	100	100	80
03/05/2016	20	2	11:49:52	00:00:08	0	00:00:08	00:00:00	00:00:00	00:00:00	00:00:00	00:00:00	100	95.5	87
03/05/2016	21	2	11:50:07	00:00:17	0	00:00:00	00:00:17	00:00:00	00:00:00	00:00:00	00:00:02	100	86	94

The next section is available only for scans with location (GPS) coordinates, and provides a more detailed overview of the single scan alongside a map showing the scan location. Latitude and Longitude are also provided

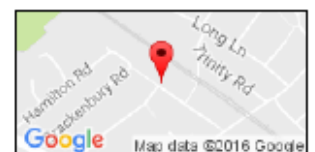
Date: 03/05/2016  
Scan: 14  
Start: 11:48:03  
Duration: 00:00:04  
Page\_no [Lat,Lon]: 51.5932, -0.185907950252525

Mode:	Gain:
Radio: 00:00:00	Variation: 86.9 to 86.9
Avoidance: 00:00:00	
Genny: 00:00:04	
Power: 00:00:00	



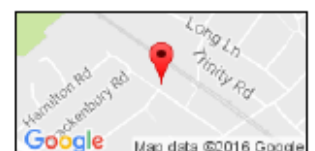
Date: 03/05/2016  
Scan: 15  
Start: 11:48:09  
Duration: 00:00:20  
Page\_no [Lat,Lon]: 51.59325, -0.185907950252525

Mode:	Gain:
Radio: 00:00:00	Variation: 37.6 to 77.5
Avoidance: 00:00:00	
Genny: 00:00:20	
Power: 00:00:00	



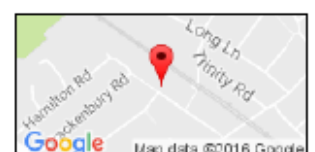
Date: 03/05/2016  
Scan: 16  
Start: 11:48:38  
Duration: 00:00:12  
Page\_no [Lat,Lon]: 51.5933, -0.185907950252525

Mode:	Gain:
Radio: 00:00:00	Variation: 39.8 to 54.7
Avoidance: 00:00:00	
Genny: 00:00:12	
Power: 00:00:00	



Date: 03/05/2016  
Scan: 17  
Start: 11:49:00  
Duration: 00:00:18  
Page\_no [Lat,Lon]: 51.5933, -0.185907950252525

Mode:	Gain:
Radio: 00:00:00	Variation: 54.3 to 80.7
Avoidance: 00:00:00	
Genny: 00:00:18	
Power: 00:00:00	



## 4.5.2. Exporting scans data

You can export the data for all the scans you are displaying in the Scans overview screen in a Comma Separated Value (CSV) format:

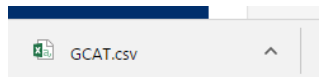


1. Click on the download **CSV** button

Note the status message at the bottom right corner of your web browser



2. Depending on your security settings the report will be automatically downloaded



The CSV data file can be found in the default download folder. The default name is **gCAT.CSV**

## 4.5.3. CSV Data Structure

The CSV data file is the same as the for data file generated by C.A.T Manager for PC.

