RAMM Traffic Signals

CJN Technologies Ltd

Document Release

To check that you are reading the most recent release of this document, please see our website (http://www.cjntech.co.nz).

Release Date	Change
March 2005	First draft release.

Finding Which Software Version You are Using

When you contact us for help, we'll need to know what version of the RAMM Traffic Signals software you are using.

> **TIP:**   Problems are sometimes fixed simply by upgrading your software to a later Build. To find out which problems are fixed in later Builds than the one you're using, see our website Upgrades page (http://www.cjntech.co.nz/upgrades.htm). If you have any questions about upgrading, feel free to contact us (see "Contacting CJN Technologies Ltd" on page 23).

▶ **To Find the Software Build Number**

Go to the menu at the top of the main Traffic Signals window, then choose **Help > About**. A small window shows details about the software. You'll find the Build Number at the top- in the example below it is *92.0128*.

~i change to 2005

Contents

About This Guide

This guide is specifically intended to help you use and understand the functions of the RAMM Traffic Signals software from CJN Technologies. We've structured it to progress from basic tasks like getting to know RAMM Traffic Signals concepts and setting up to more complex tasks like Maintenance and Mapping, and has been written from the point of view of the RAMM Traffic Signals Contractor (see "About RAMM Traffic Signals" on page 35).

Since RAMM Traffic Signals is both an independent, standalone application as well as part of the RAMM (Road Assessment and Maintenance Management) suite of applications, you may also need to refer the *Using RAMM* Guide. If you're not sure whether you're reading the right guide, see RAMM Guides (on page 21).

This section tells you how to get the most out of using the rest of the document- if you're familiar with RAMM Traffic Signals you can use the links to go directly to the section you need. If you're new to it, we recommend that you read the entire guide.

Understanding RAMM Traffic Signals

Understanding RAMM Traffic Signals (on page 35) is an overview of what the software is, what it does, and other basic concepts like the placement of Traffic Signal assets in an intersection and Traffic Signal components.

Getting Started with RAMM Traffic Signals

Getting Started with RAMM Traffic Signals (on page 41) describes how to generate Intersections, build a Traffic Signals Inventory if necessary, configure the software and get to know the RAMM Traffic Signals workspace. We've included extensive descriptions of RAMM Traffic Signals Toolbar buttons (on page 51). If you need help setting up RAMM Traffic Signals including setting up contracts (see "Setting Up Contract Item Activities" on page 68), this is where you should look.

RAMM Traffic Signals Tasks

RAMM Traffic Signals Tasks (on page 75) covers most of the common tasks you will perform. Use this section if you're in a hurry and you want a quick start to working with the software. This is where you'll read about entering dispatches, printing them for your maintenance crew and completing them. We also have

brief descriptions of other regular tasks such as patrols and claims. All the topics in this section are dealt with in more detail in separate sections - use the links in the descriptions below to go directly to them.

Filters

Though Filters are not exclusive to RAMM Traffic Signals, using filters is crucial to be able to see the information you want quickly instead of having to sort through unnecessary information. This section describes using Filters (on page 97).

Dispatches

This section examines the dispatch entry process in detail and describes each tab of the Dispatch Entry window (on page 108). It also includes a section on Automatic Dispatches (dispatches received by email) and related options (see "Automatic Dispatches" on page 123).

Traffic Signals

This is where you'll find a detailed description of the Traffic Signals window (on page 134), with individual descriptions of each tab. We also look at the distinction between Updating and Replacing Traffic Signal assets (see "Replacing Traffic Signal Assets - ts" on page 150).

Maintenance

Use the Maintenance sections of this guide to work through setting up and configuring Patrols (on page 153), Claims (on page 159), Maintenance Crew Payments and all other Maintenance screens. You can refer to RAMM Traffic Signals Options (see "RAMM Traffic Signals Options" on page 169) for global options governing what you see in RAMM Traffic Signals, like screens for Rating, Electricity Charges and Optional Groups, and to set options for Tolerances.

Reporting

This is where we describe how to analyse your data and generate reports (on page 201). They are either in QuickReport format or the Decision Cube format (see "Decision Cube" on page 203). Both are powerful tools for viewing and analysing your street light data and generating printed or soft-copy reports or charts and/or exporting to popular spreadsheet formats like Excel.

Mapping

Mapping (on page 227) is stand-alone function that can be linked to RAMM or RAMM Traffic Signals, and requires a separate licence - for more information, please contact us (see "Contacting CJN Technologies Ltd" on page 23). Mapping is a key element of Traffic Signals because it allows you to visualise your Traffic

Signals assets and linked Intersections on a map. You also have access to a number of mapping query tools.

Administrative tasks

Status Check (on page 269) and Security (on page 271) functions have their own sections in the guide. The Status Check function is to ensure that all the processes and tables in RAMM Traffic Signals are up to date, and Security sets different access levels for various users of the software.

Getting Help

This section describes the many ways you can get help when you have problems or questions about using our software.

IN THIS CHAPTER

Finding the Answers You Need Quickly

To Find Out How to Use Help

For descriptions of the different types of help we have, formatting conventions and contact information - that's right here in the section you're reading now.

To Find Out How to Work with a Particular Function

Go directly to the section about that particular function - refer to the **Contents**.

Answers Elsewhere

If the task is not listed in the **Contents**, you may find it in another of the RAMM Guides. Check our list of RAMM Guides (on page 21) to make sure you've got the right one.

To Find Out what a Particular Term Means

Read the **Glossary** at the end of this Guide.

To Find where a Particular Term Appears in this Guide

Read the **Index** at the end of this Guide.

Talk to Us

Feel free to contact us (see "Contacting CJN Technologies Ltd" on page 23) directly.

What You Should Already Know

The Microsoft Windows Environment

Before you read this guide, you need to be comfortable working with the Windows environment and its applications. We assume you already know how to use standard Microsoft Windows applications. For more information about using Windows applications, please refer to the Windows user documentation - including the online Help which you can open by clicking on a blank part of your Windows desktop, then pressing the **F1** key at the top of your keyboard.

Security and Passwords

Safeguarding passwords and security information is important. It's best never to write down a password, but if you must, keep it under lock and key.

Data Backup

Back up your data regularly. At the very least, you should back up your database in a location other than the computer you usually work on. Ideally, your entire computer's hard disk will be mirrored in another location such as a server or a network drive. Another cost-effective and secure backup solution is to use the RAMM Hosting Service. For more information, see our website (http://www.cjntech.co.nz).

Conventions We Have Used

This document uses certain ways of formatting text to identify special information.

Formatting Convention	Type of Information
▶ (printed document) or **Brown heading** (online/web)	Step-by-step procedures. Follow these instructions to complete a specific task.
Bold	Items you must select, such as buttons, menu options or items in a list. Menu options are separated by the > symbol. For example: **View > Refresh**.
KEYS	Keys on the keyboard. For example: SHIFT or CTRL.
KEY+KEY	Key combinations where you must hold down one key while you press another. For example: CTRL+P, or ALT+F4.

[Implied] Field Name	Part of a field name not actually shown on the screen.
> Menu Path > **[Variable]**	A menu option that can have several values - usually Asset Types.

Throughout this guide, when we refer to *RAMM* or a related application like *RAMM Asset Valuation, RAMM Assessment, SLIM, Signs,* or *RAMM Traffic Signals* we mean the Windows versions of our software.

Help Yourself

You can help yourself with *integrated help*, your *printed help guide*, or with *web help*.

Many people like to be able to find their own answers. It's often quicker than other ways, and it's usually more satisfying. If you can't find the answer quickly, don't hesitate to ask us for help directly (see "Contacting CJN Technologies Ltd" on page 23).

Using Integrated Help

Press **F1** on your keyboard in any window to access context sensitive help

-OR-

Click on the **Help** menu at the top of the window you're in and choose a relevant topic

-OR-

If you choose any of the **Help > CJN Website** options, your browser will be activated and take you to a page on our website (see *Using Web Help* below).

Using the Printed Help Guide

Printed help is useful especially when you don't have access to a computer.

Using Web Help

Our website (http://www.cjntech.co.nz) has number of resources that you'll find useful. Our Support page (http://www.cjntech.co.nz/support/index.htm) has links to documentation, reference, training and troubleshooting pages. If you're using an installed version of the application you can also download the latest version of the software from our website Upgrades page (http://www.cjntech.co.nz/upgrades.htm).

Help from Other Users

Contacting Other Users

When you have a problem or question about different ways of doing something, or you'd like to share ideas with those who have hands-on experience, you can ask other users. We'll be happy to put you in touch with them - just contact us (see "Contacting CJN Technologies Ltd" on page 23).

CJN Forum

You can also ask questions and participate in ongoing discussions in the CJN Forum (http://forums.cjntech.co.nz).

Help from CJN Technologies

We pride ourselves on our friendly, responsive support. If you need a helping hand, feel free to contact us (see "Contacting CJN Technologies Ltd" on page 23).

RAMM Guides

We publish a number of guides. Here's a brief overview of them and what they cover.

With every major release of RAMM, we publish a brief description of what's new in the release:

- *What's New in RAMM*.

Main functions and basic tasks in RAMM are described in:

- *Using RAMM*.

Advanced functions in RAMM are in a separate guide:

- *Working with RAMM*, including:
    - RAMM Network Manager.
    - Transaction Logging.
    - Surfaces.

- RAMM SQL.

- Bridges.

- Maintenance Activity.

- Pavement Structure.

- Pavement Strength.

- RAMM Security.

We have some other specific RAMM guides:

- *Managing RAMM*.

- *Street Light Inventory Management (SLIM)*.

- *RAMM Asset Valuation*.

- *RAMM Assessment*.

- *RAMM Forward Work Planning*.

- *RAMM Traffic Signals*.

We have two reference guides for advanced database details:

- *Working with Treatment Lengths*.

- *RAMM Database Reference*.

RAMM Database Details

Occasionally you'll need to know where specific details are stored in the RAMM database for more complex tasks. There are a number of ways to find out which tables and columns contain the information you need:

- Read the separate *RAMM Database Reference g*uide.

- For the most up-to-date listing of the details you require, go to the RAMM Manager main menu and choose **Reports > Database Structure**. Choose the tables you wish to view and then **Preview** or **Print** them.

- For a general overview, read *Understanding RAMM Toolbar Controls* in the *Using RAMM* Guide.

- Ask workmates and associates who have used RAMM for longer.

- Contact CJN (see "Contacting CJN Technologies Ltd" on page 23).

Comments and Suggestions

If you have any feedback about this document or about the software itself, please contact us (see below). We welcome your observations and suggestions, as they help us to improve what we offer you.

Contacting CJN Technologies Ltd

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(http://www.cjntech.co.nz/AboutCJN/getting_to_cjn.htm).

Common Actions

When you're using RAMM, some of your actions will be common to more than one task or window. This section describes those common actions.

IN THIS CHAPTER

Synchronising Information Shown in Other Windows

When you select a different road or carriageway section in the Road Selection panel, or a Detail window or a Grid window, all other open windows are usually immediately updated so that they also show the information for the same road/s or section/s.

If Windows Are Not Automatically Synchronised

This automatic synchronisation is turned off if you have:

- Changed the layout of a window - for example, changing the order or grouping of columns in a Grid window.

  -OR-

- Selected multiple roads by name in the Road Selection panel.

If the information in a window has not been synchronised, the whole window turns *grey (dimmed)*.

▶ **To Manually Synchronise Information in Windows**

You can easily tell RAMM to update the information shown in all windows to keep them synchronised, whenever you like. Activate the relevant window or panel by clicking it, and then:

▪ Press the **F5** key at the top of your keyboard, then wait a few moments for the window to show the results.

   -OR-

▪ Click the **Refresh** button on the window toolbar.

Moving to the Next or Previous Record

When you're working with details in a Detail window, you can only see one record at a time. You can easily move to the next and previous record. If you have made changes to the current record, you will be prompted to save them before the next record is shown.

▶ **To Show the Next Record's Details**

▪ From the toolbar at the top of the Detail window, click the **Next** button .

   -OR-

▪ From the menu at the top of the Detail window, choose **View > Next**.

   -OR-

▪ Press ALT + N.

▶ **To Show the Previous Record's Details**

▪ From the toolbar at the top of the Detail window, click the **Previous** button .

   -OR-

▪ From the menu at the top of the Detail window, choose **View > Previous**.

   -OR-

▪ Press ALT + P.

Adding a New Record

When you want to add a new item to a window, you usually have to tell RAMM to create a new record (unless Auto Insert mode is switched on).

▶ **To Add a New Record**

To add a blank new record, ready for you to add details:

- From the standard toolbar, click the **Add Record** button ☐.

  -OR-

- From the menu, choose **Edit > Add**.

Cancelling Changes

When you have made changes that you do not want to keep, and you have not already saved them (see "Saving Your Changes" on page 28), you can tell RAMM to cancel the changes.

▶ **To Cancel Changes**

To cancel changes, without closing the window you're working in:

- From the standard toolbar, click the **Cancel** button ↶.

  -OR-

- From the menu, choose **Edit > Cancel**.

  -OR-

- Press **ESC** on the keyboard.

To avoid saving changes, you can also close the window and click the **No** button when you are prompted to save changes.

Saving Your Changes

When you make changes in a window you have to save those changes to the RAMM database. Until you do this, changes you have made to that record usually exist only on the screen and may be lost when you close that window (or if RAMM fails for whatever reason, while you are working). Read more about how the information shown on your screen relates to the database.

▶ **To Save Changes**

To save changes you have made to the details in a window, either:

- From the toolbar, click the ✓ button.

    -OR-

- From the menu, choose **Edit > Save**.

    -OR-

- Press CTRL + S.

To Avoid Saving Changes

To avoid saving your changes, either:

- Cancel them if you want to keep working in that window.

    -OR-

- Close the window and click on the **No** button when you are prompted to save changes.

Using Auto Insert Mode

Auto Insert mode is especially useful when you are entering many records at once.

Updating a Record

Some Detail and Grid windows in RAMM open as *read-only* by default (for example, most asset windows that open inside the RAMM main window). If you have the correct permissions, you can edit or update the data in these windows.

▶ **To Update a Record**

To edit or update a record in any Detail or Grid window:

- From the window toolbar, click the **Update** button .

  -OR-

- From the menu, choose **Edit > Update**.

Save your changes when you are done.

Deleting a Record

If you have the correct permissions, you can delete records in RAMM Detail and Grid windows. Some windows (for example, the SLIM windows launched from RAMM) do not allow deleting.

▶ **To Delete a Record**

- From the window toolbar, click the **Delete** button .

  -OR-

- From the menu, choose **Edit > Delete**.

Using Collapsible Panels

Some windows in RAMM have collapsible panels, so you can get certain features out of the way when you're not using them. The most obvious examples are the Grid Layout panel and the Road Selection panel, which you'll often collapse to free up space to show more road assets.

▶ **To Expand or Collapse a Panel**

Go to the panel you want to expand or collapse. Point to the panel sizer, the blue marked area on the dividing bar between the panel and the rest of the window with tiny triangles:

Sometimes (in Grid windows and reports) the bar will be horizontal:

The triangles show you the direction the panel will move in when you expand or collapse it.

Click the sizer to expand or collapse the panel.

> TIP: To expand or collapse the Grid Layout panel, you can also go to the menu at the top of the Grid window and choose **View > Show Layout**.

Resetting 'Don't Show This Again' Warning Dialogs

Several message windows in RAMM give you the option of not being shown again - usually in the same day or until the next upgrade is installed. You can easily reset this option to show all warning dialogs again, if you change your mind.

▶ **To Reset 'Don't Show This Again' Warning Dialogs**

1 From the window menu, choose **Options > Reset All Warning Dialogs**. The Reset All Warning Dialogs window appears.
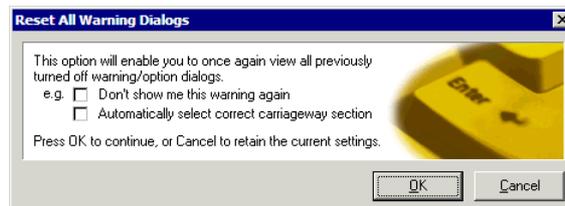
2 Click **OK** to apply the change. From now on, warning dialogs which were hidden will be shown again whenever they are appropriate.

Setting Editing and Viewing Preferences

There are some options you can set that control how RAMM works when you're viewing and editing data. The default settings should be adequate for most purposes, but this is where you change them if you need to. The settings apply only to you, and to the specific RAMM program you're working with - for instance, RAMM Traffic Signals but not SLIM.

To open the Options window, go to the menu at the top of the main window and choose **Options > Preferences**.

Editing Options

You can tell RAMM how to behave when you're editing data, specify what happens when the **Enter** or **Tab** keys are pressed, and whether or not to use Auto Insert mode for all editable windows. You can instead specify Auto Insert for one window at a time, as you use them.
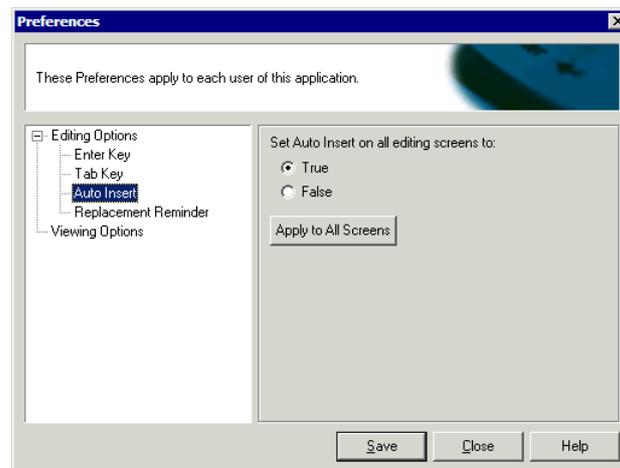
The Replacement Reminder option will activate a reminder on the Replace Asset dialog (see "Replacing Traffic Signal Assets - ts" on page 150) prompting you to *replace all attached assets* in addition to the asset itself.
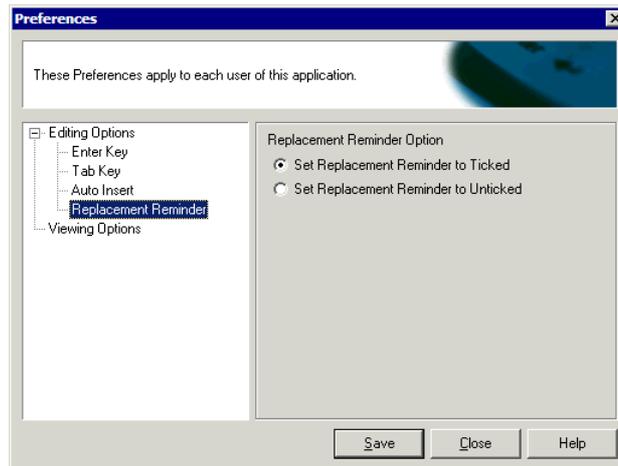
Viewing Options

When you're editing or entering data, all fields where you must enter a value can be highlighted in a different colour. You can set that colour here.
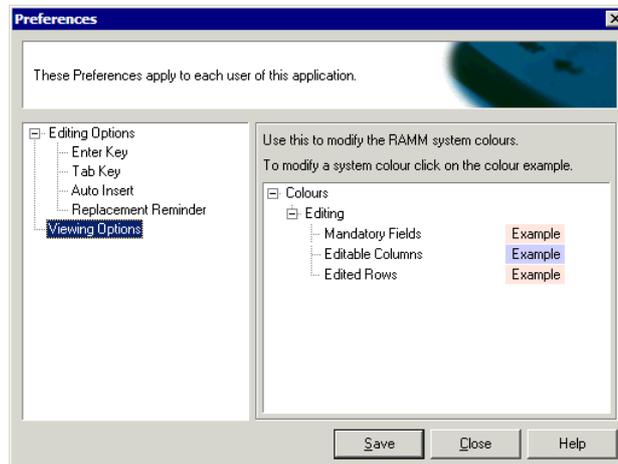
Make your changes and click **Save** to return to the RAMM main window.

Understanding RAMM Traffic Signals

This section covers the basic concepts of RAMM Traffic Signals.

IN THIS CHAPTER

About RAMM Traffic Signals

The RAMM Traffic Signals software has different levels of functionality depending on whether you are using it as a *Client* or a *Contractor*.

If you're a Contractor, RAMM Traffic Signals gives you full control over *building a Traffic Signals inventory* and *maintaining those Traffic Signal assets*, including the ability add, delete or replace assets. If you're using the software as a Client, you cannot maintain assets.

It's also a register of calls and information about asset faults and the *dispatches* that relate to those faults.

Once the faults have been seen to, the contractor can also generate *claims* for the work that has been done.

RAMM Traffic Signals can also generate *reports* that will analyse the traffic signal network in a number of different ways and help with the maintenance.

Background Information

Contracts to install and maintain Traffic Signals are awarded by Councils on a regular basis.

RAMM Traffic Signals enables the transfer of traffic signal asset data between contractors while maintaining a history of asset replacement. It also ensures privacy between contractors.

RAMM Traffic Signals helps to locate traffic signal assets and look into the history of a particular asset's performance, thereby giving Councils and their contractors a more accurate picture of the traffic signal network and its estimated value.

How Does RAMM Traffic Signals Work?

RAMM Traffic Signals is an extension of the RAMM (Road Assessment and Maintenance Management) software. RAMM is used by Councils to help them maintain their roading network and record other network assets.

RAMM Traffic Signals uses the RAMM Roadnames and Carriageway core tables. These tables are maintained by the Council's roading engineers and reflect the current road network. For more information on RAMM, see the *Using RAMM* guide.

Traffic Signals – Concepts

The Traffic Signal information in RAMM is linked to specific terms and concepts. Here are some of the most important:

- *Road*. A road in RAMM Traffic Signals is the unique name given to a length of the network, for example Queen Street or Tamaki Drive.

- *Carriageway*. A road can be divided into logical sections in a number of ways- for example, where an intersection with another road occurs, the start of a bridge, or where an extra lane starts. These divisions are called *Carriageway* sections. The start and end of a carriageway section is measured in metres from the start of the road. To assist in visually locating these boundaries, start and end names can also be used.

- *Primary / Secondary / Tertiary Lantern.* The lanterns for the traffic signals are assigned a priority level according to their visibility to the motorist.

- *Intersection.* Traffic Signals are always located at an intersection- therefore in RAMM the intersection is the primary point of reference for the traffic signals. In some cases a pedestrian crossing with signals some distance away from the main intersection may need to be defined as a separate intersection, even though it may share a controller with the main intersection. You can read more about working with Intersections (on page 42).

■ *Pole Numbering*. RAMM follows the convention that traffic signal poles are numbered clockwise, starting from the Controller unit.
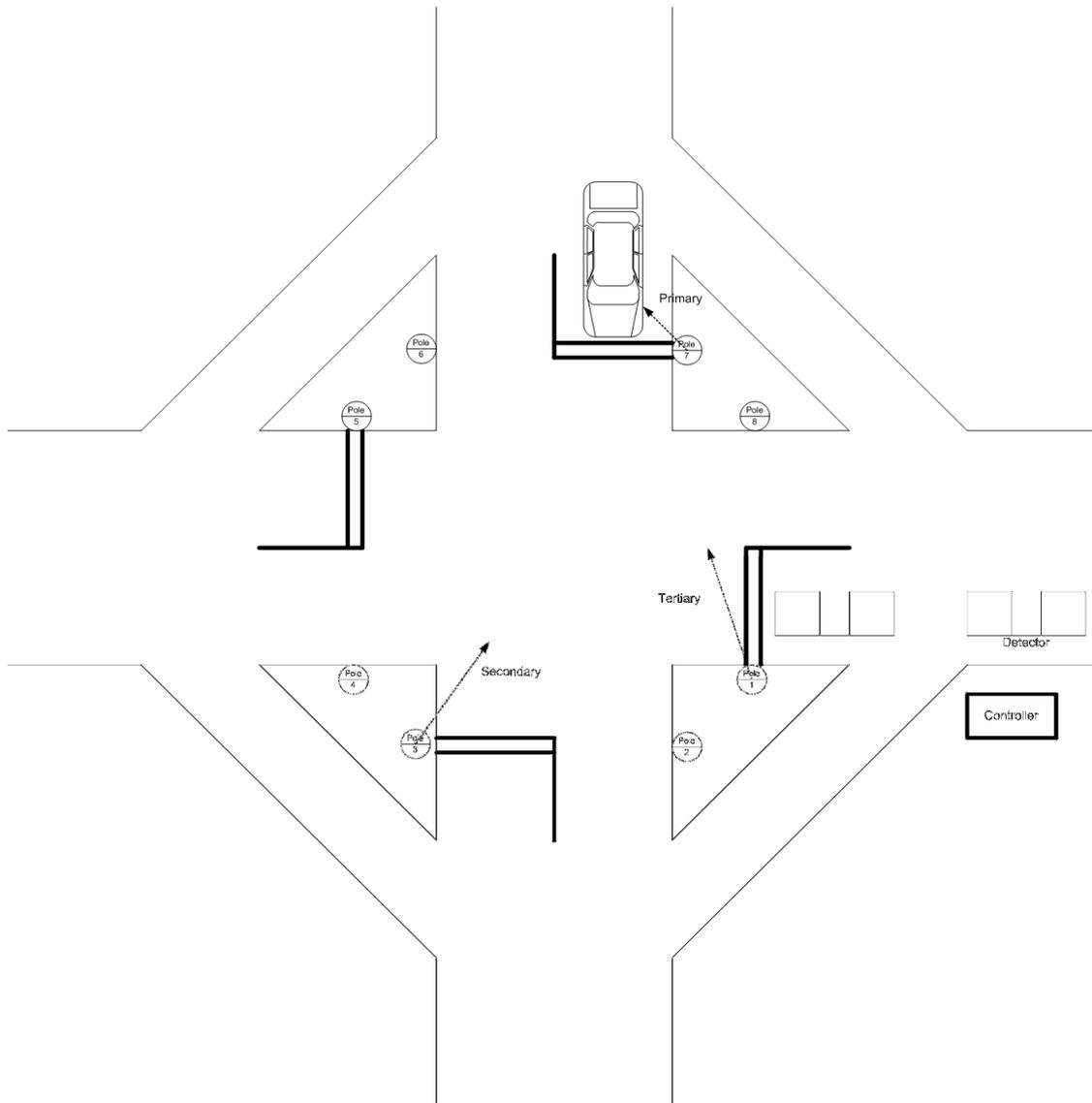
> **NOTE:** If the Traffic Signal data is available in the database, it has already been collected and needs updating only. If you haven't been supplied with the data, you will need to build a Traffic Signals inventory (see "Building a Traffic Signals Inventory" on page 44).

Traffic Signals – Components

A traffic signal has eight basic components.

- *Lantern.* This is the most visible component of the traffic signal system. A Lantern may have a type assigned in terms of priority (primary, secondary or tertiary), a body type, a lamp type, or a display type (for example left turn, right turn, pedestrian).

- *Controller.* This is perhaps the most important component, though it is not usually visible to the motorist. The Controller is the "nerve centre" of the intersection signal system, and may in fact control more than one intersection. A Controller also has a number of sub-components:

    - *Logic Rack.*

    - *Detector Card.*

    - *Software* (for such purposes as Vehicle Preemption).

    - *Communication Device* (for example, a dialup modem, multidrop / multiplexor)

- *Target Boards.*

- *Poles.*

- *Pole Attachments* (for example, cameras).

- *Pedestrian Call Boxes / Pedestrian Detectors.*

- *Loops* (also known as *Detector Loops*).

▪ *Cabling*.

Pole (Mast Arm)

Target Board

Attachment (for example, camera)

Lantern - 3 aspect, Primary Overhead

Lens

Pedestrian Lantern

Target Board (Pedestrian Lantern)

Pedestrian Call Box

Rack (inside Controller) with software / vehicle pre-emption / communications

Cabling

Increasing Direction

Detector cards

Controller

Detector Loop

Note: Not to scale. Lanterns are shown without visors.

NOTE: Visors are not recorded separately, since the visor type may be deduced from the lantern type.

Getting Started with RAMM Traffic Signals

This section tells you how to begin working with RAMM Traffic Signals.

IN THIS CHAPTER

Working with Intersections

Before you begin working with the actual Traffic Signal assets, you should ensure that the Intersections they will be attached to have been *generated* and marked as *controlled*. Intersections are crucial to *locating* Traffic Signals.

Before you begin generating Intersections and setting their status you should also check that Intersection Behaviour and Types have been set up - see Maintenance - Intersection Behaviour and Types (see "Maintaining Intersection Behaviour and Type" on page 182).

Generate Intersections Using the Map

Using Mapping (on page 227) to generate your intersection data is quick and efficient.

This is done in RAMM Manager. Select **Projects > Intersection > Generate Intersections Using the Map**.

RAMM Manager will bring up a dialog warning you that the Map Index may need to be recalculated. RAMM will then search the database for intersections and list them in the Intersections Grid window.

There are some occasions on which an intersection will not be generated - such as when a road on the map cannot be matched to a road in the database. An exact intersection location can be determined when the intersecting roads start or end where a carriageway starts or ends.

> NOTE: If the intersection occurs *within* a carriageway instead of at its beginning or end, RAMM Mapping will find it difficult to determine the location accurately from the map. In these cases an intersection record will still be generated, but it will *not have a location*. RAMM will calculate the location from the data available, and put this into the **Notes** field as *Approximate Location ....m*. When you have the opportunity, the correct location should be entered.

Two reports are also available in from the same menu in RAMM Manager to help manage and verify your intersections. Go to **RAMM Manager > Projects** and make your selection:

- **Identify Roads without Intersections**
- **Identify Intersections with Invalid Locations**.

Maintaining Intersections

To maintain the intersections you've loaded into RAMM, launch the relevant Grid window by clicking the Intersections button on the main RAMM window toolbar -OR- click the Intersection button on the toolbar of the main RAMM Traffic Signals window. These two Grid windows are different but perform essentially the same function. We show the main Intersection Detail window below.

Click the **Update** button to edit or change the details.
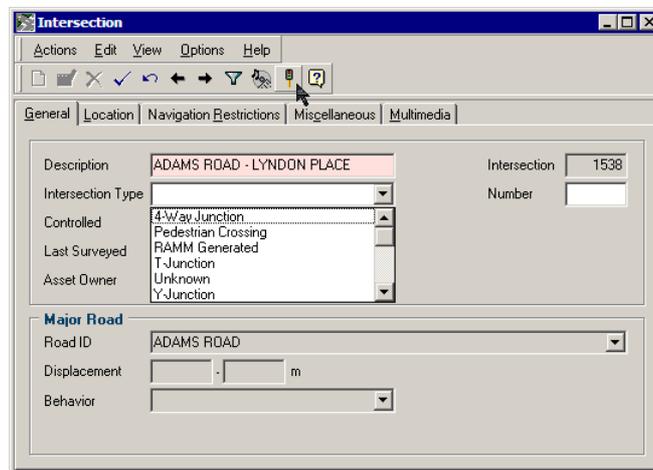
You can set up intersection types as above. Intersections can occur on a single road, to indicate a Pedestrian Crossing or the Traffic Signals at a Fire Station.

> **NOTE**: You can launch the Traffic Signals window from the Intersection Grid and Detail windows as indicated by the mouse arrow above.

Identifying Controlled Intersections

Identifying an Intersection as a Controlled Intersection is done manually. In the **Controlled** field of the Intersection Detail window, ensure that **Yes** is selected.

> **NOTE**: For more information on maintaining Intersection *Locations* and *Navigation Restrictions*, see the *Using RAMM* guide.

Save your settings once you're done.

Building a Traffic Signals Inventory

Building an initial inventory of Traffic Signals is necessary when you have no Traffic Signal data at all and you need to collect this information from scratch. If you already have a Traffic Signals inventory, you can go on to the next step (see "Launching RAMM Traffic Signals" on page 45).

This can be done for an entire network, but more commonly when surveying traffic signal assets in a new subdivision.

▶ **How To Build a Traffic Signals Inventory**

1 *Draw up specifications*. It's good to agree on consistency in respect of terminology, descriptions etc for all traffic signal assets. For example, referring to a Detector Card as *AWA MT24B* in one place and *MT24B* in another place will cause unnecessary problems with the database. If only one person is involved in collecting the information this is less of a problem, but if a team is involved there must be a specific method to how it's done.

2 *Collect the information*. Below is a checklist of the data you should collect.

- *Components*. Information about the components of each asset (for example, information about the light must also include information on the gear and the lamp).

- *GPS* co-ordinates.

- *Location*. Information about the location of the asset. The most important is the Intersection, but details such as the Road name are also useful.

- *Feature*. Any other useful information about the asset location, for instance *pole believed to be live*.

- *Photographs*. Photographs are useful to illustrate the above, and can be attached as multimedia objects in the Traffic Signals window.

- *Assessment* information. If Assessment information is supplied with the assets it should be entered into RAMM Traffic Signals.

3 *Record the information*. The Traffic Signal asset information you collect can be in any format - for example, you can collect your information in an Excel spreadsheet on a handheld or laptop computer and CJN Technologies can import it into RAMM Traffic Signals. Please contact us (see "Contacting CJN Technologies Ltd" on page 23) to inquire about the costs involved. Alternatively, you can key the asset information into RAMM Traffic Signals yourself.

4   *Set up the contract.* Once your Traffic Signal asset data is in RAMM Traffic Signals, you are ready to begin setting up a contract and managing your network. For more information, see Setting Up A Contract (on page 65).

5   *Enter the Traffic Signals inventory items.* The quickest and easiest way to do this from scratch is to use the Traffic Signals Insert Wizard (on page 89).

NOTE: The *Road ID, Location* and *Side* can be generated from the Easting and Northing Values.~q is this still true

Launching RAMM Traffic Signals

There are two main methods of launching the RAMM Traffic Signals application, described in detail below. If you need help with setting up RAMM Traffic Signals on your computer, see Setting Up RAMM Traffic Signals (on page 55).

You can also launch RAMM Traffic Signals from inside RAMM main window, from the Intersection Grid and Detail window toolbars.

Launching Installed Versions of Traffic Signals

On computers running Windows 95 and later, use your **Start** menu to launch RAMM Traffic Signals from the relevant program group. RAMM Traffic Signals may be in its own program group or in the RAMM program group, depending on how it has been installed.

You will next connect to your database. If your database has not been set up for you, see Setting Up RAMM Traffic Signals (on page 55).

RAMM Traffic Signals will show you the database login screen:
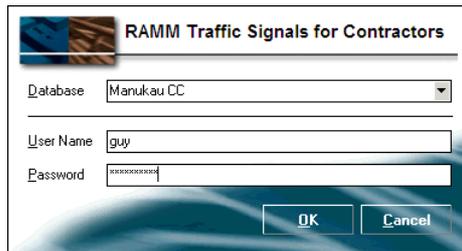
The database name should be visible in the Database field – if you have more than one database installed click the ▼ to select the one you want from the drop-down menu.

Enter your User Name and Password and click **OK**, and you will connect to the RAMM Traffic Signals main window.

Launching RAMM Traffic Signals Via Hosting

Use a standard web browser (for example Internet Explorer) to connect to our website (http://www.cjntech.co.nz).

Click on the links to **RAMM Hosting** and **Login Here**. Enter your Hosting Username and Password in the window below and click **Login**. This will have been supplied to you by CJN Technologies earlier. Contact us (see "Contacting CJN Technologies Ltd" on page 23) if you can't remember them.

If you haven't installed the Citrix ICA client you will need to do so first – see Setting Up RAMM Traffic Signals On The CJN Hosting Service (on page 56).
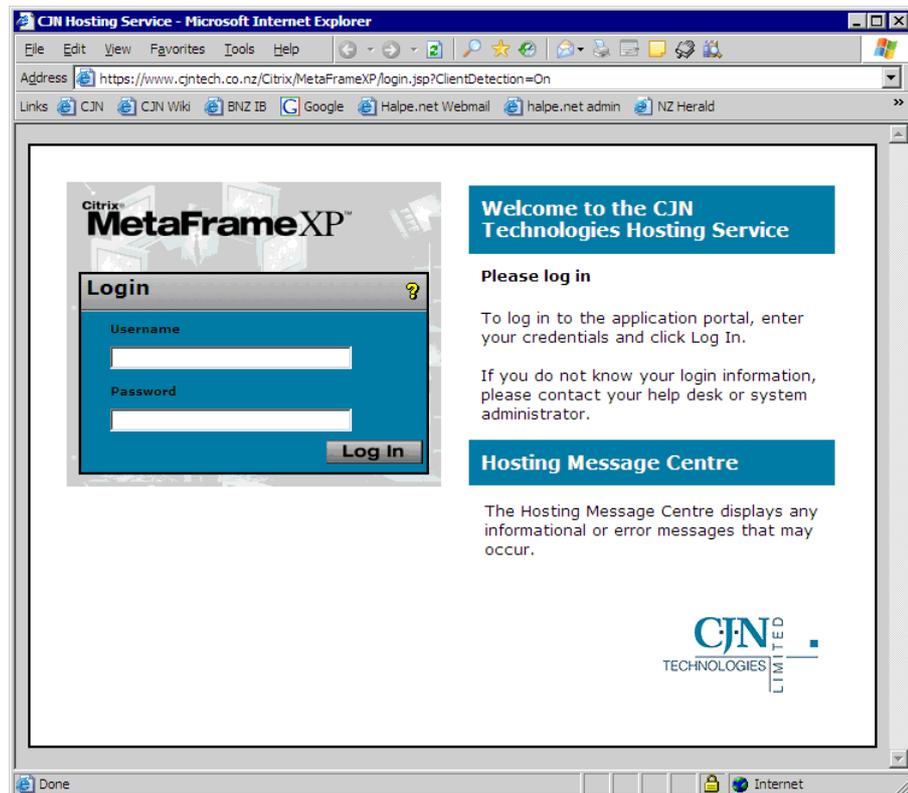
You will then see a number of icons to launch programs. Launch RAMM Traffic Signals from the icon below by choosing either the **Full Screen** or **Seamless** (windowed) option.

On the Hosting service RAMM Traffic Signals is usually configured to connect automatically to your database.

RAMM Traffic Signals Workspace

Here are some of the terms we use for different areas of the RAMM Traffic Signals workspace. We describe the RAMM Traffic Signals buttons and controls in more detail in RAMM Traffic Signals Toolbar buttons (on page 51).

Pop-up help

All buttons and fields in RAMM Traffic Signals have pop-up help. Just hover your mouse over a control, button or field and a little pop-up will describe what that control or field is supposed to do.

RAMM Traffic Signals Main Window

This is the main window you see after starting RAMM Traffic Signals and connecting to your database.

The database you're connected to is always shown in the title bar of the window at the top.

The RAMM Traffic Signals main window has four buttons on its toolbar to launch its main function windows- they're described in the section on the Main Window Toolbar (on page 52) below.

You can also launch these windows from the **Actions** menu. Whether you begin working with the menu bar or click on any menu link under *Home* in the main section of the window, the result is the same- a sub-menu will open up, and your current location in the menu structure will be indicated next to *Home*.

RAMM Traffic Signals Working Windows

The working windows are broadly divided into two areas, the *List panel* and the *Detail panel*. The Detail panel is itself sometimes divided into an upper and lower

section, depending on which function of RAMM Traffic Signals you're currently using.
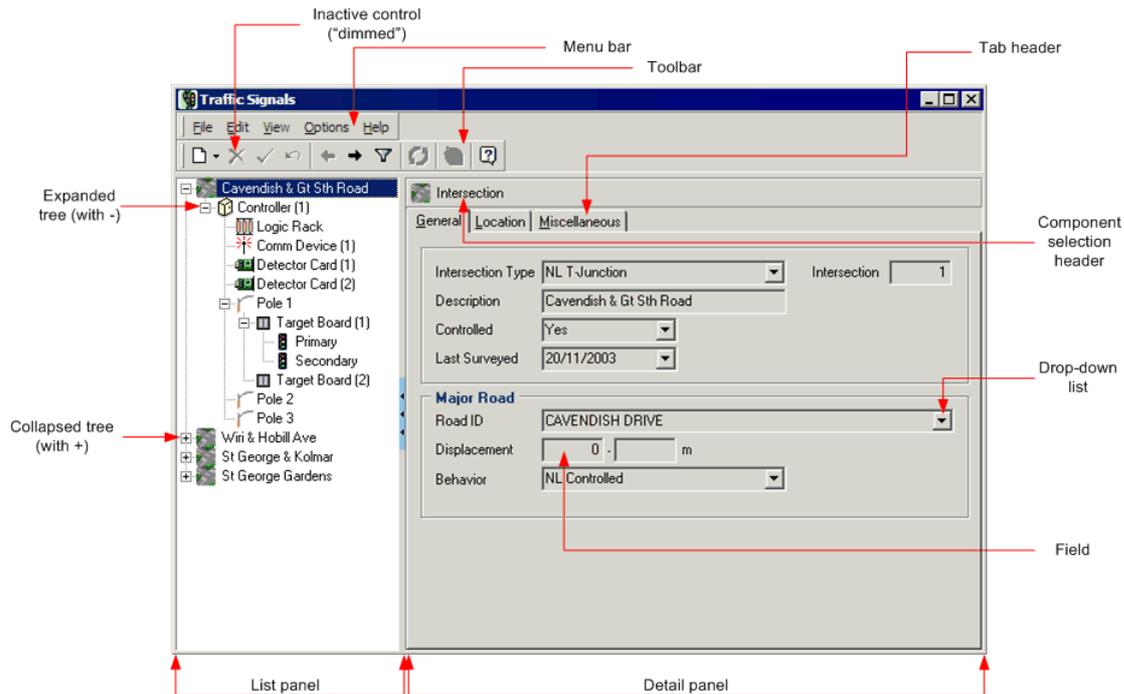
You'll select either dispatches, traffic signals or claims in the List panel on the left. In some cases you can view further details of the item in the List panel by clicking the + to expand the tree.

The Detail panel is where you view and enter details for the items you have selected in the List panel in corresponding fields. Often the Detail panel will have more than one tab, as above, and you can activate each tab by clicking on the *tab header* to reveal the fields you need. You can either type directly in the *field* or make a selection from a *drop-down list*. These selections are set up beforehand in Maintenance (on page 175).

Some fields are highlighted in a colour to indicate that they are mandatory.

Note the *component selection header* at the top of the Detail panel. This is simply a visual confirmation of what you have selected in the List panel for your convenience.

The *toolbar* at the top is where you will find buttons to quickly perform important actions- the buttons you see will change according to the window you are currently in. These actions can also be selected from the *menu bar*. If a control for

an action is unavailable, it is "dimmed" as above. See RAMM Traffic Signals Toolbar buttons (on page 51).

Using Collapsible Panels

Some windows in RAMM Traffic Signals have collapsible panels, so you can get certain features out of the way when you're not using them. Most Maintenance windows have them.

To expand or collapse these panels, you use the *Panel Sizer*, the blue marked area on the dividing bar between the panel and the rest of the screen with tiny triangles:

Sometimes (in Grid windows and reports) the bar will be horizontal:

The triangles show you the direction the panel will move in when you expand or collapse it.

Click the sizer to expand or collapse the panel.

TIP:	You can also go to the menu at the top of the respective window and choose **View > Show Layout**.

RAMM Traffic Signals Toolbar Buttons

Every RAMM Traffic Signals window has a toolbar at the top that contains buttons for quick access to RAMM Traffic Signals functions. We've described them all here for you as a toolbar "quick reference".

The exact buttons you see on each RAMM Traffic Signals window toolbar vary according to the task at hand. If you'd like to know more about a control, hover your mouse over any button in RAMM Traffic Signals and a pop-up description will appear. This description will also give you the HOTKEY combination for that respective action. If disabled, use the ALT key to make them visible.

Main Window Toolbar

These buttons launch the main functions of RAMM Traffic Signals.

- **Dispatch Entry**. For viewing, entering, managing and printing dispatches relating to Traffic Signal problems and setting relevant options.

- **Intersections**. To enter and manage intersection information.

- **Traffic Signals**. To view and manage traffic signal units, including poles and other components. Replacements and asset updates are also carried out here.

- **Contract Claims**. When dispatch and asset replacement or updating work is concluded, claims for the work done are generated and managed here.