1	Serial Num	Version	Log Refer	Plant Num	Free Text	Date	Time	RTC Updat	Depth Me	Signal Str	Power	Radio	Genny 33	Genny HF	Sensitivity	Mode	Depth Mo	Warnings	Swing Wa	Strike Ale	Batter
2	10/C4EN03-1781					#####	08:41:09		METRIC	0	0	0	0	0	79.4872	GENNY	LINE	ENABLED	NO	NO	GOOD
3	10/C4EN03-1781					#####	08:41:10		METRIC	0.536434	0	0	0.261902	0.274533	79.4872	GENNY	LINE	ENABLED	NO	NO	GOOD
4	10/C4EN03-1781					#####	08:41:11		METRIC	0.335359	0	0	0.238319	0.097039	79.4872	GENNY	LINE	ENABLED	NO	NO	GOOD
5	10/C4EN03-1781					#####	08:41:12		METRIC	0.721821	0	0	0.511572	0.210249	82.7416	GENNY	LINE	ENABLED	NO	NO	GOOD
6	10/C4EN03-1781					#####	08:41:13		METRIC	0	0	0	0	0	90.5325	POWER	LINE	ENABLED	NO	NO	GOOD
7	10/C4EN03-1781					#####	08:41:14		METRIC	8.78421	8.78421	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
8	10/C4EN03-1781					#####	08:41:15		METRIC	27.3915	27.3915	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
9	10/C4EN03-1781					#####	08:41:16		METRIC	32.9258	32.9258	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
10	10/C4EN03-1781					#####	08:41:17		METRIC	12.6171	12.6171	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
11	10/C4EN03-1781					#####	08:41:18		METRIC	50.9297	50.9297	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
12	10/C4EN03-1781					#####	08:41:22		METRIC	10.666	10.666	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
13	10/C4EN03-1781					#####	08:41:23		METRIC	2.72458	2.72458	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
14	10/C4EN03-1781					#####	08:41:24		METRIC	14.688	14.688	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
15	10/C4EN03-1781					#####	08:41:25		METRIC	28.0063	28.0063	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
16	10/C4EN03-1781					#####	08:41:26		METRIC	9.90673	9.90673	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
17	10/C4EN03-1781					#####	08:41:27		METRIC	28.931	28.931	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
18	10/C4EN03-1781					#####	08:41:28		METRIC	34.756	34.756	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
19	10/C4EN03-1781					#####	08:41:29		METRIC	0.085579	0.085579	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
20	10/C4EN03-1781					#####	08:41:30		METRIC	0.000209	0.000209	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
21	10/C4EN03-1781					#####	08:41:31		METRIC	0.002606	0.002606	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
22	10/C4EN03-1781					#####	08:41:32		METRIC	6.42E-06	6.42E-06	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
23	10/C4EN03-1781					#####	08:41:33		METRIC	1.56E-08	1.56E-08	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
24	10/C4EN03-1781					#####	08:41:34		METRIC	1.8178	1.8178	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
25	10/C4EN03-1781					#####	08:41:35		METRIC	0.156727	0.156727	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
26	10/C4EN03-1781					#####	08:41:36		METRIC	0.000386	0.000386	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
27	10/C4EN03-1781					#####	08:41:37		METRIC	0.919292	0.919292	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD
28	10/C4EN03-1781					#####	08:41:38		METRIC	1.5256	1.5256	0	0	0	100	POWER	LINE	ENABLED	NO	NO	GOOD

The table below gives an explanation of the available fields.

Field	Field explanation	Notes
<b>Serial Number</b>	Unit serial number	
<b>Version</b>	Not Used	Schema version – Reserved
<b>Log Reference</b>	Not Used	Log reference produced by C.A.T Manager for PC
<b>Plant Number</b>	16 free characters	User editable - requires C.A.T Manager
<b>Free Text</b>	70 free characters	User editable - requires C.A.T Manager
<b>Date</b>	Date(dd-mm-yyyy)	gC.A.T4 time
<b>Time</b>	Time (hh-mm-ss)	gC.A.T4 time
<b>RTC Updated</b>	Indicates if the RTC has been updated using a GPS source	GPS models only
<b>Depth Measured</b>	Metric / Imperial	User configured Depth Units - requires C.A.T Manager + models only
<b>Signal Strength</b>	Bargraph %	
<b>Power</b>	Power signal received as % of scale	
<b>Radio</b>	Radio signal received as % of scale	
<b>Genny 33 kHz</b>	Genny 33kHz signal received as % of scale	Presence of this signal indicates that a Genny was used
<b>Genny HF</b>	Genny HF signal received as % of scale	Absence of this <b>may</b> indicate that the Genny was used only in induction mode and not in direct or clamp mode
<b>Sensitivity Control</b>	Sensitivity (Gain) control as % of scale	
<b>Mode</b>	Mode in use	Power, Genny, Radio and Avoidance, Unit OFF (Used to indicated the GPS Lock mode, if a valid GPS has been acquired), Hard OFF
<b>Depth Mode</b>	Line / Sonde	Indicate type of depth measurement
<b>Warnings Disabled</b>	Enabled / Disabled	Indicates current status of Warnings (Strike Alert and Swing). They momentarily de-activated by the user in the field.
<b>Swing Warning</b>	Yes / No / Disabled	Yes indicates that the C.A.T reported a Swing Warning
<b>StrikeAlert Warning</b>	Yes / No /Disabled	Yes indicates that the C.A.T reported a StrikeAlert Warning
<b>Battery Status</b>	Good / Poor / Critical	