Common Toolbar Controls

- **Add Record**. Adds a new record relevant to the window you're in.

- **Delete Item**. Deletes the selected item.

- **Save Item**. Save the current window.

- **List View**. This toggle reveals or hides the **List panel** (see "RAMM Traffic Signals Workspace" on page 49).

- **Detail View**. This toggle reveals or hides the **Detail panel**.

- **Previous Item**. In a window with a number of records, clicking this button will take you to the previous record.

- **Next Item**. In a window with a number of records, clicking this button will take you to the next record.

- **Undo action**. Undo the last action you performed.

- **Filter**. This control is to perform actions in the **Filter window** (see "Filters" on page 97). The Traffic Signals and Dispatch Entry windows are filtered by default, so if you don't see anything when you open them you may need to adjust the filter.

- **Decision Cube**. You can generate analyses of RAMM Traffic Signals information in various ways with the **Decision Cube** (on page 203).

- **Multimedia**. This button is to load multimedia objects into your database- for example, digital camera images of traffic signal assets.

- **Help**. Click this button to access context sensitive help from any screen

-OR-

Press **F1** on your keyboard.

Dispatch Entry Toolbar Controls

- ▪ No Dispatch Updates **Dispatch Update**. When you are in the Dispatch Entry window, if this button shows **Refresh Dispatches** instead of **No Dispatch Updates** as above, you have new dispatches via email from your client. Click the button to refresh the Dispatch list in the List panel.
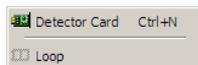
For a full description of the controls and menus that apply to the dispatch management process, see Dispatch Entry (on page 76).
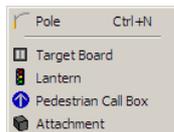
Traffic Signals Toolbar Controls

- ▪ **Add Traffic Signal Item**. This button is used for adding new traffic signal components to the network quickly. The drop-down list will change according to the item currently selected in the List panel as below.

  - ▪ If *Controller* is currently selected, the following options become available:

    Controller   Ctrl+N
    Comm Device
    Detector Card
    Pole
    Cable
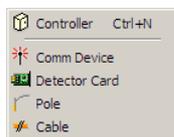
  - ▪ If *Detector Card* is selected, the following options become available:

    Detector Card   Ctrl+N
    Loop

  - ▪ If *Pole* is selected, the following options become available:

    Pole   Ctrl+N
    Target Board
    Lantern
    Pedestrian Call Box
    Attachment

  - ▪ If *Target Board* is selected, the following options become available:

   Target Board   Ctrl+N
    Lantern
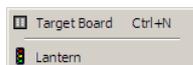
> NOTE: If any other component is selected, no further options are available
> beyond the individual component itself.

- **Replace**. Replace an asset.

For a full description of the controls and menus that apply to the traffic signal
management process, see Traffic Signals (on page 133).

Status Check Controls

- **Tick All**. Select all the options available for the Status Check.

- **Tick None**. Clear all selections.
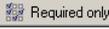
- **Required only**. Select options based on the availability of data.

For more information, see Status Check (on page 269).

Patrols Window Controls

- **Show Patrol Area**. This control is available only in **Patrols** (on page 153). It shows
the area that the patrol is responsible for.

Preview Toolbar Controls (for Reports)

- **Zoom To Fit**. Fits the entire page to the preview window.

- **Zoom To 100%**. Actual size.

- **Fit Width**. Fits the width of the page only to the preview window.

- **Zoom in**. Enlarge the text by zooming in each time you click the button.

- **Zoom out**. Reduce the text by zooming out each time you click the button.

- **Go To First Page**. Displays the first page of the preview.

- **Go To Previous Page**. Displays the previous page.

- **Go To Next Page**. Displays the next page.

- **Go To Last Page**. Displays the last page.

- **Print Report**. Brings up the Print dialogue for your default printer to enable
you to print the report.

- ☞ **Open Report**. Brings up the Open File dialogue to enable you to select a previously saved report file and open it.

- 💾 **Save Report**. Brings up the Save File dialogue box to enable you to select a location and Save As Type and save the report as a file.

For more information, see Viewing and Saving Previews and Reports (on page 202).

Setting Up RAMM Traffic Signals

This section is aimed at the RAMM Traffic Signals Contractor. If you're a RAMM Traffic Signals Council client and have purchased RAMM Traffic Signals, then this will be made available as part of the RAMM install. The RAMM Traffic Signals tables are incorporated in your existing RAMM database, and once the software is loaded you'll be able to access them.

As the new contractor you need to start by *setting up* your database and your contract details.

If you'd like a quick guide to those actions you need to do most often, such as entering dispatches, completing them, updating the network and claiming for work done, see Daily Tasks (on page 75).

Once the work is done, you can generate and keep track of *claims* for the work.

Two Ways Of Setting Up RAMM Traffic Signals

There are two methods of setting up RAMM Traffic Signals- you either install it on your computer from a CDROM, or contact us to set up RAMM Traffic Signals on the CJN Hosting Service.

These depend on whether you have been supplied with traffic signal data or not, and whether you are using the CJN Hosting Service or an installed version on RAMM Traffic Signals.

> **NOTE**: If you do not have traffic signal data, you will need to go out into the field, record information about the traffic signal assets and build the inventory (see "Building a Traffic Signals Inventory" on page 44).

Setting Up RAMM Traffic Signals On The CJN Hosting Service

This section deals with setting up RAMM Traffic Signals on the CJN Hosting service. If you're not using the CJN Hosting Service, go the next step (see "Setting Up RAMM Traffic Signals On Your Local Computer" on page 57).

To use RAMM Traffic Signals on the CJN Hosting Service, all you need is a connection to the Internet and a standard web browser like Internet Explorer. For more information on Hosting- click on the link to **RAMM Hosting** on our website (http://www.cjntech.co.nz).

Before You Log In To The Hosting Service

- You need a login *Username* and *Password*. The process of setting up the Hosting Service generally includes setting up permissions and access levels to RAMM Traffic Signals databases, so you should already have your username and password by this time. If you need help with this contact your administrator or contact us (see "Contacting CJN Technologies Ltd" on page 23).

- You also need to install the *Citrix ICA Client*. This is a small programme that facilitates the connection to RAMM Traffic Signals. If it's not already installed, RAMM Traffic Signals will prompt you to download and install it. Our Hosting page on the website has a link for this purpose.

You're now ready to start working with RAMM Traffic Signals (see "Launching RAMM Traffic Signals" on page 45).

Setting Up RAMM Traffic Signals On Your Local Computer

This section describes how to install RAMM on your computer, and RAMM Traffic Signals with it.

We assume that you already have your database. If you do not, contact us (see "Contacting CJN Technologies Ltd" on page 23).

> **NOTE**:   These options do not apply to the RAMM Hosting Service.

Installing RAMM

To install the RAMM software just place the CDROM in the drive. Most computers will generally automatically run the CDROM and begin the RAMM installation. If this does not happen, use **My Computer** to open a window for your CDROM drive, which will then show the contents of the CDROM disc. Open the **RAMM_ALL_SETUP** folder, and double-click the **RAMM_ALL_SETUP.exe** file.

▶ **How To Install RAMM**

**1**   The setup process begins with this screen.

Click **Next** to proceed.

2   You will now see the License Agreement. Read the license, select the **I accept the agreement** option, and click **Next**.

3   You can now choose the installation folder. By default the software will be installed in the directory

C:\PROGRAM FILES\CJN TECHNOLOGIES\RAMM

You can click **Browse** to change this if you wish, and click **Next** to proceed.

4   The next screen allows you to customise your installation, and select or deselect RAMM applications as you wish.
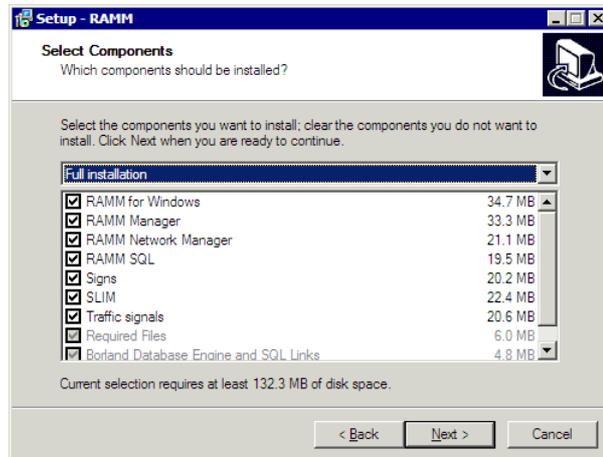

Click **Next** when you're done.

5   Setup will now give you an option to configure and change the options for your Windows Start Menu. Click **Next** when you're done.

6   In the **Select Additional Tasks** screen, you can choose not to set up desktop icons. Click **Next** when you're done.

7   Setup now shows you a final **Ready To Install** screen as a checklist of the installation components. At this point you can select **Back** and change your selections, or click **Install** to proceed.

While the installation proceeds, you will see a progress bar:
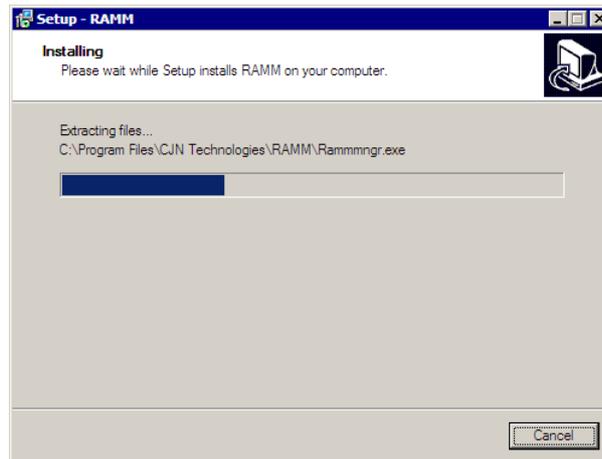
8 You will see this screen when Setup is finished.
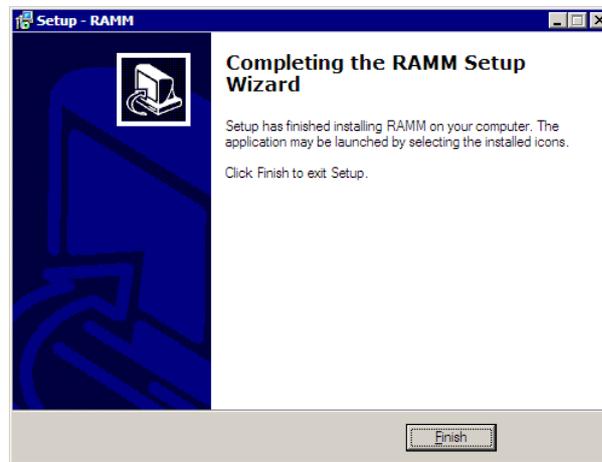
Click **Finish** to return to Windows. You're now ready to connect to your database and, if necessary, upgrade it.

> **NOTE:** The directory location is up to you, but please ensure it is placed on a drive that is regularly backed up.

9 When you click **OK** RAMM Traffic Signals will go through the process of loading all the tables and setting up the database. You'll see a series of progress windows. Please be patient, this step of the process takes some time.

10 When the database setup is finished, click **OK**. RAMM Traffic Signals is now up and running.

Setting Up Your RAMM Database

You will generally need to load a RAMM database only if you have never done so before. In rare circumstances you may also need to reload your RAMM database after a system or machine crash, or configure additional databases to connect to.

You should have the database file already, either on your computer or in a location accessible through your office network.

> **NOTE**:   These options do not apply to the RAMM Hosting Service.

▸ **How To Load the RAMM Database**

1   Start up the RAMM software.

2   Select **Database > Maintain List**. If you do not have any databases loaded, the window will open empty. Click **Add** to set up a database profile, or **Update** if you're changing the details of a profile.

3   Select the type of database you have. Contact us (see "Contacting CJN Technologies Ltd" on page 23) if you're not sure.
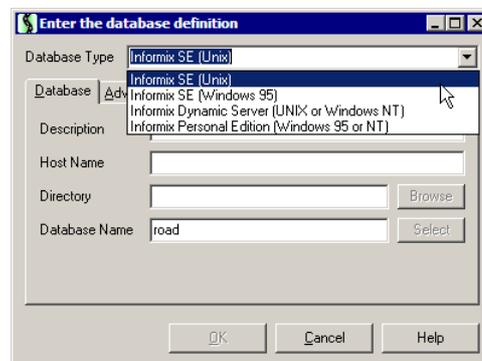
4   Enter the **Description** of the database. This is what you will see as the database name when you connect to it.

5   Enter the **Host Name**. This is the name of the computer where your database is located.

**6**   Enter the **Directory** where your database is located.

This varies depending on the sort of Database Type you have chosen. If you've selected *Informix SE (Unix)*, it will be a location such as **/usr/roads**, and the **Browse** button will be unavailable. If you've selected *Informix Dynamic Server*

(Unix or Windows NT) or *Informix Personal Edition (Windows 95 or NT)*, Host and Directory settings are immaterial. If your choice was *Informix SE (Windows 95)* you can set a directory path of your choice. The default path is:

C:\Program Files\CJN Technologies\RAMM\Database

> **NOTE:** The directory location is up to you, but please ensure it is placed on a drive that is regularly backed up.

7 The **Database Name** must be the name of the database file supplied to you.

8 When the database definition setup is finished, you should see something similar to this:
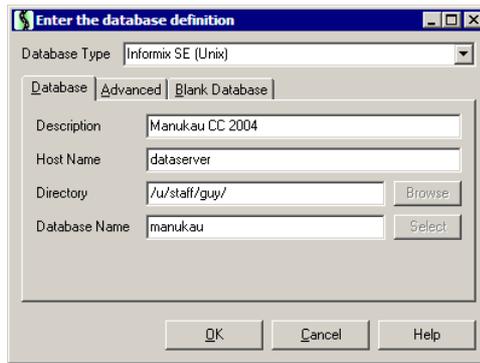
9 Click **OK** to return to the list window, and the database you just set up should now appear in the list.
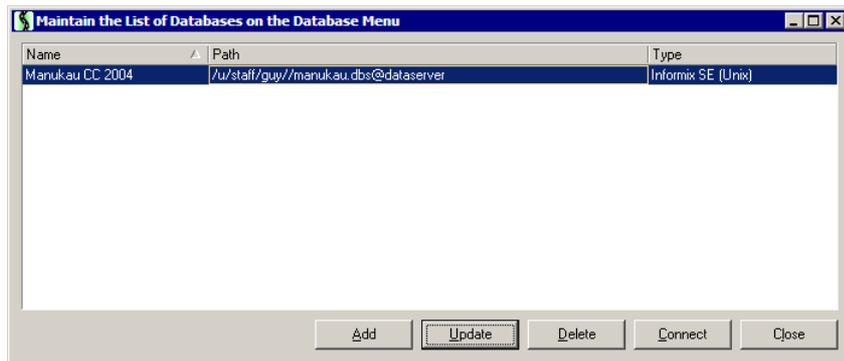
The database is now ready for you to connect to it. See Logging In below for more information.

Logging In

Like most applications, the first thing you have to do when you're using RAMM is log in. RAMM will verify your login name and password, and may present you with other options before it starts.

If you're using the RAMM Hosting service, RAMM already knows who you are from your hosting login, so you won't need to login again.

Sometimes the entire process of logging in may take only a few seconds, and other times it may take quite a few minutes. This depends on how up-to-date your database is, the speed of your network and/or Internet connections, and how powerful your computer is.

▶ **To Log In**

1   Start RAMM Traffic Signals.

- If you're using the RAMM Hosting service, you'll start the program from your Hosting Applications page on the CJN Technologies website (http://www.cjntech.co.nz). Go directly to Step 3.

- If you're using a copy of RAMM installed on your computer, start the program from your Windows **Start** menu or Desktop shortcut.

The Login window appears.
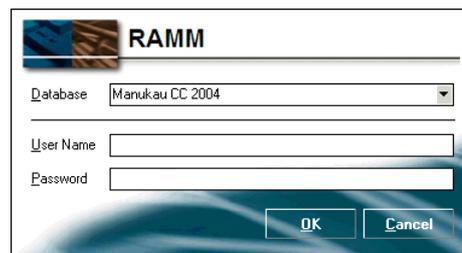
2   You'll see the last database you used in the **Database** field. You can also select another database:

Select it from the drop-down list

-OR-

Click the **Cancel** button, then when the RAMM main window appears, choose **Database** from the menu, then choose a different database from the list. If you don't see the database in the list, you may need to click **Maintain List** and set up a new database.

3   Type the **User Name** and **Password** for the database and click the **OK** button.

4   If RAMM detects that the information stored in your database is not up to date, you'll be prompted to run processes to update it, but only if you have the correct security permissions. If you do not have permissions, you'll need to ask your System Administrator to run the update, and you can jump directly to Step 7 now.
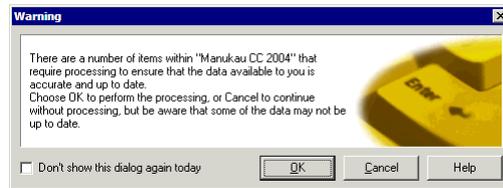
- Click the **Cancel** button to work with the existing information, knowing that it may not be up to date.

- Click the **OK** button to perform the processing first. This may take some time, depending on the size of your database and how out of date it is. A confirmation window lists all the items that need processing.

5   To prevent this prompt window from appearing if you login again today, click the **Don't show this dialog...** tickbox so it's ticked, then choose either of the options described above.

6   You may be asked to set options for display of Treatment Length details.

7   If RAMM detects that the structure of your database is out of date, you'll be prompted to upgrade it if you have the correct security permissions. This process may take some time, depending on the size of your database and how out of date it is.

> **TIP:**   We strongly recommend that you make a backup of your database before upgrading. Click the **Backup** button to do this.
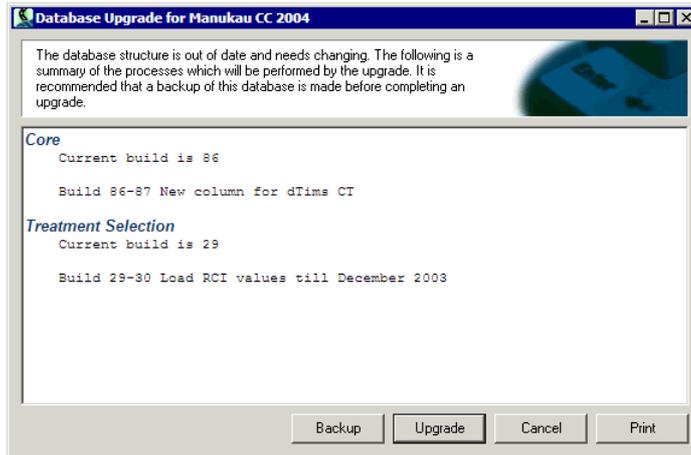
> **NOTE:**   If you do not have permissions, you'll need to ask your System Administrator to run the upgrade.

Click the **Upgrade** button to begin the database upgrade.

8   RAMM will ask you to confirm that you wish to upgrade the database. Click **Yes** to start the upgrade process. You'll see progress indicators while the process runs.

> **WARNING:**   If you stop the process by clicking the **Abort** button, your database will be unusable without repair by CJN, so we strongly recommend that you do **not** do this.

9   If the copy of the RAMM program you're using has recently been upgraded to a later version, you can read the changes included in that version.
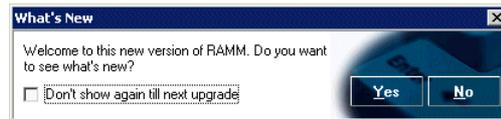
- To read the changes, click the **Yes** button. Your browser shows a page describing the changes.

- To continue without reading the changes, click the **No** button.

- To prevent this prompt window from appearing again when you login – until the next time the RAMM program is upgraded – click the **Don't show again...** tickbox so it's ticked, then choose either of the options described above.

10   The RAMM main window appears.

Setting Up A Contract

If you've successfully set up RAMM Traffic Signals and connected to your database you're now ready to set up your Contract Details, Contract Item Activities and Schedule Items. If you haven't, see Setting Up RAMM Traffic Signals (on page 55).

This is a very important step, as it will establish a number of settings for other areas of RAMM Traffic Signals.

You can always return here to make changes, but entering the details as accurately and comprehensively as you can at the beginning of the contract is crucial.
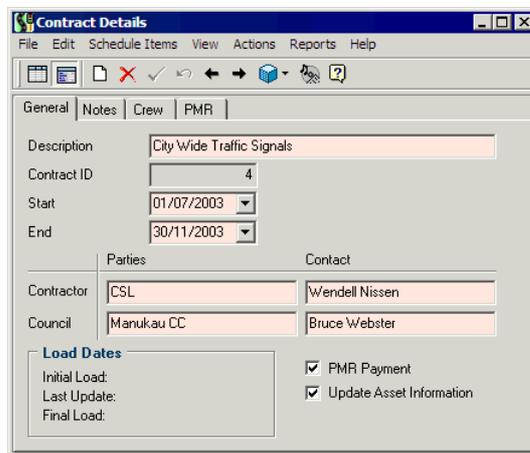
Doing so will help you perform your contract duties efficiently and quickly.

Setting Up Contract Details

From the main RAMM Traffic Signals window, click **Maintenance > Contract Details** to view and work with your contract details.

If Your Contract Is Already Loaded

If your contract was loaded when you installed RAMM, you will see the contract details when you open this window. If you see a contract already loaded in the *Contract* field, go straight on to setting up Contract Item Activities (on page 68).

Adding A New Contract

If you need to set up a contract from scratch, however, the fields above will be blank. To add a contract, click the **Add Record** button ▫ on the toolbar of your window

-OR-

Simply start typing in a blank field.

▸ ## How To Enter Contract Details

You'll notice that while you are doing the initial input of contract details, the words *Setting Up* are visible on the window next to the Contract ID field. You'll now enter contract details and set up Contract Item Activities (see "Setting Up Contract Item Activities" on page 68). When that's done, to make the contract available you'll need to open the contract (see "Opening The Contract" on page 71).

> **NOTE:**   All coloured fields are mandatory (you must enter the information).

1   Enter the **Contract** name and a unique (user defined) **ID** number. This may be supplied to you by the client.

2   Enter the start and end dates of the contract in the **From** and **To** fields.

3   Enter the names of the organisations involved in the **Parties** section and the individual **Contact** for each organisation.

4   The **PMR Payment** and **Update Asset Information** options should not be changed unless you are specifically instructed to do so. PMR represents Piecemeal Rate - for more information on PMR payments, see Crew Payments (on page 165). For more information on updating assets, see Updating Assets (on page 149).

5   You can record any general comments relating to the contract on the **Notes** tab.

6   Enter the names of crew members if necessary on the **Crew** tab. These can be referred to later when claiming for work done. See **Crew** (on page 167) for more information.

7   **Save** ✓ the contract details into RAMM Traffic Signals.

For more information on the **Reports** menu, see Reports (on page 201).

Setting Up Contract Item Activities

These are the activity *categories* for the schedule items you will be entering.

> **TIP:**   For example, within the contract there may be a number of different items for replacing lanterns. The breakdown of these items will reflect the differing costs for each wattage and type. If you set up "*Replacing Lanterns*" as a Contract Item Activity this enables you to enter all related schedule items under the one activity. This allows grouping later on the overall cost to replace lamps.

It's advisable to set these up first before setting up schedule items.

Close the Contract Details window and select **Maintenance > Contract Item Activities** from the main RAMM Traffic Signals menu.
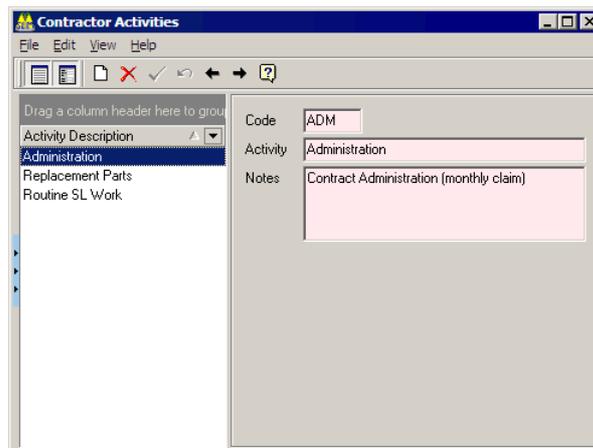
▸ **How To Enter Contract Item Activities**

1   Enter the activity categories you need by clicking the **Add Record** button ⬚ .

2   Enter a **Code**, an **Activity** name, and descriptive **Notes** in the respective fields.

3   Save ✓ the entry.

4   Repeat steps 1 through 3 as needed.

5   Close the window when you are done.

These activities will become available to you from a drop-down list when you're entering the schedule items.

For more information, see Maintaining Contract Item Activities (on page 179).

Setting Up Schedule Items

If you've finished entering the general contract details and the contract item activities, you're now ready to enter Schedule Items.

Select **Maintenance > Contract Details** from the main RAMM Traffic Signals window and click the **Schedule Items** button on the menu.
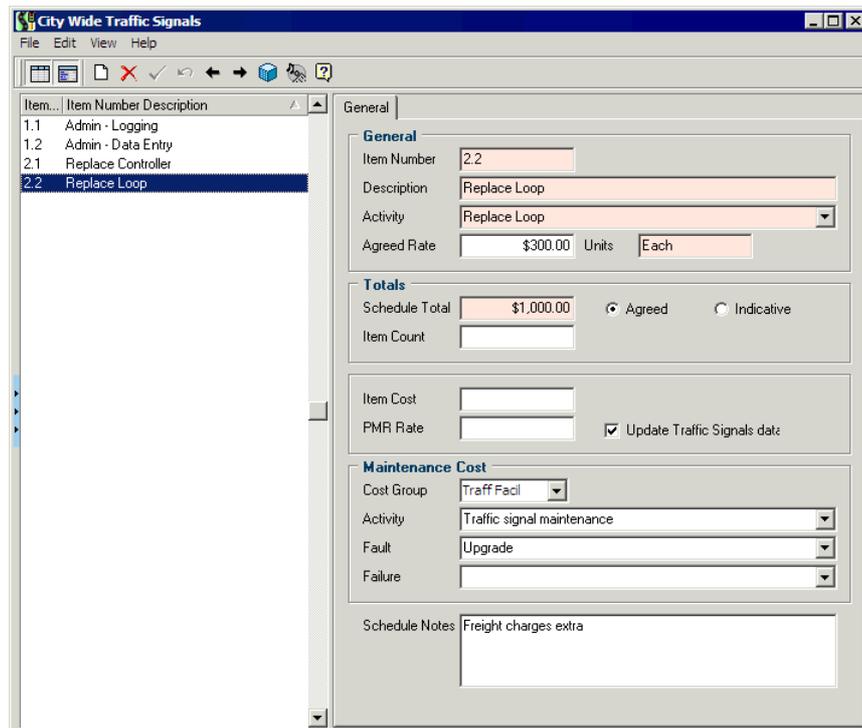
> **NOTE:**   The schedule items reflected in this window must reflect the schedule
> items on your contract. You'll need a copy of the contract before you
> proceed any further.

▶ **How To Enter Schedule Items**

1   Click the **Add Record** button ▢ on the toolbar of your window to begin entering
schedule items.

2   **Item Number.** The numbering system you use here should reflect the system in
the contract itself. This column allows both alphabetical and numeric
characters, so by using either a space ( ) or a zero (0) before the number, you
can ensure that your schedule items are sorted correctly.

> **TIP:**   To get items 1 through 11 to appear in the correct order, enter item
> 1 with either a space (1) or a zero (01) before it. Item 2 should be
> entered the same way (2 or 02) - and so on.

3   **Item Description.** When entering schedule items, it's important to enter a
meaningful description to make working with schedule items easy and
efficient not just in this window but in RAMM Traffic Signals generally.

> **TIP:**   A long description like **Replacement of Gough GL 500 50w Lantern** is likely to
> have you searching through a long list of schedule items to get to the
> one you want. Entering the same item as **50w GGL 500 L** will make
> things much easier for you. Especially when it comes to replacing
> assets in the Traffic Signals window, simply start typing **50w** ..... and
> RAMM Traffic Signals will jump to the 50w items, refining the list
> as you keep typing the description.

4   **Activity.** Choose the appropriate contract item activity for the schedule item. If
you don't have any activities in the drop-down list they need to be set up
beforehand, from the **Maintenance > Contract Item Activities** menu (see "Setting Up
Contract Item Activities" on page 68).

5   **Rate.** The rate is optional but the unit indication is mandatory. The rate
entered here will be used as the default rate when claiming for this item.

6   **Totals.** This section requires you to enter an amount as an **Allocation** for the
specified schedule item that covers replacement as well as overheads. This can
be an **Agreed** amount or an **Indicative** number only. You can also enter the **Hardware
Cost** for comparison if you wish. The **Item Count** is an estimation of how often
within the contract you expect to claim for that schedule item. The **PMR Rate**
field will be active only if you have ticked **PMR Payment** (see "Piecemeal Rate" on
page 166) while setting up contract details.

7   **Notes.** This space is for any notes you wish to attach to a specific schedule item.

8   Save ✓ each item. Repeat the steps above until all items are entered.

9   Close this window to return to the Contract Details window, which you can also close if you are done.

Opening The Contract

When you've finished entering Contract Details, Contract Item Activities and Schedule Items, you're ready to open the contract and begin work on it.

If not, see Setting Up a Contract (on page 65).

In the Contract Details window, click **Actions > Open Contract**. Depending on the permissions that have been set up for you in the Security section, you're now able to enter dispatches, carry out replacements, and generate claims on this contract. For more information on permissions see Security (on page 271).

Setting Up Call Types

Call Types describe the source of a fault report - for example a consultant, staff, patrol, or a member of the public. Call Types are required on the Dispatch Entry window (on page 108), where you will select them from a drop-down list.

In the main RAMM Traffic Signals window, select **Maintenance > Dispatch > Call Types** to begin setting them up.
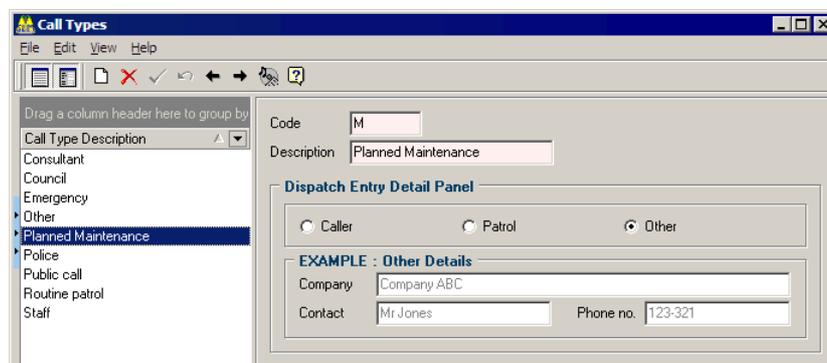
▶ **How To Set Up Call Types**

1   Click **Add Record** ▯

-OR-

CTRL+N on your keyboard.

2   Give your call type a **Code** and a **Description**.

3   Select either **Caller, Patrol** or **Other** to define the category for this call type. Your selection will be reflected at the bottom of the Detail panel of the Dispatch Entry window, and will govern how you record details about how the fault was reported.

4   Save ✓ each entry, and repeat the process for each item.

5   Close the window to exit when you are done.

Setting Up Fault Categories

Fault Categories describe the actual faults. Like Call Types, Fault Categories are required when you're working in the Dispatch Entry window.

In the main RAMM Traffic Signals window, select **Maintenance > Dispatch Definitions > Fault Categories** to begin setting them up.
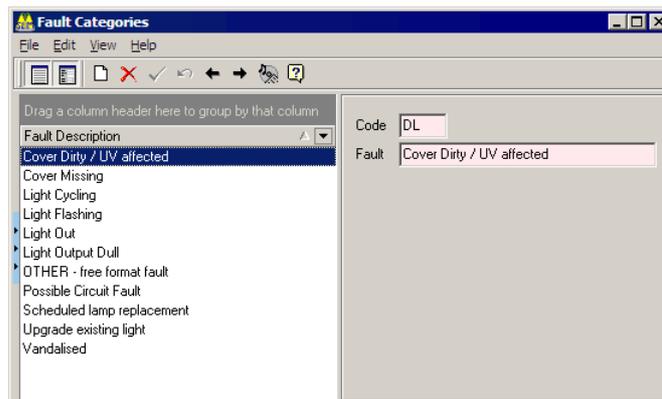
▶ **How To Set Up Fault Categories**

1   Click **Add Record** ▯

-OR-

CTRL+N on your keyboard.

2   Enter a **Code** and a **Fault** description.

3   Save ✓ each entry, and repeat the process for each item.

4   Close the window to exit when you are done.

> **NOTE**:   Categorising call types and faults into groups allow the client to collect statistics on how the faults are reported. For example, if Routine Patrols find the greater percentage of faults, it's proof that they are a worthwhile expense.

RAMM Traffic Signals Tasks

This section outlines the common tasks involved in maintaining your traffic signal network.

IN THIS CHAPTER

Daily Tasks

You're now ready to get started with the regular tasks involved in working with RAMM Traffic Signals.

We've categorised them as follows:

- Daily tasks (in this section).

- Other regular tasks (on page 88).

> NOTE: The exact frequency of these tasks is up to you, and naturally dependent on the stipulations of your contract. Our recommendations are a guide only.

For more information on setting up a new contract, see Setting Up A Contract (on page 65).

Dispatch Entry

Dispatch handling is a key area of RAMM Traffic Signals.

This is where you'll record all the faults that are found or reported on your traffic signal network as a dispatch.

These dispatches can then be printed and passed on to the maintenance crews.

Entering as much detail as possible is an important aid to locating the faulty asset.

This section of the RAMM Traffic Signals guide gives you a quick introduction to entering a new dispatch. For more detailed instructions, see Dispatches (on page 107).

> **TIP:**   For more information on RAMM Traffic Signals windows and controls, see RAMM Traffic Signals Workspace (on page 49).

▸ **How To Enter A Dispatch**

   1   From the main RAMM Traffic Signals window, click the **Dispatch Entry** window launch button

-OR-

Select **Actions > Dispatch Entry**.

> **NOTE:** When you open the Dispatch Entry window, RAMM Traffic Signals
> filters the dispatches you see to display only *current* or *outstanding*
> dispatches. See Filters (on page 97). These include dispatches that
> may have been emailed from your Council, which will be
> highlighted in the List panel. For more information see Email
> Options (on page 124). Completed dispatches are still in the system,
> just not visible.

2   Click the **Add Record** button

-OR-

CTRL+N on your keyboard.

RAMM Traffic Signals now adds a new dispatch to the List panel with a Call Status of *Entered* and records the date and time in the Entered field on the Detail panel.

3   Select a **Contract** by clicking on the ⬛ in the **Contract** field. If you don't see a contract, you need to close this window and set it up (see "Setting Up A Contract" on page 65). If the List panel already has dispatches, the contract and other details will default to those of the last highlighted dispatch.

> **NOTE:**   Coloured fields are mandatory.

4   Select the **Call Type** from the drop down list, and enter corresponding Details in the panel below the Location section. If you do not have a list of Call Types, you need to set them up (see "Setting Up Call Types" on page 71).

5   Select the **Fault**. This can either be a Standard fault you can select from the drop-down list, or you can select Other and enter your own. If you have no faults in your drop-down list, you need to set them up (see "Setting Up Fault Categories" on page 72).

6   **Priority**. The default is **5 Days**. If you select a priority level in hours, the dispatch will be marked with red or orange icons according to the priority level, and this will be indicated on the printed dispatch (see "Printing Dispatches" on page 79).

7   **Location**. The location information should be entered as accurately as possible. Select the Feature Side (the side that the asset is located on). You can also leave this as the default, **Not Applicable**.

> **NOTE:**   All other fields in the Location section (**Address, Feature, Notes**) are optional, but remember that the more information you include, the easier it will be for your crew to find and fix the fault. The information you enter here also depends on how you identify features on your traffic signal network. For example, if you prefer to identify Traffic Signals by Pole ID, you can configure this section to show Likely Pole ID instead. For more information on the other fields in the Detail window and on the other tabs, see Dispatches (on page 107). It's advisable that you enter at least a possible house number or Pole ID - if you don't enter any location information at all, your dispatch won't show any poles.

8   Save ✓ the dispatch into RAMM Traffic Signals.

9 Once you've entered the dispatches, you need to print them (see "Printing Dispatches" on page 79).

> TIP: To show the Intersection in the list select **Options > Show Intersection In List.**

Printing Dispatches

Once you've entered your dispatches into RAMM Traffic Signals, you need to print them out for your crew so that they can find and fix the faults.

This section gives you basic instructions on printing a dispatch for your maintenance crew. For more advanced printing options related to dispatches, see Dispatch - Printing Options (on page 120).

> TIP: For more information on RAMM Traffic Signals windows and controls, see RAMM Traffic Signals Workspace (on page 49).

▶ **How To Print Dispatches**

1 In the Dispatch Entry window, select **Actions > Print Dispatches**

-OR-

CTRL+P on your keyboard.

> TIP: If you want to print a specific dispatch, in the Dispatch Entry window, select the dispatch you want to print in the List panel and select **Actions > Print Selected Dispatch** from the menu
> -OR-
> CTRL + B on your keyboard.

2 By default this window is set up to print only the newly *Entered* dispatches. Once the *Entered* dispatches have been printed they will show as *Dispatched* in the List Panel of the Dispatch Screen. The dispatches will also be updated with the date and time the print dispatch process was run.

3 Report Selection. What you see on your report is governed by the selections in this section. With **Full Report** selected, you will see a single dispatch per page. The number of pages will correspond with the number of dispatches *Entered*.
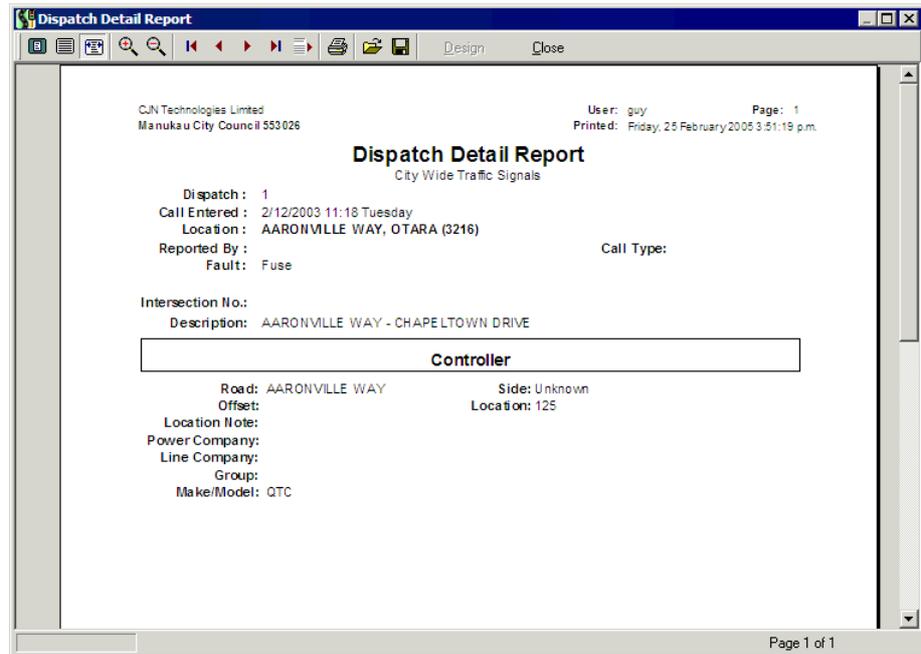
NOTE: With **Full Report** selected, the report will show a number of poles in the vicinity of the location details entered. If there is a direct match between the location entered and the RAMM Traffic Signals data *Most Likely* will be printed alongside the pole.~q most likely – is this true

The **Summary** selection lists the same dispatches but with just the dispatch information.
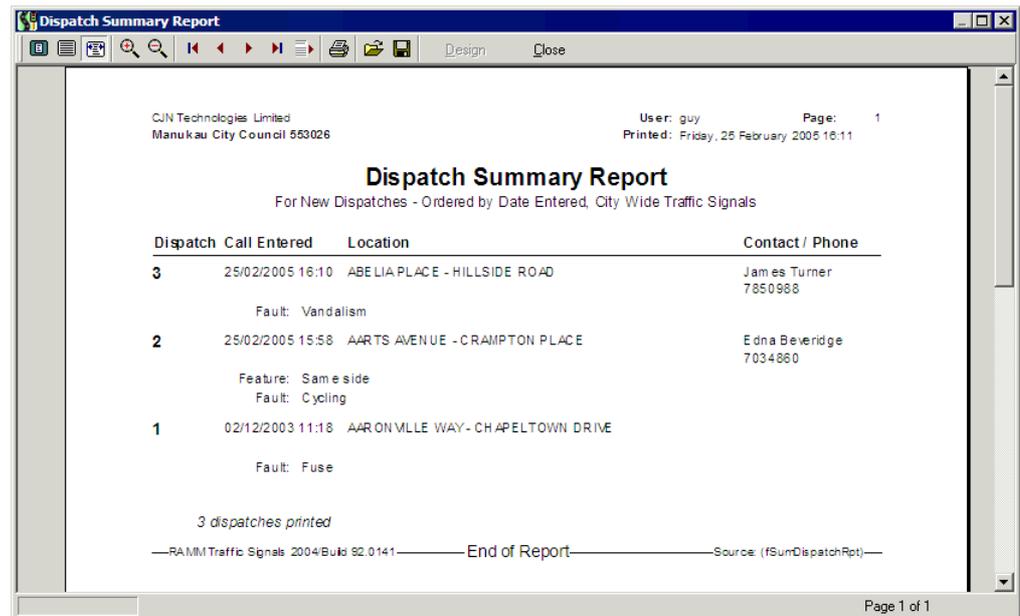
Once you've made your selection, click **Preview** to see what the report will look like or **Print** to print it directly. Click **Close** when you are done. Either or both types of reports can be printed at the same time.

4   When you return to the Dispatch Entry window, you'll see the dispatches that had a status of **Entered** have now changed to **Dispatched**, and the date and time of dispatch are also present.

For the other printing options available on this window, see Dispatch - Printing Options (on page 120).

Completing Dispatches

A dispatch is completed when the required maintenance is done and the asset is working. If your crew have seen to the problem, you need to complete the dispatch in RAMM Traffic Signals, update the asset/s repaired or replaced, and link the work done to a Claim Line.

▶ How To Complete A Dispatch

1   Open the Dispatch Entry window (on page 108) and select the dispatch you wish to complete.

2   Select **Actions > Complete Dispatch** from the menu

-OR-

Use the key combination CTRL + O.

3   RAMM Traffic Signals asks you to confirm your action. Click **OK** to proceed. RAMM Traffic Signals may also warn you if the dispatch is still flagged as *Entered*. Dispatches do not have to be printed before they are completed.

4   The Call Status in the List Panel will change to *Complete* and you'll be taken to the **Maintenance Notes** tab to add notes. These maintenance notes will show on the Dispatch Summary Report for completed dispatches- see Dispatch Summary Report (on page 221).

NOTE: The *Completed* date of the dispatch will default to the current date, but should be changed to reflect the actual date of completion. Click the drop-down arrow ▾ on the **Completed** field to bring up a Date Picker to do this. It's important to have the correct Completed date as this date is used to calculate response times.

5   Click the save button ✓ to complete the dispatch and proceed to the Traffic Signals window to update the assets that have been repaired or replaced as part of this dispatch.

Replace Asset

You now need to update the asset register to reflect the actual repairs made by the crew.

The Traffic Signals window will be opened and a filter applied, using the road and house number information from the completed dispatch. See Filters (on page 97) for more information.

> **NOTE**:   The Update Asset option on the Contract Details window must be ticked to enable you to replace an asset as part of the dispatch completion process. See Updating Assets (on page 149).

▶ How To Replace The Asset

1   Select the pole that the work was carried out on in the List panel. You need to be absolutely sure to select the correct pole, or you'll replace the wrong asset. This is where details like the pole number and pole ID will be crucial. For more information see Options - Database (on page 170).