Field	Field explanation	Notes
<b>DOP Status</b>	Normal / Protecting	Indicates if the DOP (Dynamic Overload Protection) is active (Protecting) or not (Normal)
<b>Overload Warning</b>	Normal / Overload	Overload indicates that the C.A.T recorded an overvoltage status
<b>Blade Angle</b>	integer scale figure	Angle in the plane of the receiver, passing through the central vertical axis
<b>Paddle Angle</b>	integer scale figure	Angle of the plane perpendicular to the plane of the receiver, passing through the central vertical axis – imagine using the C.A.T as a canoe paddle!
<b>Power Audio Indicator</b>	1 or 0	1 Indicates that the C.A.T is giving audio feedback for a detected Power signal
<b>Radio Audio Indicator</b>	1 or 0	1 Indicates that the C.A.T is giving audio feedback for a detected Radio signal
<b>Genny 33 Audio Indicator</b>	1 or 0	1 Indicates that the C.A.T is giving audio feedback for a detected 33KHz Genny signal
<b>Genny HF Audio Indicator</b>	1 or 0	1 Indicates that the C.A.T is giving audio feedback for a detected HF Genny signal
<b>GPS Date</b>	DD/MM/HHHH or MM/DD/HHHHH	
<b>UTC</b>	HHMMSS.SS	
<b>Horizontal Dilution</b>	GPS Data	
<b>Altitude</b>	In Meters	
<b>Geoid</b>	INVALID/METERS	
<b>DGPS Time</b>	GPS Data	
<b>DGPS ID</b>	GPS Data	
<b>Geoid Units</b>	INVALID/METERS	
<b>Number of Satellites</b>	Number of satellites used	
<b>GPS Fix</b>	NO_GPS_FIX / GPS_FIX / ESTIMATED / DISABLED	
<b>Altitude Units</b>	Invalid or Meters	
<b>Latitude</b>	GPS Data	
<b>Longitude</b>	GPS Data	
<b>Time Reference</b>	System, GPS, Unused	
<b>Heading</b>	GPS Data	Degrees