2   Click the tab for the asset you wish to replace.

3   Click the **Replace Asset** 🔁 button on the toolbar.

4   Choose a replacement reason from the drop-down list and click **OK**.
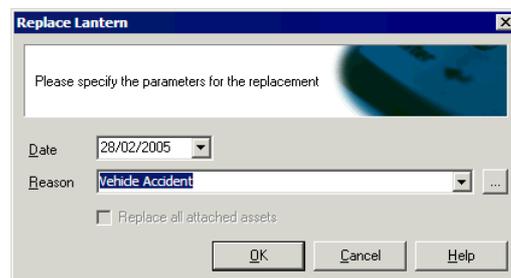
If you don't have Replacement Reasons to choose from, you can click the button to set them up.

The date will default to the *Completed* date, but you can choose another from the date picker if required.

For more information, see Maintaining Replacement Reasons (on page 186).

5   Choose the replacement make and model from the relevant list on the asset tab.
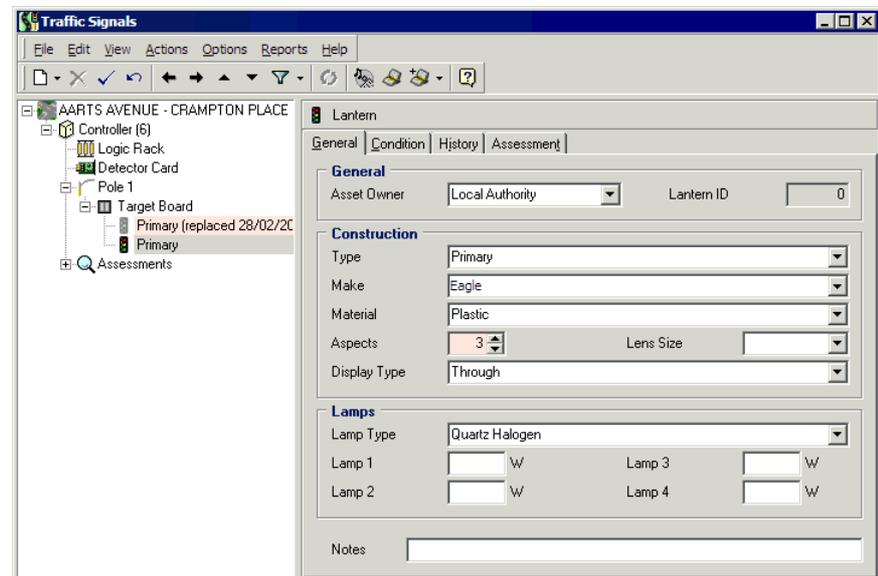
If you don't have makes and models to choose from, see Maintenance (on page 175).

6   Save ✓ the replaced asset. The Date, Dispatch and Reason fields in the Replaced row will be updated.

7   Repeat steps 3 through 6 as needed.

8   Close the window. When you have finished replacing the assets RAMM Traffic Signals will automatically take you to Claims to claim for the repairs that were carried out in order to get the asset working. See Claims (on page 159).

Your replacement has now been recorded in history, and will be available for the relevant reports and analyses. See Replacing Traffic Signal Assets (see "Replacing Traffic Signal Assets - ts" on page 150) for more information.

Claim Lines

RAMM Traffic Signals takes you into the **Claims** module as part of the dispatch completion process. If you choose not to continue, you can always manually enter the claims window by selecting **Actions > Claim Lines** from the Dispatch Entry window menu.

Claim Lines represent each part of the work done to repair the asset and are created based on the list of schedule items set up for the contract. This is equivalent to the amount the Council will be charged for the work. Claim lines are grouped together under a claim header. Each claim header reflects a claim period, for example monthly, or fortnightly. See Claims (on page 159).

Claim lines can only be created for completed dispatches. As many claim lines as required can be entered during this process. Each claim line is linked to a scheduled item in the contract.

By default, the Claim Lines window shows you only the Detail panel. If you wish to view multiple claims, click the List panel button on the toolbar- see RAMM Traffic Signals Toolbar Buttons (on page 51).

A claim line must be linked to a claim header so that the amount can be presented to the Council. By default the new claim line will be added to the currently open header.

If there is no claim open, you will be prompted to create a claim.
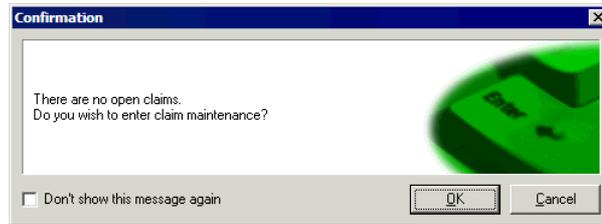
On the other hand, if there is more than one claim open, you will be prompted to select a claim.
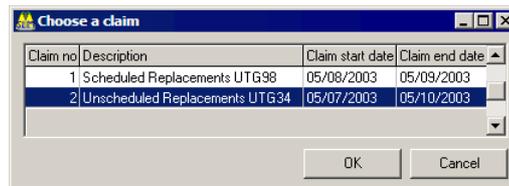
In both cases, all lines being entered for this dispatch will be linked to this claim. For more information, see Claims.

▶ **How To Enter A Claim Line**

1 Item. Select the Schedule Item that corresponds to the fault that has been fixed. This is the reference for the claim line. By default, the Quantity, Units and Rate/Unit are carried across from the item definition. The Claim Amount = Quantity x Rate. If one of these values is altered, the other values will be updated.

> NOTE: To view all dispatches with more than a specific number of claims per dispatch, see Auditing (on page 216).

2 The Crew name is optional, unless the Piecemeal Rate (see 7. below) applies to the contract. Select a crew name from the list. Crew members are entered on the Contract Details window while setting up contract details (see "Setting Up Contract Item Activities" on page 68).

3 Where there is some problem about a specific claim, the claim line can be flagged Held from Payment on the Claim tab, and the claim line will not appear in a claim. The claim line can be reinstated at a later date and then presented for payment.

4   Claim group codes can be selected on the Claim tab. These will be available to you if you have set Claim Groups 1 and 2 to Optional or Required in RAMM Traffic Signals Options (on page 169).

5   You can also enter **Notes** if necessary.

6   **Dispatch Details.** This tab shows details from the dispatch, which are useful when viewing the claim line from the Claims window (see "Claims" on page 159).

7   **Payment tab (PMR only)**. This tab will be available only if the *PMR Payment* option has been activated when setting up the contract (see "Setting Up A Contract" on page 65). It shows details of the PMR rate. The contractor may choose to mark this claim line for non-payment at this time by selecting **Do not Pay** on the Payment tab. See Crew Payments (on page 165) for a full description of the application of the Piecemeal Rate.

8   Save ☑ each item. You can continue to enter claim lines, and close the window when you're finished.

> **NOTE**:   You can enter as many claim lines as you need - in this window you're in auto-insert mode, so you can keep adding claim lines.

When all lines have been entered, close this window. You will be returned to the Dispatch Entry window, and you will see that the dispatch call status in the List panel will now show as *Complete*.

This dispatch is now complete, and you can move on to the next one.

Other Regular Tasks

There are other tasks in RAMM Traffic Signals that you need to perform at regular intervals in addition to daily tasks (on page 75). These can be weekly, monthly, quarterly, or at predefined intervals.

Below are some regular RAMM Traffic Signals tasks and an indication of how often they are performed.

- *Patrols* **(on page 153)**. Your patrols are your "eyes and ears" on the street, and you need to ensure that patrols are being conducted regularly and efficiently. If they are, the dispatches you enter will mainly originate from patrols rather than from other sources (the public, staff etc). The frequency of patrols will be stated in the contract.

- *Claims* (on page 159). Claims need to be presented to your client regularly to ensure that the work flows smoothly and that you make and receive payments

on time. Presenting and completing claims are covered in a separate section, and are generally done every month.

Traffic Signals Insert Wizard

This page is a quick guide to inserting Traffic Signals for an Intersection. It will guide you through the steps entering the necessary inventory items for the Traffic Signals, and in the right order.

▸ **Inserting Traffic Signals**

1   Open the Traffic Signals window (on page 134).

2   Select the Intersection you want to enter Traffic Signals for. You may need to use the filter (see "Filter Window" on page 98) to sort your intersections and get the one you want.

3 Click the **Add Record** button and select **Controller** to begin. This will launch the Traffic Signals Insert Wizard.
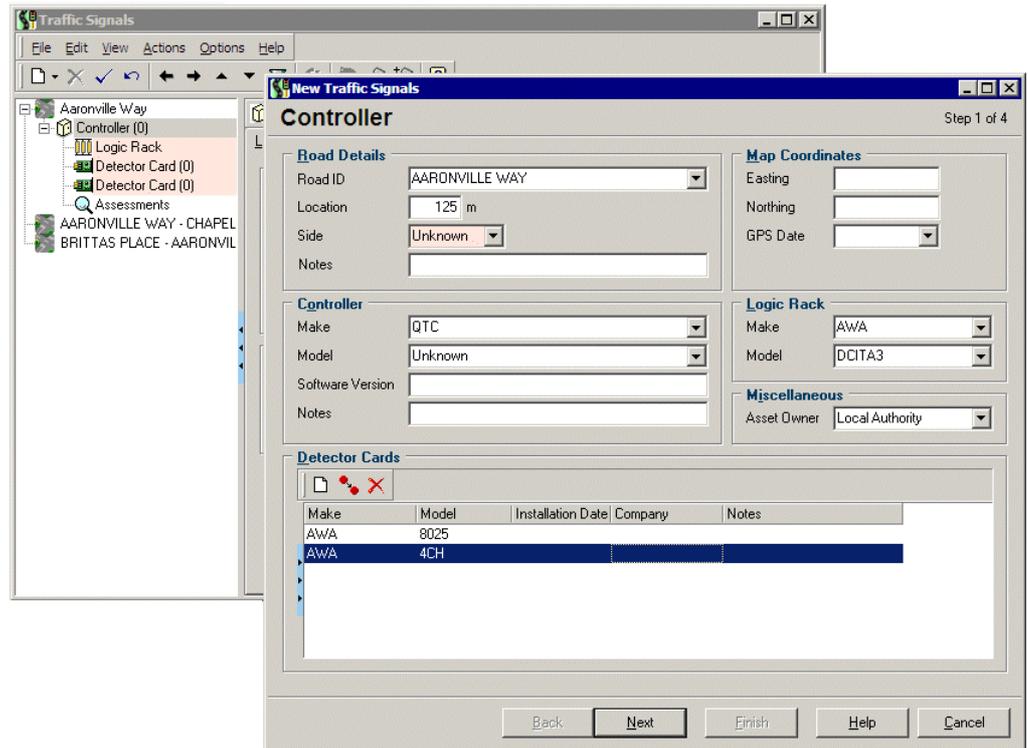
The wizard has a number of grids for entering asset details, and each grid works in the same way. You can use the standard RAMM Grid layout controls to customise the columns that are displayed in each grid, so that you don't see columns that you aren't interested in.

> **NOTE**:   Viewing the Grid window behind the wizard as above is a good idea, so that you'll see the inventory items as you add them to the Intersection.
>
> You can use the **Tab** key to move quickly from one field to another. This also works within grids to jump between columns.
>
> You can use the **Insert** key and the CTRL + Delete key combination to insert and delete records easily within each grid.
>
> When entering inventory items in fields and grid columns, you can type the **Code** for an item to quickly jump to it in the drop-down list.
>
> When entering a number of similar items at once, you can use the **Duplicate** button ⚬ to quickly create a new record from the one you're working with. Remember to check that all of the details are correct for the new item.

Enter the details for the **Controller** and the **Detector Card(s)**.

Click **Next** to continue.

4   You can now set up the Poles for the intersection.
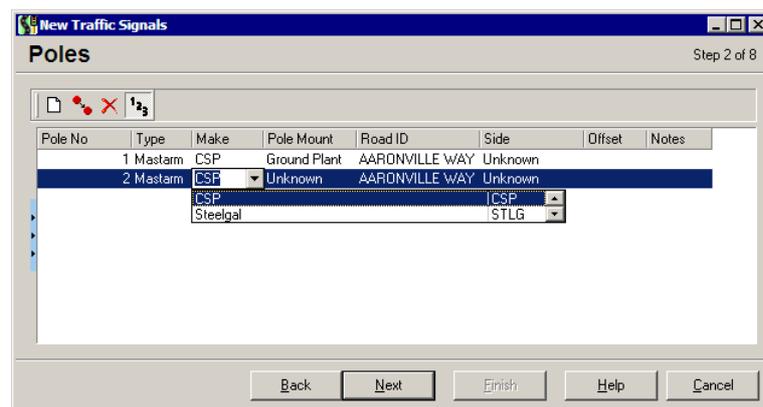
The **Auto-Number** button ¹₃, when enabled, will automatically number the poles you add in ascending order. When you've entered all the necessary poles, click **Next** to continue.

5 You'll now be asked to enter details for each pole, on separate windows, in the order you entered them in 3. above.
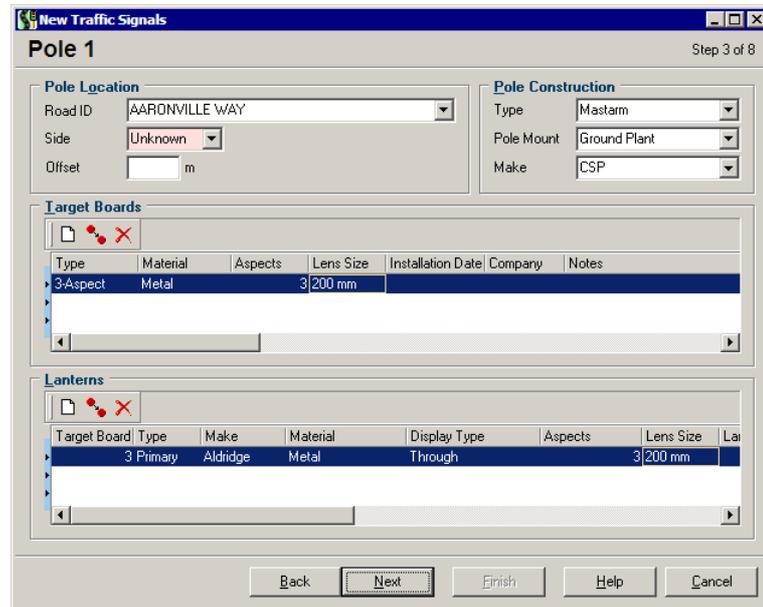
To attach a Lantern to a Target Board, select the Lantern and choose the Target Board to which it is attached in the Target Board column. You may find it easiest to enter all your Target Boards first, and then all your Lanterns.

NOTE: Remember that the Lanterns listed are all Lanterns attached to the Controller, rather than Lanterns for the selected Target Board.

When you're done, click **Next** to continue.

6 You'll see a second screen for Pole 1, to continue entering more inventory items.
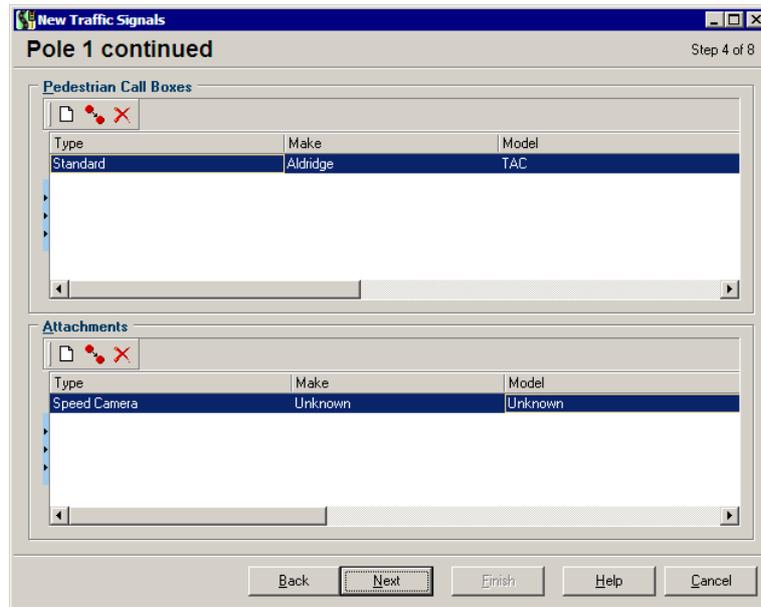
Enter the details and click **Next** to continue.

7 The wizard will now cycle through 4. and 5. above for each pole, to enable you to enter the necessary details.

8   If you entered any Detector Cards in 2. above, the wizard will now ask you to enter details for them, including any attached Loops.

The Wizard will repeat this step for each Detector Card in the Controller. Click Next to continue. If there are no more Detector Cards to enter, the **Next** button will be dimmed and the **Finish** button will be active.

9   Click **Finish** to return to the Traffic Signals Maintenance window.

10 Save ☑ your settings.

Concluding the Contract

At the end of your contract, once all dispatches have been concluded and payments collected, the contract is closed.

This should be done even if you know that the next contract will also be awarded to you.

▸ **To Close the Contract**

1   Select **Maintenance > Contract Details > Actions > Close Contract** from the main RAMM Traffic Signals window to close the contract.

2   A confirmation dialog will ask whether you wish to close the contract. After this has been done, no new dispatches or claims can be entered, and no data transfers can be done. Click **OK**.

3   The contract will now be closed, and marked as such in all relevant screens.

Filters

This section describes working with filters.

Filters help you find the data you're looking for quickly. You'll use a database filter to narrow down the amount of information that is retrieved from the database and sent from the server to your computer. You're only sending the information you need across your network, which increases speed and reduces network traffic. This is especially important if you're using the CJN Hosting service.

IN THIS CHAPTER

Filter Window

To launch the filter, click the ⏀ button on the toolbar of the Dispatch Entry or Traffic Signals window

-OR-

Selecting **Options > Edit Filter** from the menu

-OR-

Use the key combination CTRL+F.

The screen below is what you see when launching filtering from the Dispatch Entry window (on page 108).
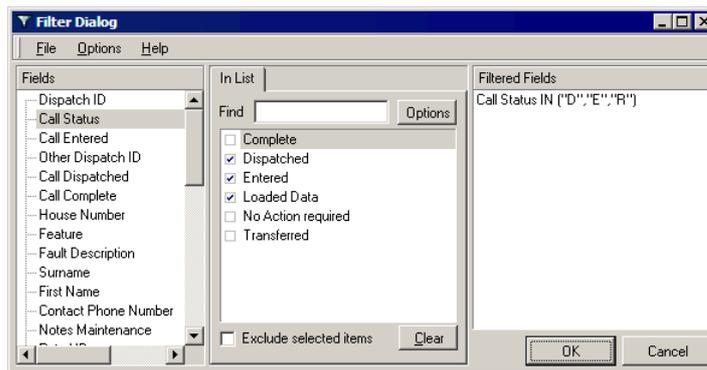
Defining Filters

Defining a database filter is simply a matter of selecting the appropriate Field for the information you wish to see, defining criteria for filtering in the middle panel, ensuring that the Filtered Fields panel reflects the correct criteria you've defined.
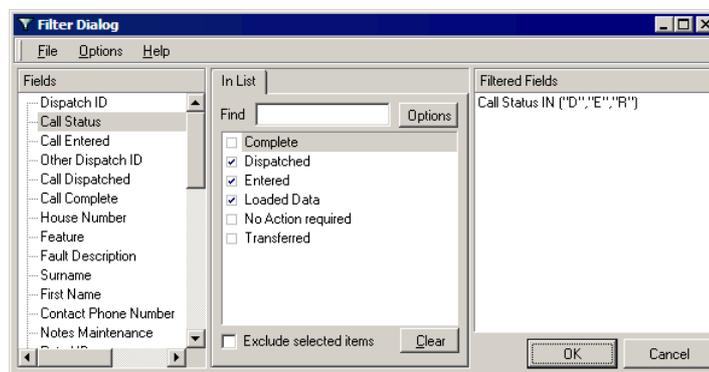
The example above shows only a single tab containing criteria for filtering by *In List*. Depending on which Field you select, you may also choose *By Value*, and *By Range*.

> **NOTE**: The filter fields are sorted in Logical Order by default. You can change this to Alphabetic Order by selecting **Options > Alphabetic Order** from the filter window menu.

Filtering By List

Some filtering conditions involve a fixed list of values for a field. The field you select in the Fields panel must be one that allows you to specify *In List* criteria.

Selecting a field will generate a list of lookup values for that field on the In List tab. You can choose one or more of the values from the list. If the condition you want doesn't match an item in the list, you can tell RAMM Traffic Signals what **not** to look for – by ticking **Exclude selected items**.

▸ **To Filter By List**

1   Select the Field you wish to work with.

2   Click the **In List** tab. The available lookups will be listed.

3   Tick each value you want to match. You can match as many values as you like. In the example below we've chosen to look at the Traffic Signals on three specific intersections on Aaronville Way Aarts Avenue. The Filtered Fields window will automatically load the relevant Road IDs.
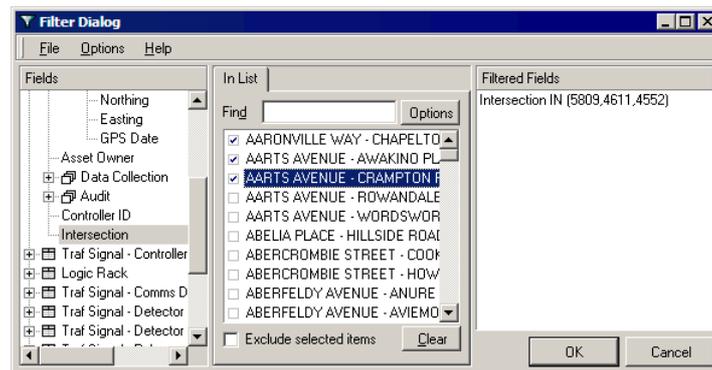
4   If you want to show all the details which do **not** match the values you selected from list, tick **Exclude selected items**.

5   Click **OK** to return to the window you launched the filter from (in this case, Traffic Signals) and view the results of your filtering.

Filtering By Range

Some filtering conditions involve a range of values. For these, you'll use the **By Range** tab. The field you select in the Fields panel must be one that allows you to specify *By Range* criteria.