Field	Field explanation	Notes
Ground Speed	GPS Data	Km/h

**NOTE: Location information is only available for gC.A.T4 locators, if a valid GPS location was recorded**

## 4.6 Upload C.A.T usage data

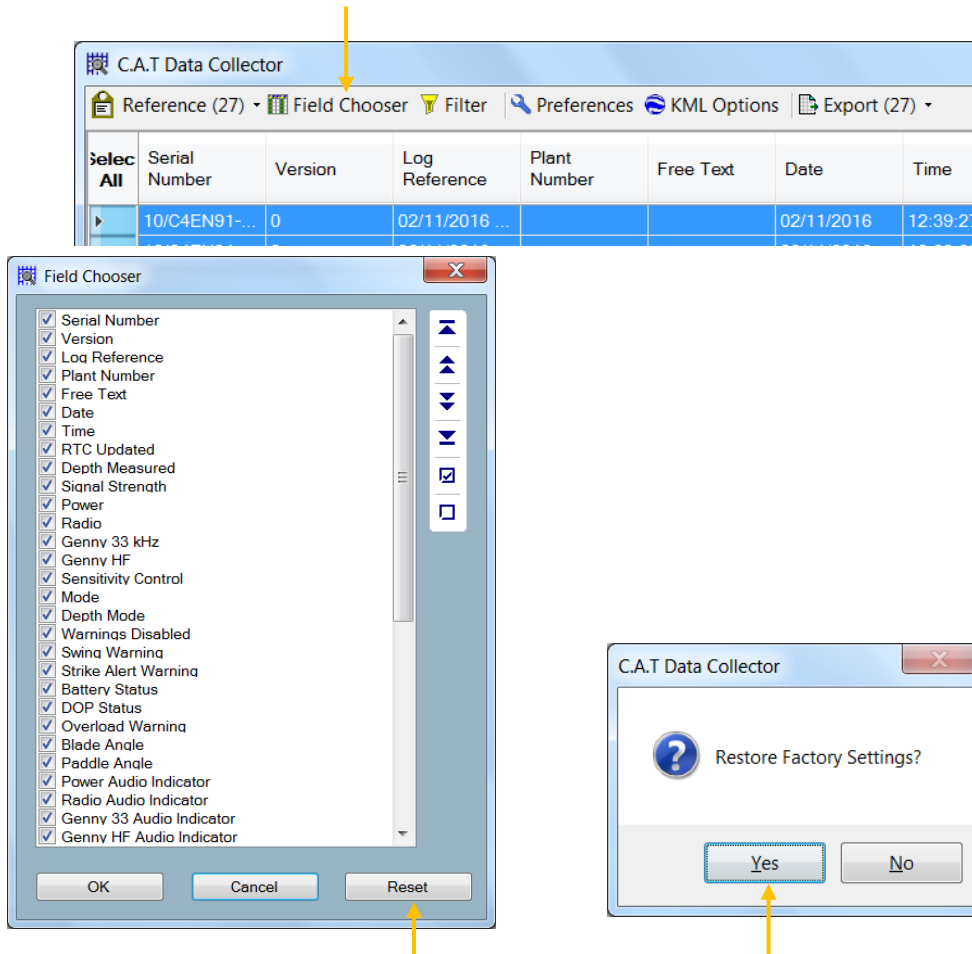
eC.A.T4 and gC.A.T4 locators are equipped with an automatic recording system which stores up to 2 years' worth of usage data in its internal memory. When the locator's memory is full the recording system will start overwriting the older records.

Data stored includes parametric information about the settings of the device (time, mode, gain, etc.), the signals it is receiving and any alerts being generated. gC.A.T4 models will store location information if a GPS signal is available. All parameters are logged once per second when the locator is used.

Users can use **C.A.T Manager for Windows PC** to quickly retrieve usage data and stored them in the C.A.T Manager online for storage or data analysis.

For further information on how to download C.A.T Manager for PC and retrieve data logs from your compatible C.A.T4 visit the software's webpage by clicking this link or by copying and pasting it into your web browser address box: <https://www.radiodetection.com/en-gb/resources/software-downloads/cat-manager>