▶ **To Filter By Range**

1   Select the field you wish to work with.

2   Click the **By Range** tab.

3   Select the relationship between the condition and the starting value of the range (**Greater Than**, or **Greater Than or Equal To**).

4   Type the value for the start of the range. To make the field blank, click the **Clear** button.

5   Select the relationship between the condition and the end value of the range (**Less Than**, or **Less Than or Equal To**).

6 Type the value for the end of the range. To make the field blank, click the **Clear** button.
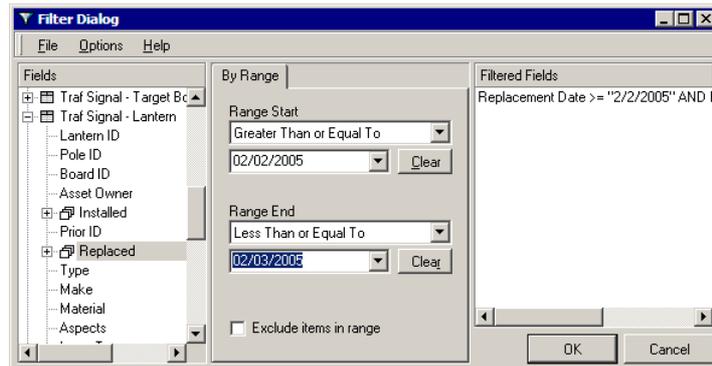
This example would filter to show all lanterns replaced within a given range. If you want to show all lanterns replaced **outside** the range, tick **Exclude items in range**.

7 Click **OK** to return to the window you launched the filter from and view the results of your filtering.

Filtering By Value

This filter option is for finding information by a straightforward one-to-one match with a single value. The field you select in the Fields panel must be one that allows you to specify *By Value* criteria.

▶ **To Filter By Value**

1 Select the field you wish to work with.

2 Select the **By Value** tab.

3   Select the relationship between the condition and the value. In the example below we've configured the filter to show Intersection ID 3939. **Equal To** is the most common Field Value.
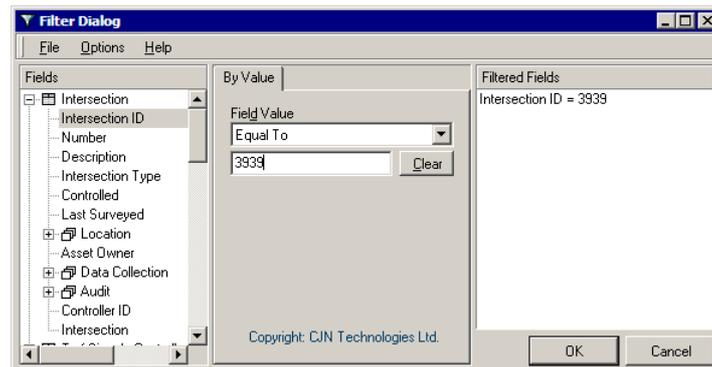
There are other options available in the Field Value drop-down list:

- If you're looking for a word or phrase that's buried somewhere in a text field, select **Partial Match at Beginning** or **Partial Match Anywhere**.

- Select **Is Null** to find all details where the filter criteria field is empty. This is useful, for example, if you're cleaning up your database and you want to find only records with missing information in that field.

- Select **Is not Null** to find all details where the filter criteria field is *not* empty. For example, you might use this to find road detail records whose Notes field has something entered in it.

4   Type the value (unless it's not needed). Click the **Clear** button to clear the filter criteria field.

5   Click **OK** to return to the window you launched the filter from and view the results of your filtering.

Saving Filters

Saving your filters is very important. It safeguards the work you've done configuring the filter, and you can also easily load the filters and apply them to your network with a few mouse clicks. See Loading Saved Filters (on page 103) for more information.

Saved filters can also be loaded, changed, and saved under a different name using the **Save As** menu option.

▶ **To Save a Filter**

1   Define the filter (see "Defining Filters" on page 99).

2   From the filter window, choose **File > Save As**. The first time you save a filter you will be required to give it a name. The Save As filter dialog box appears.
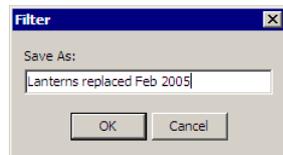
Type the name you want to use for the filter - make it something meaningful, so you'll know what it does when you're looking at a list of filters to load.

> **NOTE**:   The **Save** option is for saving edits to an existing filter.

3   Choose **OK** to save the filter. You're returned to the filter window.

Loading Saved Filters

You'll probably find yourself working with the same filter settings more than once, so RAMM Traffic Signals makes it easy to load any filter you've previously saved (see "Saving Filters" on page 103).

▶ **To Load a Saved Filter**

1   Launch the filter window (on page 98).

2   Clear any currently active filters if necessary by selecting **File > Clear**.

3   Choose **File > Load Filter > [Saved Filter]** from the menu.

4   The selected filter's settings are displayed. You can now edit them and save them under a different name if you wish.

5   Apply the filter's settings by clicking the **OK** button.

Clearing Filters

When you're working with filters, it's important to clear the currently applied filter if you don't want the existing settings added to your settings.

There are two places in RAMM Traffic Signals where you can clear filter settings - inside the function window you are using (the Dispatch Entry window or the Traffic Signals window) or inside the filter window itself.

▶ **To Clear Filters from the Dispatch Entry or Traffic Signals Window**

▪   Select **Options > Clear Filter**

-OR-

CTRL + L on your keyboard.

▶ **To Clear Filter Settings in the Filter Window**

▪   Select **File > Clear** from the menu.

If the saved filter is one you won't need again it can also be permanently deleted (see below).

Deleting Saved Filters

Every now and then, you'll want to get rid of a database filter that you've saved (see "Saving Filters" on page 103).

▶ **Deleting a Saved Filter**

1   Launch the filter window (on page 98).

2   Choose **File > Delete Filter** from the menu. The Delete Filter window appears.

3   Select the filter you want to delete, then click the **OK** button. The filter is deleted immediately and the filter window reappears.

Dispatches

This section describes actions related to dispatches.

A dispatch is created for each call taken or problem raised with regard to a fault on the traffic signal network. Each dispatch is entered under a contract name and allocated a unique system generated number. Details of the person reporting the problem, the date and time of the call, and a description of the problem are all logged.

IN THIS CHAPTER

Dispatch Entry Window

You can access the **Dispatch Entry** window directly from the RAMM Traffic Signals main window toolbar by clicking the Dispatch Entry window button

-OR-

Select **Actions > Dispatch Entry**.

When the Dispatch Entry window is open, if you are at the beginning of a contract and haven't entered any dispatches, you won't see any dispatch information. For an introduction to entering new dispatches, see **Dispatch Entry** (on page 76).

By default it shows you only the dispatches with a Call Status of *Entered, Dispatched* or *Loaded Data*, though you can use the Filter button to change what you see here. See Filters (on page 97) for more information.

- **Contract**. Since every dispatch is linked to a contract, that's what you see at the upper right hand of the Detail panel. If you have more than one contract active you'll be able to select a different contract to associate the dispatch with from

the **Contract** drop-down list. For more information, go to Setting Up a Contract (on page 65).

- **Dispatch ID**. The Dispatch ID is generated by RAMM Traffic Signals, and is the unique identifier of a job within a contract once it has been entered into RAMM Traffic Signals.

- **External ID**. This field allows you to enter a reference to another system - for example, the system of origin. Some councils have their own fault logging systems, dealing with problems not necessarily confined to Traffic Signals. References to these faults can be any combination of numbers or letters- for example, 267025.A106. You can then use the Filter to search for an External ID or ID range, return to this dispatch, view what work was done and how much was claimed on it.

  The external ID will be automatically entered if received via email.

- **Type**. This field is related to the **Panel 4 – Caller Details** field below, and refers to the person who reported the problem- for example a Routine Patrol, a member of the Public, or Other. See Setting Up Call Types (on page 71) for more information.

- **Fault**. This can be selected from a Standard list, or by clicking **Other**, a unique fault entry can be made. See Setting Up Fault Categories (on page 72) for more information.

NOTE: All coloured fields are mandatory.

Dispatch – General Tab

This section describes the panels on the General tab. Except for the Location Panel all other panels are optional. They will be visible depending on the RAMM Traffic Signals Options you've selected (see "RAMM Traffic Signals Options" on page 169) and the Call type.

- **Panel 1 – Intersection.** You can enter details about the Intersection in this field. A **Road** name and **Intersection** can be selected from the list. **Feature** relates to an obvious landmark in the vicinity, and you can also specify a **Feature Side**. Use **Notes** for any extra comments as above. All of this information is printed on the Dispatch Form (see "Dispatch - Printing Options" on page 120).

- **Panel 2 – Dispatch Groups.** This panel will be available to you if you have set Dispatch Groups 1 and 2 to Optional or Required when configuring RAMM Traffic Signals Options (on page 169). To configure the drop-down lists, see Maintaining Dispatch Groups (on page 191).

- **Panel 3 – [Caller Type] Details.** This panel corresponds to and expands on the call type which has been selected in the Dispatch Entry Window (on page 108). For example, if Patrols is selected as the call type, this panel will contain further options to enter patrol details, and you will be able to select a patrol from the list available. Alternatively, the call type may be classified as Caller or Other, in which case this panel will be labelled Caller Details or Other Details. If so, enter details about the caller or company representative responsible for the call. A caller might call back, and if the contact name(s) are entered correctly then this information can be filtered on. See Setting Up Call Types (on page 71) for more information.

> **TIP:**   Be consistent with the use of upper and lower case when entering
> names.

Dispatch – Maintenance Tab

The **Maintenance** tab of the Dispatch Entry window allows you to enter notes related
to completing a dispatch.
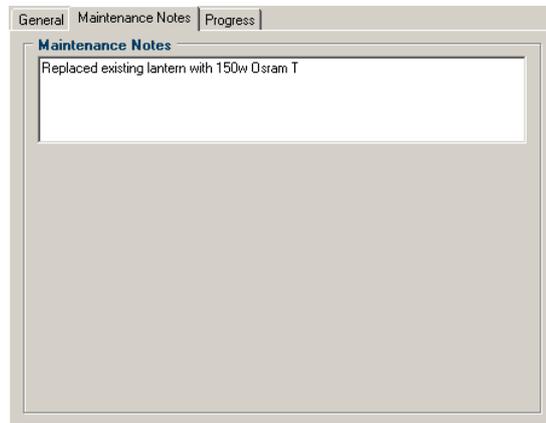
These notes can then be included on the Dispatch Summary Report (on page
221).

Dispatch – Progress Tab

Progress details about a job are displayed on the **Progress** tab of the Dispatch Entry window. In the example below we've also shown you the full window to demonstrate how the List panel indicates the presence of progress records.
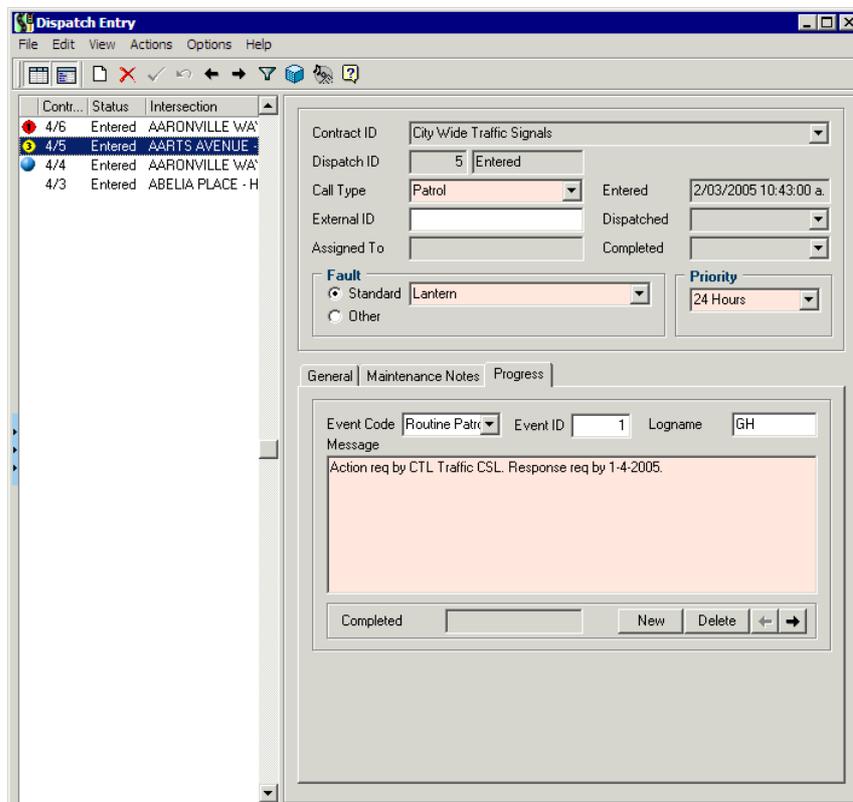
They consist of an optional user-defined Event Code, Event ID, and Council Code (which is available if this dispatch was sent from a Council/Call Centre). The message itself is the only field which is mandatory.

There are two ways in which progress records can be created. Both apply only to *Contractors*.

1   A progress record may be created during the automatic creation of a dispatch from data included in the email from the Council or their Call Centre - see Automatic Dispatches (on page 123).

The existence and status of the record will be indicated by an icon in the List panel.

- ▪ 🌐 Unread progress record

- ▪ 🌐 Read progress record

- ▪ 🌐 Unread emergency progress record

- ▪ 🌐 Read emergency progress record

If the priority level on the Dispatch is changed, the icon will change to reflect this (for example, the highlighted dispatch for Aarts Avenue in the example above).

2 You may enter progress records yourself on this tab by clicking the **New** button at the bottom right of the tab. These records may be for your own information (as a 'progress note'), or for sending progress messages back to the Council (if the messages are for dispatches that were originally created automatically from emails).

If you wish to send progress information, you must click the **Send Email** box after entering the message (see below). This way the Council can be informed that the problem has been passed on to the electricity supplier or that you're waiting for repair / replacement parts.
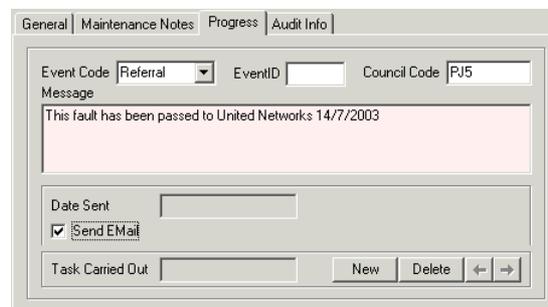
~q check whether send email option is still available

Dispatch – Audit Info Tab

The **Audit Info** tab of the Dispatch Entry window Detail panel will be shown only if you have enabled sending and receiving by email.
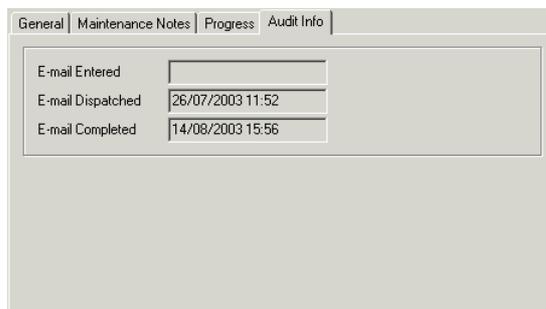
The information you see is generated from automatic emails, and enabled by the following selections on the Email tab in Email Options window:
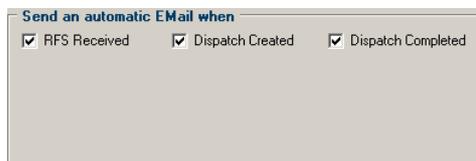
See Email Options (on page 124).

Any or either of these options can be selected.

In each case, the relevant date (of entry, dispatch and/or completion) will be shown on the Audit Info tab.

Dispatch – Actions

Select **Actions** from the Dispatch Entry window menu to access a number of dispatch related tasks.

Actions for dispatches that have a Call Status of Entered or Dispatched:

- **Complete dispatch** (see "Completing Dispatches" on page 82). You'll use this option to complete the dispatch and enter a claim line when all required maintenance work has been done.

- **Transfer Dispatch** (on page 116). This option is used if more than one call is logged for the same fault.

- **No Further Action** (on page 117). Occasionally, you may wish to select this option to manually close a dispatch if no further action on it is required.

Claims and Traffic signal related actions:

- **Claim Lines** (see "Claims" on page 159). This option enables you to manually enter a Claim Line if there are existing claim lines for the dispatch- these will be shown when this window opens.

  > **NOTE**:   Claim Lines that have appeared on a claim cannot be pre-dated or closed.

- **Traffic Signals** (on page 133). This option takes you into the Traffic Signals window. It applies a filter to the dispatch data, using the house number and roadnames from the currently selected dispatch, and generates a list for all the assets in the vicinity. This option is available for all dispatches except those with a status of *Loaded Data*.

The actions are available only to contractors, and relate to automatic dispatches (on page 123).

- **Email**.

- **Email Options** (on page 124). You can set up the various options for emailing dispatches here.

- **Load Dispatches / Events**.

- **Dispatch Auto Process**.

- **Enter Loaded Dispatch**.

Other actions on this menu are reporting and analysis related.

- **Dispatch Analysis**. This brings up the Decision Cube (on page 203) where standard groupings (for example *Call Type, Fault*) are available for obtaining performance statistics. An overview dispatch analysis is also available by selecting **Reporting > Contract Management > Dispatch Analysis** from the main RAMM Traffic Signals window.

- **Printing Dispatches** (see "Dispatch - Printing Options" on page 120).

~q last option is Duplicate External ID Report - does this need to be documented?

Transfer Dispatch

When two calls are received about the same fault, this option allows the calls to be linked so that only one dispatch printout is produced.

It's important that all calls are logged in the database - it takes the same time to handle a call even if it is about a known problem. This option is designed to allow for this and avoid confusing dispatch crews with duplicate dispatch forms.

> **CAUTION**:   Don't transfer a dispatch that already has work recorded against it. Always transfer a blank dispatch to the main dispatch. Also, completed dispatches should not be transferred - link the new dispatch to the completed one.

▸ **How To Transfer A Dispatch**

1   In the Dispatch Entry window (on page 108), select the dispatch you wish to transfer.

2   Select **Actions > Transfer Dispatch** to bring up a list of all dispatches.
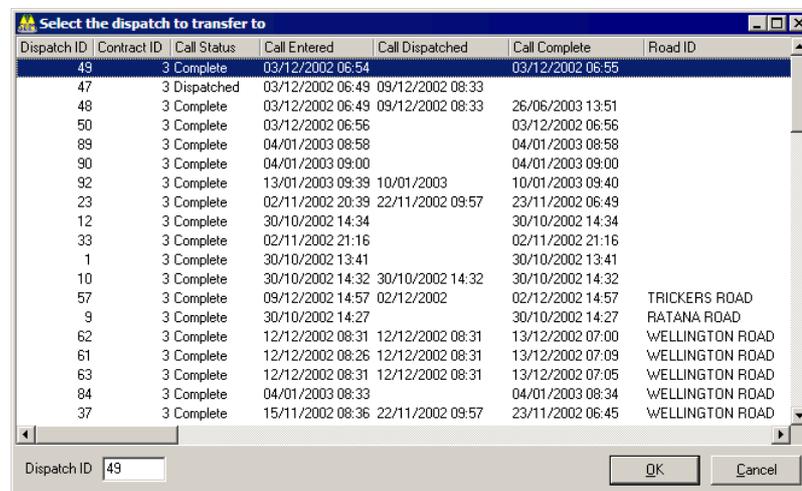
> **NOTE**:   If the list is too large, you can limit it to 30 days by selecting **Options > Limit Transfer List (30 days)** from the Dispatch Entry window menu.

3   You can now select the dispatch to transfer to (the dispatch that duplicates the one you've currently selected in the Dispatch Entry window List panel). Click **OK**.

4 RAMM Traffic Signals will show you a confirmation screen identifying the two respective dispatch numbers. Click **OK** to continue.

5 The dispatch that was transferred will now show as *Transferred* in the List panel. (If you do not see it, you need to select **Options > Clear Filter** to clear the default filter and view all dispatches). When viewing the dispatch that has been transferred, you can view the other dispatch by clicking the **Transferred To** button in the upper right of the Detail panel.

No Further Action

Occasionally situations arise where even though a problem has been reported and a dispatch entered, no further action is required.

In the Dispatch Entry window, select **Actions > No Further Action**.

The user is prompted to confirm this selection:

The call will remain logged in the system, but as no work was carried out and no claims were made, no action was taken. The status will be shown as *No Action Required*, and the *Completed* date will be set to the current date.

Change Contract

You can change the contract for a particular dispatch if necessary. This is only applicable if there is more than one open contract in the database.

The dispatch will be given a new dispatch ID.

▶ **How To Change The Contract**

1   Select the dispatch.

2   Select **Actions > Change Contract** from the Dispatch Entry window menu.
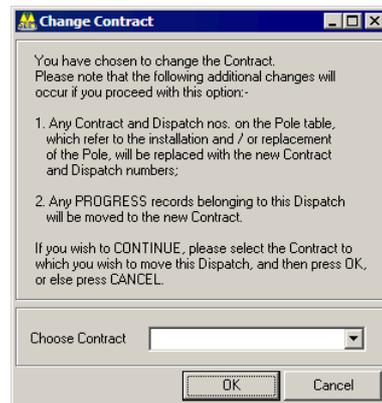
3   Choose the contract to switch to from the drop-down list.

4   RAMM Traffic Signals will ask for confirmation for this action, and return you to the Dispatch Entry window once it is completed.

Dispatch – Options

Select **Options** on the Dispatch Entry window menu for a number of options for sorting and viewing dispatches. The Dispatch Entry window is filtered by default – see Filters (on page 97) for more information and advanced options for filters.

▪ **Show Unread Progress.** Selecting this option includes dispatches which have unread progress records, in addition to the filtered items, in the List panel. See Dispatch – Progress tab (on page 112) for more information.

▪ **Show Contract No. In List.** This allows you to see the contract number alongside the dispatch number in the List panel. This is useful if the dispatches in the list

belong to more than one contract. It's shown in the List panel in the format *Contract ID/Dispatch ID*.