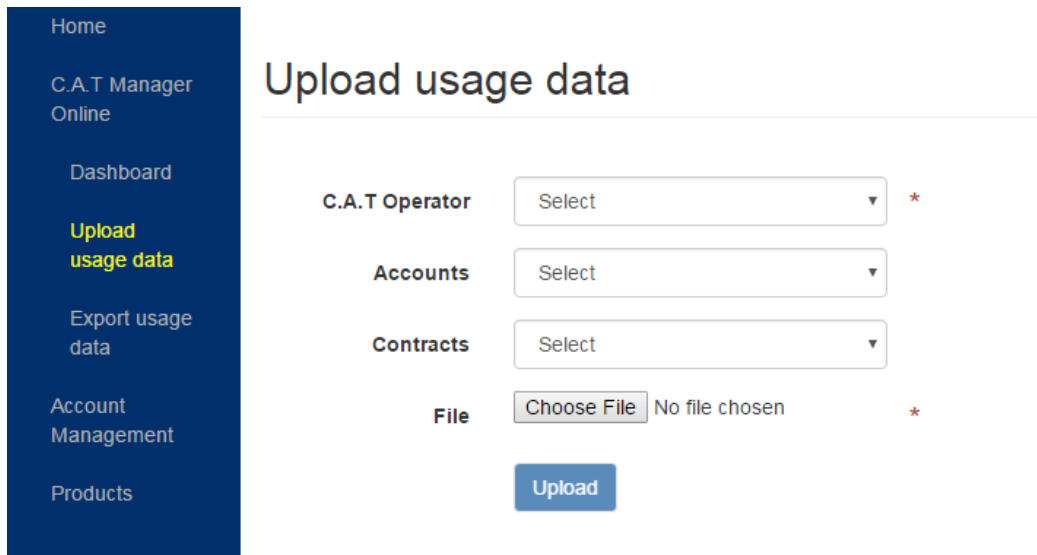
When exporting data from C.A.T Manager for PC, you need to ensure you use the C.A.T Data Collector default field settings. In the C.A.T Manager for PC's **Data Collector** window:



1. Press Field Chooser
2. Click on Reset
3. Restore Factory Settings

To upload eC.A.T4 or gC.A.T4 usage data to the C.A.T Manager Online system:

1. Using C.A.T Manager for PC create a compatible **CSV** file
2. Navigate to In **C.A.T Manager Online** ► **Upload usage data**



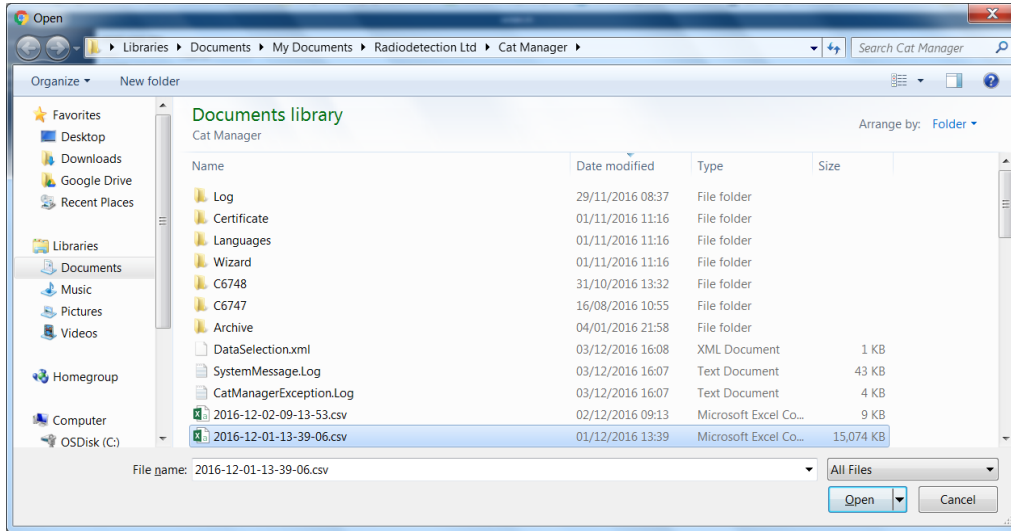
3. If required, chose a **C.A.T operator** from the list of available field operators

**NOTE: Field operator users can only upload data assigned to themselves. Supervisors can choose between their field operators.**

4. Select Accounts and Contracts (if available)

**NOTE: When selecting an account you must also select a contract**

5. Press **Choose File** to browse to the folder containing your CSV data



6. Select the file you wish to upload and press **Open**

## Upload usage data

**C.A.T Operator**  \*

**Accounts**

**Contracts**  \*

**File**  2016-12-01-13-39-06.csv \*

7. Press **Upload** to start the data transfer.

The upload progress is available at the bottom right of the browser screen

Uploading (92%)...