- **Show Intersection In List**. This option, if selected, will show the Intersection and Road name in the List panel.

- **Limit Transfer List (30 days)**. This option is to limit the list of dispatches shown when choosing to transfer a dispatch. Selecting it will restrict the list to those that were entered within the last 30 days.

- **Limit Patrol List (3 months)**. This option limits the list of patrols available on the Detail panel when Patrol has been selected as the call type. It shows only those patrols that were begun within the last three months.

These options allow you to personalise the way RAMM Traffic Signals works for you. When you leave the dispatch window, your current settings are saved so they can be reapplied when you next open the Dispatch Entry window. This saves you having to set up everything again.

Dispatch – Printing Options

This section discusses the various options on the **Print Dispatches** window. For a quick introduction to printing dispatches for your maintenance crew, see **Printing Dispatches** (on page 79).

- **New.** Prints all those dispatches which have been entered into the system, and have a status of Entered. If the **Update printed/exported dispatch status to 'Dispatched'** option is ticked (default), the call status of these dispatches, once printed, will show as *Dispatched*. The dispatch forms can now be handed to the crew so that the repairs can be done.

- **Completed.** Prints those dispatches with a status of Completed between the dates selected. By default RAMM Traffic Signals will show a date range for a complete month.

You can also further specify a response time (in days) taken to complete a dispatch, or all completed but unclaimed dispatches.

- **Outstanding.** Prints those dispatches that have previously been printed but have not been completed. This option also brings up a date range, as above.

  Outstanding dispatches will be printed with the word COPY on them to indicate that they have been printed more than once.

- **All.** Prints all dispatches for the chosen contract within an entered period (date range shows as above).

- **List.** Prints those dispatches that are shown on the left hand display panel as a result of the chosen filter.

- **Selected**. Prints only the current dispatch. While in the Display Entry window CTRL + B has the same result.

- **Claims**. Prints those dispatches associated with a specific claim number. Claim lines can only be printed for a completed dispatches. Selecting this option brings up a drop-down list from which you can select a Claim Header.

- **Loaded Data**. Prints those dispatches which have been created automatically from emails, and still have a status of Loaded Data. A date range is available for this options also.

NOTE: When entering a date range, ensure that the start date is prior to the end date.

Report Formats

Two report formats are available :

- **Full Report** – one dispatch per page, giving asset specifications, giving poles located up to 5 house numbers away on either side of the entered location.

- **Summary** – multiple dispatches per page, giving a brief description only. Further options here include the printing of *Claim Lines* and any *Notes* pertaining to the dispatch.

Either or both may be selected, depending on which initial selections have been made.

Order By
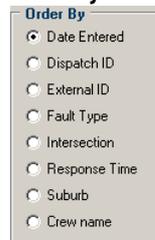
This box allows you to select the printing order according to the options listed.

Automatic Dispatches

Receiving Emails and Converting them into Dispatches

RAMM Traffic Signals can interface directly with a service call centre, and dispatch information can be sent via e-mail between the two systems in a predetermined format. This section covers the process of setting up RAMM Traffic Signals for this purpose, and the options available (see "Email Layout Types" on page 127).

Once the e-mail has been successfully received and converted a dispatch is created. It is then added to the list of dispatches in the Dispatch Entry window list panel with the status *Loaded Data* (see "Receiving Loaded Dispatches" on page 130) to distinguish it from manually entered dispatches.

Error Correction

In the event of incorrect or incomplete data being sent in the e-mail, you can set up defaults to override these errors. In the case of more serious errors, however, the email data will not be converted. You'll be able to save and / or print out the email containing the errors and process them manually.

Flexibility of Operation

You have a certain amount of flexibility with regard to how the system is used. For example, once the basic options have been set up, it can be set to be completely automatic (you don't need to initiate email connections or be involved in converting the data if it is valid). Alternatively, you may prefer to view the dispatch after the initial processing has been done to edit or add data before the dispatch is added to the database. You can also choose if and when the email connection is established to retrieve the emails.

Creating Dispatches From Other Sources

A further option enables you to read a file into the RAMM Traffic Signals system even if it may have come from another source (for example from a Patrol), as long as it matches one of the specified email layout types.

Dispatch Related Events

You can enter information about the progress of a job in the relevant window on the dispatch, and have this automatically emailed to the Council. Communications of this nature are named *events*, and can have unique IDs. See Dispatch - Progress tab (on page 112). The Council can also send additional information about the job to you via events- you'll be notified on the Dispatch Entry window that there are

new events to view. Events cannot change the status of a dispatch (for example, re-open a completed dispatch). All events are stored in the *progress* table.

Email Options

This section describes how to set up RAMM Traffic Signals to receive emails, and what defaults apply to the dispatches generated from those emails.
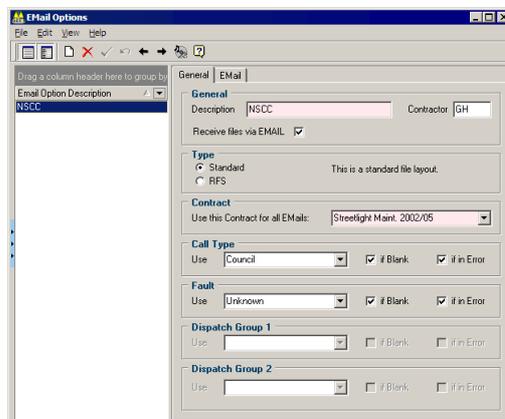
▸ **How to Send and Receive Files via Email**

1   From the main RAMM Traffic Signals window, select **Actions > Email Options**

-OR-

In the Dispatch Entry window, select **Actions > Email Options**.

2   Set the layout **Type**. The **Standard** layout is the default. The **RFS** layout was designed specifically to meet the needs of Waitakere City Council. For details of how the emails should report the information, see **Email Layout Types** below.

3   Tick **Receive files via EMAIL** to activate this facility. If you don't tick this option, you will only be able to load dispatches and progress records from text files which have been saved on your computer. See Automatic Dispatches (on page 123) for a full description of both of these options.

4   In the Description field, enter a descriptive name for the EMail Options record, followed by an optional three character code identifying the contractor who will be using this facility.

5   Select the **Contract** that the emails will be linked with from the drop-down list.

6   When the emails are processed into dispatches, there are some fields that are required information. The fields in the panels below the Contract panel are to

set the defaults for this information, and under which conditions they will apply.

You can select the **Call Type** and **Fault**. Ticking **If Blank** will enter the information only if the corresponding field in the email is blank, and ticking **If In Error** will enter the information only if the corresponding field in the email is incorrect.

If the relevant **Required** switches have been set on the Optional Groups tab of the RAMM Traffic Signals Options window (see "Options - Optional Groups" on page 171), the panels below will also be activated, and you have the same options for information and condition settings on these panels too.

7   **Connection Settings**. The **Email** tab contains the settings for the type of connection you have to email and the Internet, and allow you to enter information such as passwords, mail server addresses etc. You may need to talk to your Network Administrator (if you're using a Local Area Network or LAN) or your Internet Service Provider (if you're using a stand-alone computer that you connect to the Internet for email and web services using a modem). You can also contact us (see "Contacting CJN Technologies Ltd" on page 23) if you need help on these settings.
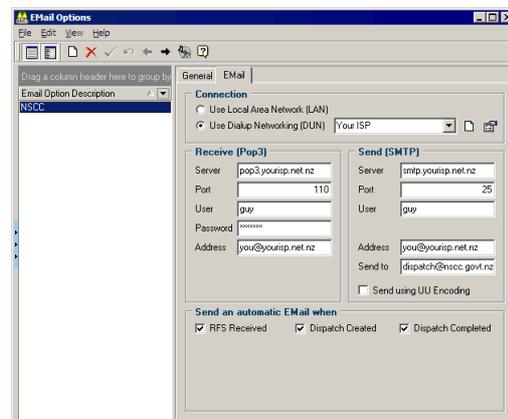
Here's a brief description of the sections you see on the Email tab in the image above:

The *Connection* section is where you choose how you connect to the Internet.

- **Use Local Area Network (LAN)**. Select this option if your computer is on an office network.

- **Use Dialup Networking (DUN)**. Select this option if you use a modem to connect to email and the Internet via an Internet Service Provider (ISP). You should already have a connection available for selection from the drop-down list - if not, you will need to get the relevant information below from your ISP and set it up by clicking the **Add Dialup Networking Connection** button.

The following sections contain settings that you need if you selected Use Dialup Networking (DUN).

- Receive (POP3) and Send (SMTP) **Server** settings. Typically they are *pop3.yourisp.net.nz* and *smtp.yourisp.net.nz* - sometimes both receive and send servers have the same address, such as *mail.yourisp.net.nz*.

- **Port**. It's very rarely that the port settings change from 110 to receive and 25 to send - don't change these unless specifically instructed.

- **User**. You will definitely need a username to receive email - in rare cases you also require a username to send email. Enter the username/s here, and remember they are usually case sensitive.

- **Password**. Enter your password - it should also be case sensitive.

- Receive **Address**. This is your email address for receiving email dispatches from the Council.

- Send **Address**. This is optional, and is simply an alternative email address for replies to the automatic emails you send (see below). The **Send to** field is very important - here you'll enter the email address at the Council that the automatic emails (see below) will go to.

- The option to **Send using UU Encoding** is a specific email format. Don't select this unless specifically instructed.

The panel at the bottom chooses which functions in RAMM Traffic Signals will *Send an automatic Email when* they are selected. You should consult the Council on when they would like to receive automatic emails from your system.

Email Layout Types

This topic describes the fields needed for the Standard and RFS layout types to be able to receive emailed dispatches.

You can use any pipe (|) delimited text file.

Standard Layout

Most Councils use the standard layout for email dispatches. The fields you can include are listed below- the only mandatory fields are *Road Name* and *Notes*.

Field	Remarks / Instructions
Contract ID	
Call Type	
Fault Type	
External ID	
Priority	
House No.	
Road Name	Mandatory Field
Caller first name	
Caller surname	
Caller phone no.	
Feature side	
Feature description	
Likely Pole ID	
Dispatch Group 1	
Dispatch Group 2	
Notes	Mandatory Field

RFS Layout

The RFS layout is much more detailed. It is currently used only by the Waitakere Council, and has the ability to interface directly with their Call Centre. Fields are as below:

Field	Remarks / Instructions
Rfs Number	Prefixed number with "RFS "
Transmitted	Date and Time, format- dd/mm/yyyy 99:99
RFS Type	For example- L01
Rfs Type Description	
RFS Received	Date and Time, format- dd/mm/yyyy 99:99
Action required by	Officer Code
Action required by	Officer Name
Priority	*Normal* or *Emergency* only
Property code	
Property Owner's name	
Property address1	For example- House number
Property address2	For example- Street name
Property address3	For example- Suburb
Property address4	For example- City
Complainant code	
Complainant's first name	
Complainant's surname	
Complainants address1	For example- House number
Complainants address2	For example- Street name

Complainants address3	For example- Suburb
Complainants address4	For example- City
Complainants ph nos: pvt	
Complainants ph nos: bus	
Complainants ph nos: mobile	
Enquiry details	RFS details, 1 - 80 Char
Enquiry details	RFS details, 1 - 80 Char
Enquiry details	RFS details, 1 - 80 Char
Response by	Date and Time, format- dd/mm/yyyy 99:99
Completion by	Date and Time, format- dd/mm/yyyy 99:99
Latest event number	
Latest event code	For example- RP, CC
Latest event description: line 1	Max 80 Characters
Latest event description: line 2	Max 80 Characters
Latest event description: line 3	Max 80 Characters
Latest event description: line 4	Max 80 Characters
Latest event description: line 5	Max 80 Characters
Latest event description: line 6	Max 80 Characters
Latest event description: line 7	Max 80 Characters

Latest event description: line 8	Max 80 Characters
Handling Officer Code	For example- CC7

Receiving Loaded Dispatches

This section describes the process of receiving emailed dispatches in the RAMM Traffic Signals Dispatch Entry window.

> NOTE: For information on setting up and activating the receiving of emailed dispatches see Email Options (on page 124). For information on the formats you should use to create dispatches from emails, see Email Layout types (on page 127).

The frequency of the emails and options for automatic sending and receiving can be configured in the Dispatch Entry window from the **Actions > Email** menu.

- **Auto Send/Receive**. In the image above this is currently inactive - clicking on this option will show a tick next to the option to indicate its status. When this is ticked, sending and receiving email will occur automatically at preselected intervals.

- **Change Interval.** The interval for automatic sending and receiving is originally set at 10 minutes, but can be changed.

- **Send/Receive now.** The email check can also be initiated manually as required by selecting **Send/Receive Now**. This option is available only if Auto Send/Receive is turned off.

- **View Import Errors.** If the format of the email is incorrect or data corruption occurs for any reason, the resulting errors can be viewed here. If any errors are found in the incoming data, an error message will explain that errors have been found. You can correct the errors using the correction screen.
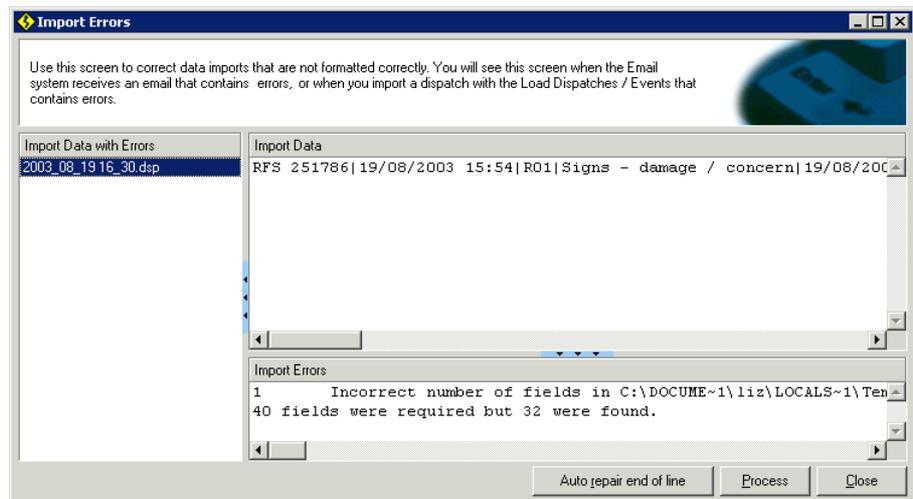
Once they are corrected, the emails will be reprocessed.

> **NOTE:** If errors are found in incoming data, a dispatch will not be created for this data until it has been corrected and successfully input.

When the email check is finished and new dispatches have been received, the Dispatch Update button [No Dispatch Updates] on the Dispatch Entry window toolbar will alert the user by showing the caption *Refresh Dispatches* in red. When this button is pressed, the window will be updated to show the new dispatches which have been received. See RAMM Traffic Signals Toolbar Buttons (on page 51) for more information.

Confirming the Intersection on Loaded Dispatches

When an email or text file has been successfully received and processed, a dispatch will be produced and will appear in the Dispatch Entry window List panel.

This type of dispatch is entered into RAMM Traffic Signals with a status of *Loaded Data*, to distinguish it from a manually entered dispatch.

When RAMM Traffic Signals receives a Loaded Dispatch it will attempt to identify the Intersection from the emailed description. Where it is successful, this information will show in the dispatch.

If the Intersection field is blank, however, this means that it could not be determined. This could be because the intersection was spelt wrong, is not yet in the database, or that there were too many intersections to choose from.

At this point, therefore, it's important that you select the correct intersection from the list manually and save the dispatch. This will give the maintenance crew a more precise location, and also help to identify the job more accurately within RAMM.

Changing Call Status On Loaded Dispatches

Once you've viewed the data entered into RAMM Traffic Signals via the automatic process, and you're satisfied that everything is correct, you should change the status of the dispatch from *Loaded Data* to *Entered*.

To do this select the dispatch in the List panel in the Dispatch Entry window, and then select **Actions > Enter Loaded Dispatch** from the menu

-OR-

CTRL+E on your keyboard.

You can also configure RAMM Traffic Signals to do this automatically by selecting **Actions > Dispatch Auto Process**, in which case all automatic dispatches will be created with a status of *Entered* directly.

Traffic Signals

This section describes the Traffic Signals window and the many actions you can perform within it for Traffic Signal asset maintenance.

IN THIS CHAPTER

Traffic Signals Window

On the main RAMM Traffic Signals window, click the Traffic Signals launch button ⧆.

At this point no information has been asked for, so the window will open empty.

NOTE: This section is intended to cover working with existing assets and maintaining them, though you can add and delete assets if required. If you want to set up Traffic Signals assets from scratch, the best way is to use the Traffic Signals Insert Wizard (on page 89).

You'll need to manually define a filter to bring up the intersections you need and begin working with Traffic Signals.

> **NOTE**:   The same window will show different information if launched from the Dispatch Entry window **Actions** menu. When you do so, a filter relevant to the dispatch you're processing will be applied automatically- this is to help you locate the assets described in your dispatch and work with them.

Click the **Filter** ▽ button on the toolbar, define and apply your filter. See Filters (on page 97) for more information.

Traffic Signals Window Detail Panel Tabs

Once you've done so, the Traffic Signals window will show you the individual Traffic Signals and attached assets in the List panel on the left in a tree hierarchy. The details for the selected asset on the various tabs of the Detail panel.

For an idea of how these assets are related to each other in a 'real-world' intersection situation, see Traffic Signals - Components (on page 39).

Maintaining Traffic Signal Asset Details

To add or edit the selection available from the various drop-down lists, read the Maintenance section (see "Maintenance" on page 175).

> **NOTE**:   For more information on the **Condition** and **Assessment** tabs available for each asset in the Detail panel, see Condition and Assessment in RAMM Traffic Signals (on page 197).
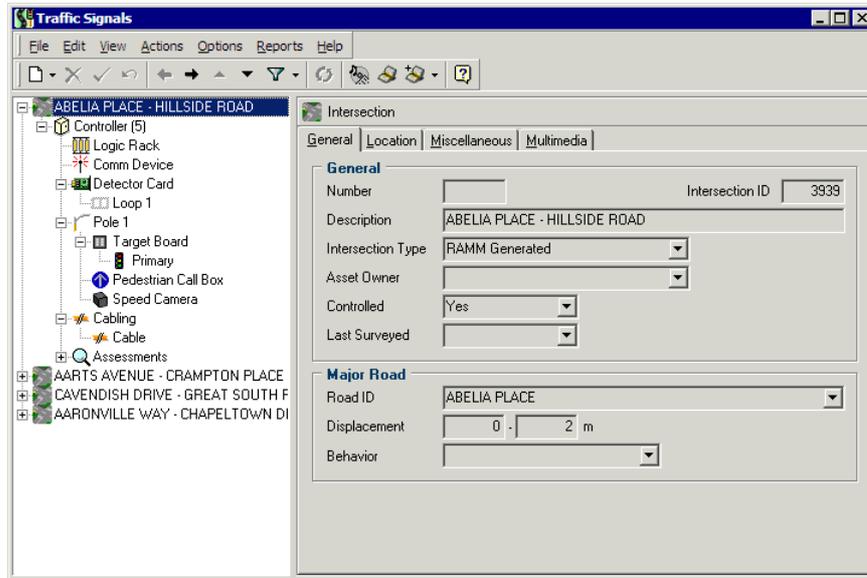
Traffic Signals Window Controls

The **View** menu contains a number of options to find the asset you want as quickly as possible. **Auto Expand** is a key function – it will automatically expand the assets in the List panel. **Auto Collapse** is similar – as you select a different asset, it will automatically collapse the previously expanded items.

Each tab contains information about the assets at the current location. You can navigate through the assets either by using the List panel to the left or the **Next Record** ➜ and **Previous Record** ← buttons on the toolbar (see "RAMM Traffic Signals Toolbar Buttons" on page 51).

Traffic Signals – Intersection

Selecting the intersection in the List panel of the Traffic Signals window brings up its details in the Detail panel on the right.
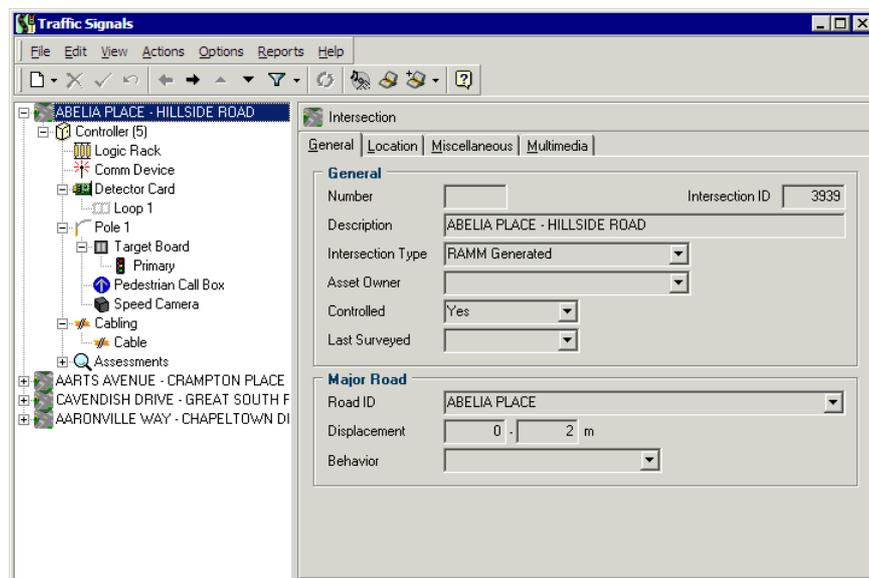
Select the tab you require to view the intersection details as required. Unlike the other items in the tree view, most details for an intersection in this window are view-only.

- **General.** This tab is essentially a summary of the information on the other tabs, and an indication of the status of the intersection - you would need to maintain this information on other tabs or in a different part of RAMM Traffic Signals. For example, the **Controlled** field shows its control status. If you need to change the intersection's control status you need to do so from the Intersections window (see "Working with Intersections" on page 42).

- **Location.** This tab shows the Road details.

- **Miscellaneous.** This tab has Map Coordinate and Data Collection details.

- **Multimedia.** This tab shows attached multimedia files such as images, videos and data files.