8. Wait for the end of the process for a success or failure message:

✓ The C.A.T Usage data upload was successfully completed

or

✓ The C.A.T Usage data upload was successfully completed with some duplicate logs ignored

or

✗ The selected file is not a valid datalogs file



## 4.7 Export Usage Data

You can use the Export Usage Data screen to download CSV files of your company's C.A.T4 data logs. This is useful if you want to maintain a local backup copy of your users' data or for further in depth analysis.

### Export usage data

---

Please select the filter criteria and select Submit to export the datalogs. If no filter criteria is specified then all datalogs will be exported.

<b>Users</b>	<input type="text" value="Select"/>
<b>Date from</b>	<input type="text"/>
<b>Date to</b>	<input type="text"/>
<b>Contracts</b>	<input type="text" value="Select"/>
<b>Depots</b>	<input type="text" value="Select"/>
<input type="button" value="Export to CSV"/>	

---

To export C.A.T4 data to your PC follow these steps:

1. Select the **C.A.T4 field operator**

**NOTE:** Field operator users can only download their own data. Supervisors can choose between their field operators.

2. Select a date range
3. Select a **Contract**
4. Select a **Depot**
5. Press **Export to CSV**

A CSV will automatically start downloading to your default downloads location.

Visit [www.radiodetection.com](http://www.radiodetection.com)

## Global locations

### Radiodetection (USA)

28 Tower Road, Raymond, Maine 04071, USA

Tel: +1 (207) 655 8525 Toll Free: +1 (877) 247 3797 [rd.sales.us@spx.com](mailto:rd.sales.us@spx.com)

### Pearpoint (USA)

39-740 Garand Lane, Unit B, Palm Desert, CA 92211, USA

Tel: +1 800 688 8094 Tel: +1 760 343 7350 [pearpoint.sales.us@spx.com](mailto:pearpoint.sales.us@spx.com) [www.pearpoint.com](http://www.pearpoint.com)

### Radiodetection (Canada)

344 Edgeley Boulevard, Unit 34, Concord, Ontario L4K 4B7, Canada

Tel: +1 (905) 660 9995 Toll Free: +1 (800) 665 7953 [rd.sales.ca@spx.com](mailto:rd.sales.ca@spx.com)

### Radiodetection Ltd. (UK)

Western Drive, Bristol, BS14 0AF, UK

Tel: +44 (0) 117 976 7776 [rd.sales.uk@spx.com](mailto:rd.sales.uk@spx.com)

### Radiodetection (France)

13 Grande Rue, 76220, Neuf Marché, France

Tel: +33 (0) 2 32 89 93 60 [rd.sales.fr@spx.com](mailto:rd.sales.fr@spx.com)

### Radiodetection (Benelux)

Industriestraat 11, 7041 GD 's-Heerenberg, Netherlands

Tel: +31 (0) 314 66 47 00 [rd.sales.nl@spx.com](mailto:rd.sales.nl@spx.com)

### Radiodetection (Germany)

Groendahlscher Weg 118, 46446 Emmerich am Rhein, Germany

Tel: +49 (0) 28 51 92 37 20 [rd.sales.de@spx.com](mailto:rd.sales.de@spx.com)

### Radiodetection (Asia-Pacific)

Room 708, CC Wu Building, 302-308 Hennessy Road, Wan Chai, Hong Kong SAR, China

Tel: +852 2110 8160 [rd.sales.asiapacific@spx.com](mailto:rd.sales.asiapacific@spx.com)

### Radiodetection (China)

13 Fuqianyi Street, Minghao Building D304, Tianzhu Town, Shunyi District, Beijing 101312, China

Tel: +86 (0) 10 8146 3372 [rd.service.cn@spx.com](mailto:rd.service.cn@spx.com)

### Radiodetection (Australia)

Unit H1, 101 Rookwood Road, Yagoona NSW 2199, Australia

Tel: +61 (0) 2 9707 3222 [rd.sales.au@spx.com](mailto:rd.sales.au@spx.com)