~q pl recommend names etc to populate in blank fields as necessary, here and in topics below

Traffic Signals – Controller

The Controller is the base unit for a Traffic Signal, and all the other assets are attached to it. The tree view in the List panel shows how the assets are attached, and their various dependencies. See Traffic Signal - Components (see "Traffic Signals - Components" on page 39) for more information.

You'll notice that the **Replace Asset** button ⟳ is activated as soon as an asset is selected in the List panel. As assets are replaced, history is generated. By default, this history is not shown- you can select **Options > Show Replaced Items** if you'd like the history to be visible.

Select **Controller** in the Traffic Signals window List panel to bring up its details.
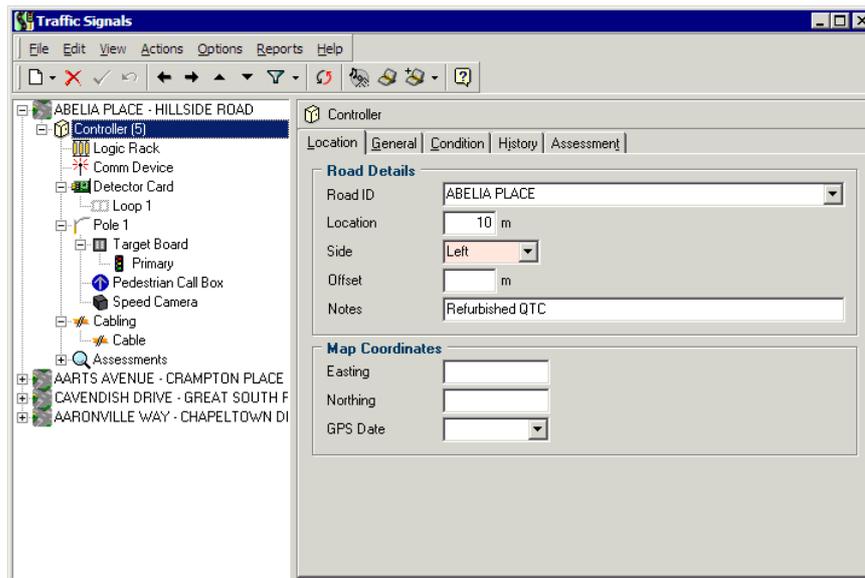
Select the tab you require to view and maintain the controller details as required.

- **Location.** For basic location information: Road ID, Location, Side, Offset, and Map Coordinates.

- **General.** A summary of asset owner, identification and device specification information, including power supply information and ICP Numbers (see "Maintaining Power Supply and Installation Information" on page 187). **Preemption** status is a required field.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Logic Rack

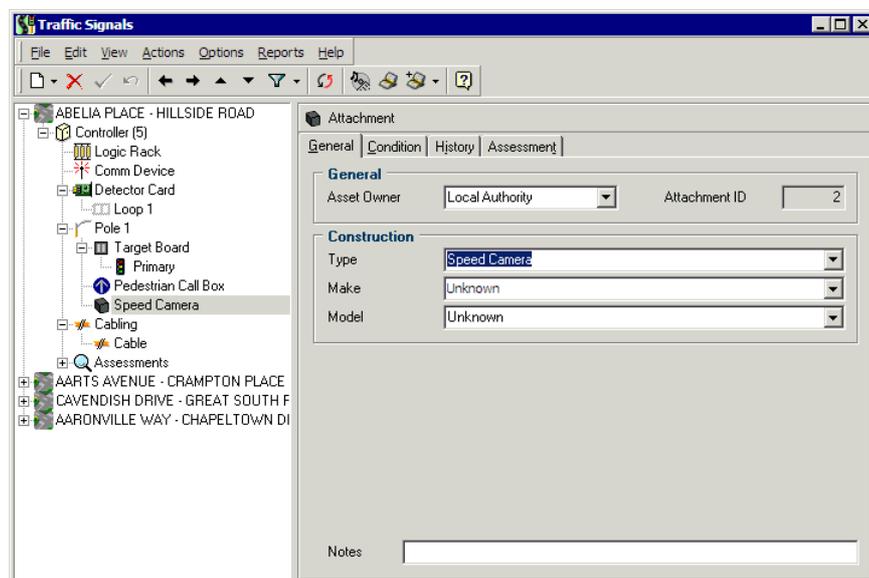The Logic Rack is the "brain" of the the Traffic Signal.
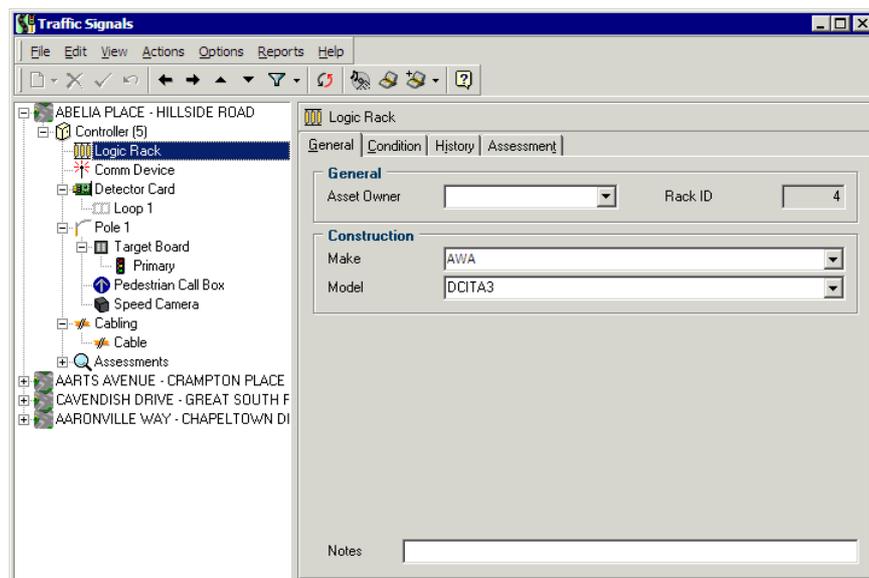
Select the tab you require to view and maintain the Logic Rack details as required.

- **General.** A summary of asset owner, identification and device specification information.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Communications Device

This device can be a modem, multiplexor or another type of communication device to remotely link the Traffic Signal with the central control unit.
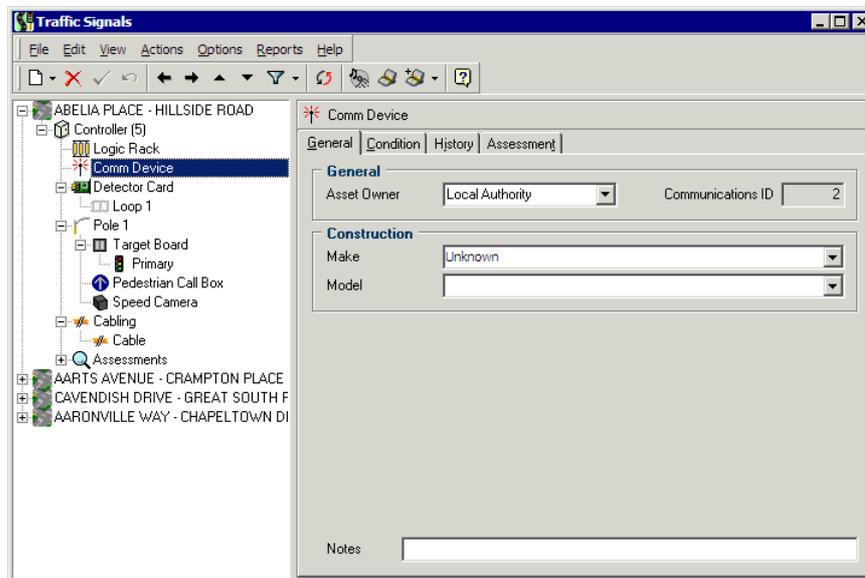
Select the tab you require to view and maintain the Communications Device details as required.

- **General.** A summary of asset owner, identification and device specification information.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Detector Card

The Detector Card works with the Loop to alert the Logic Rack to the presence of a vehicle.
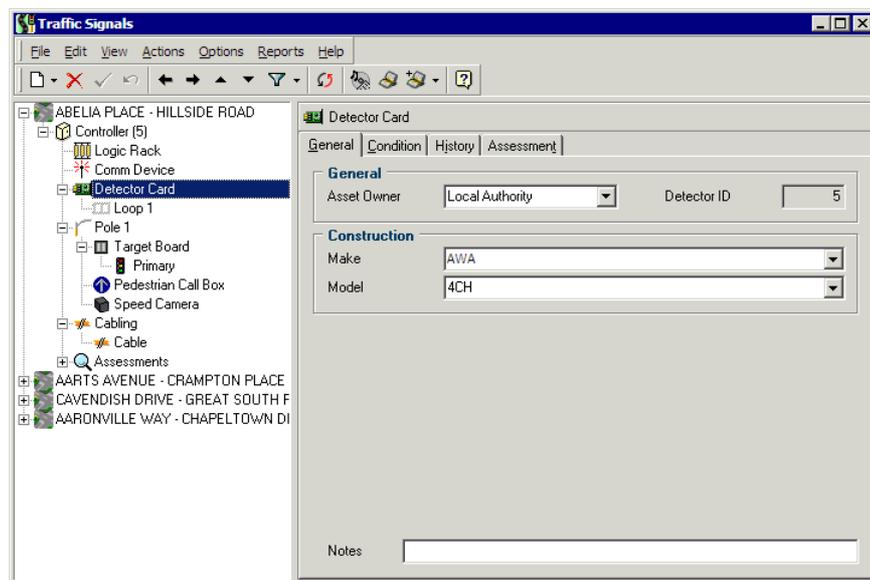
Select the tab you require to view and maintain the Detector Card details as required.

- **General.** A summary of asset owner, identification and device specification information.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Loop

The Loop senses the presence of a vehicle. Since it is installed into the road surface, location details are important. A Detector can have more than one Loop, so numbering them is also required.
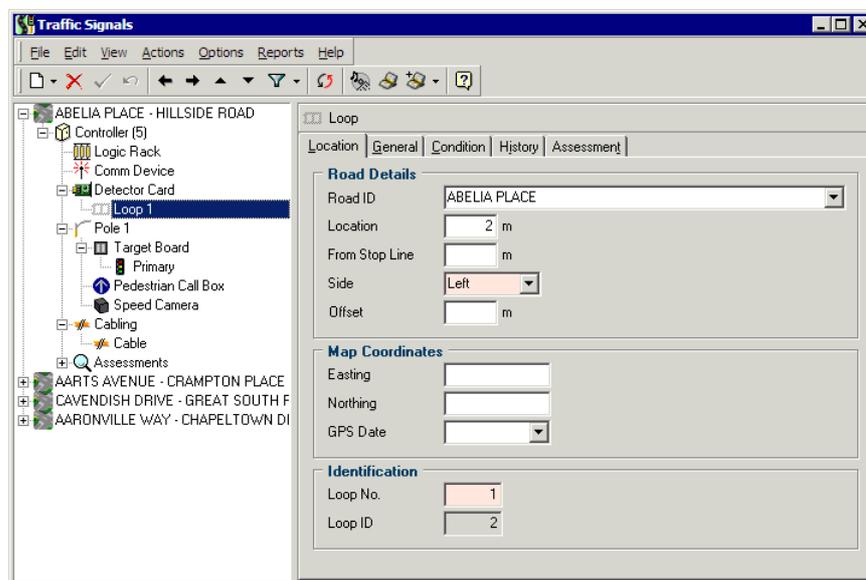
Select the tab you require to view and maintain the Loop details as required.

- **Location.** For location information: Road ID, Location, Side, Offset, and Map Coordinates. **Side** and **Loop** number are required fields.

- **General.** A summary of asset owner, identification and device specification information.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Pole

The Pole, in the context of the RAMM Traffic Signals software, is attached to Controller. A Controller can control more than one Pole.
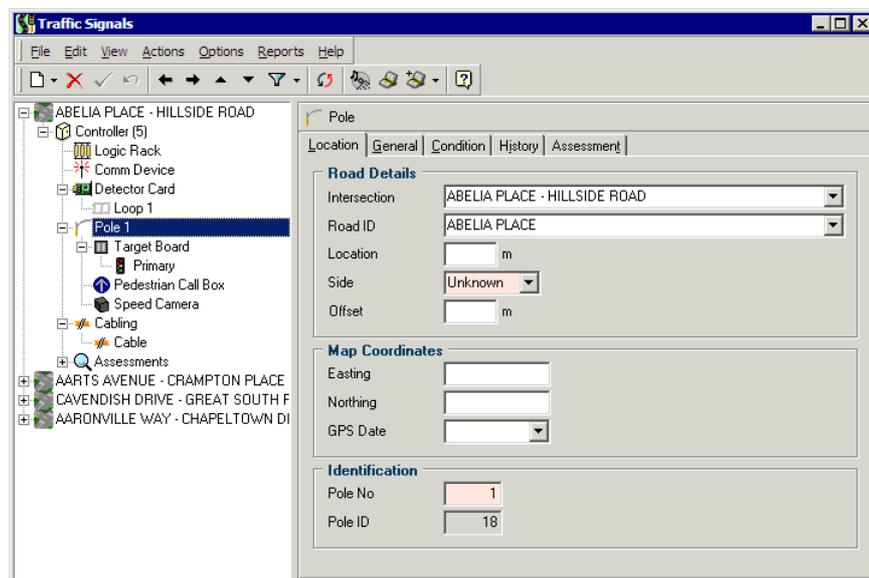
Select the tab you require to view and maintain the Pole details.

- **Location.** For location information: Road ID, Location, Side, Offset, and Map Coordinates. **Side** and **Pole** number are required fields.

- **General.** A summary of asset owner, identification and device specification information including the **Pole Mount** (see "Maintaining Pole Mounting and Type" on page 183).

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Target Board

The Target Board is where the Lantern is mounted.
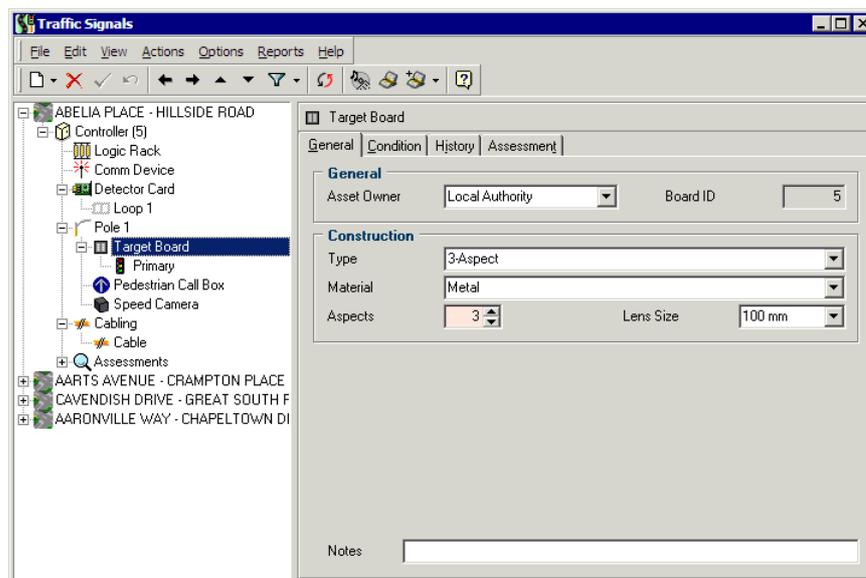
Select the tab you require to view and maintain the Target Board details.

- **General.** A summary of asset owner, identification and device specification information. The only required field is the **Aspect –** this will correspond to the Lantern below.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Lantern

The Lantern appears in the asset List panel as a Primary, Secondary, Tertiary Lantern, depending on its position in the Intersection. See Traffic Signals - Concepts (on page 36).
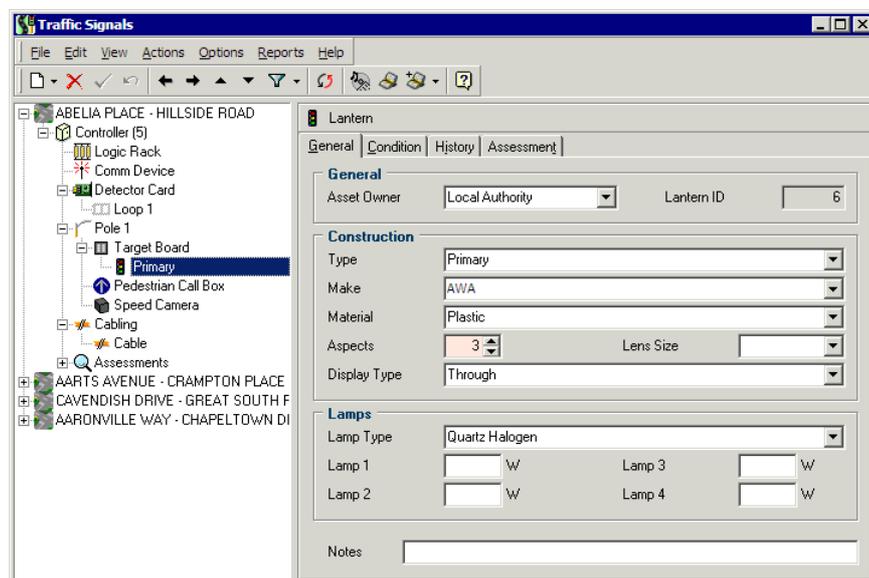
Select the tab you require to view and maintain the Lantern details.

- **General.** A summary of asset owner, identification and device specification information. The only required field is the **Aspect** in the *Construction* section. You can also specify the Type and Wattage of each Lamp.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Pedestrian Call Box

The Pedestrian Call box is attached to the Pole in the Traffic Signals window List panel.
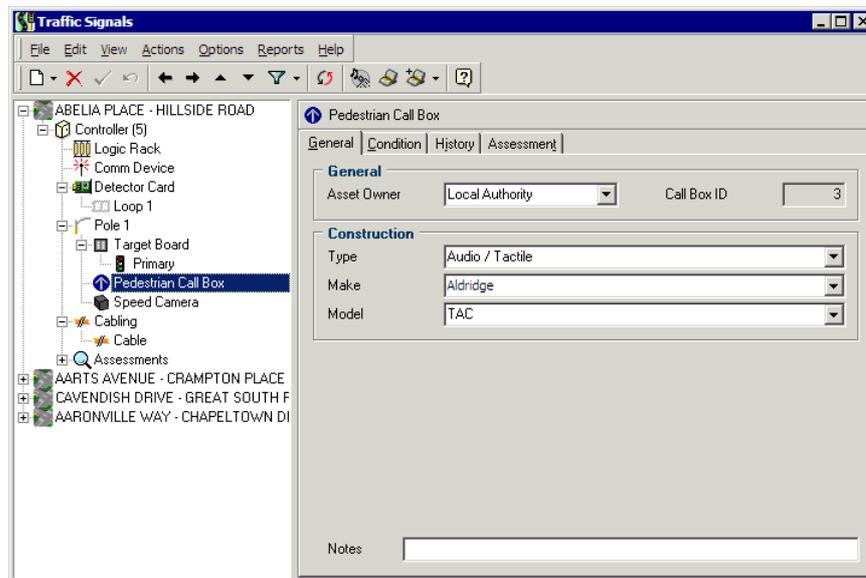
Select the tab you require to view and maintain the Lantern details.

- **General.** A summary of asset owner, identification and device specification information. The only required field is the **Aspect** in the *Construction* section. You can also specify the Type and Wattage of each Lamp.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Attachment

The Traffic Signals system also records Attachments to the Mast Arm (see "Traffic Signals - Components" on page 39), for example a Speed Camera, Flag, Red Light Camera, or Variable Message Sign.

Select the tab you require to view and maintain the Attachment details.

- **General.** A summary of asset owner, identification and construction information including the type of attachment (see "Maintaining Attachment Types" on page 185).

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Traffic Signals – Cabling

This window is to maintain Cabling and associated Ducting.
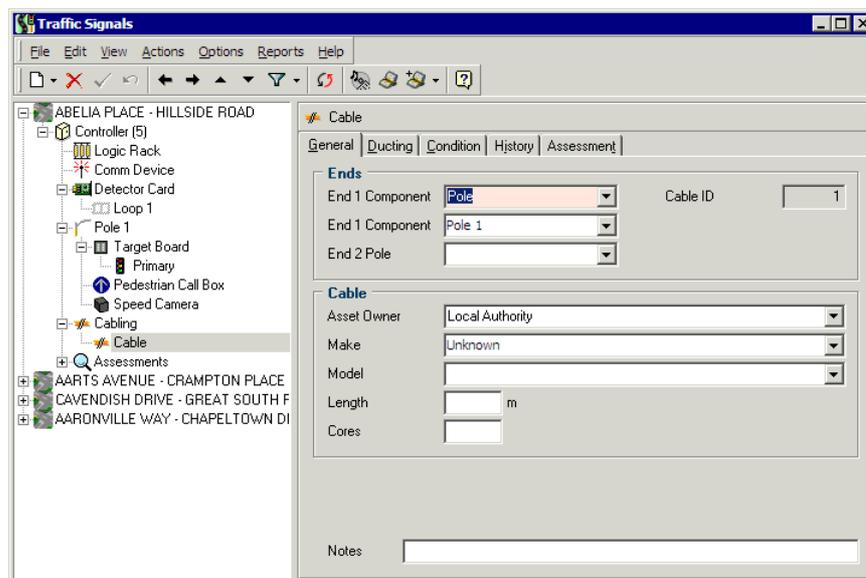
Select the tab you require to view and maintain the Attachment details.

- **General.** In addition to the asset owner and identification information, this tab also has fields to enable you to specify cable length, cores and cable ends. The **End 1 Component** is a required field.

- **Ducting.** This tab holds information on the ducting and protection for each cable length.

- **History.** To record installation and replacement information such as the installation company name, dates and related contract / dispatch information.

Updating Assets

The decision whether to update traffic signal assets is made at the point of setting up the contract (see "Setting Up A Contract" on page 65).

In the Contract Details window (**Maintenance > Contract Details** from the main RAMM Traffic Signals menu) select the **Update Asset** option (see above) to enable the replacement of traffic signal assets.

If this is unticked, when completing a dispatch (see "Completing Dispatches" on page 82) you'll go straight on to the claims window (see "Claim Lines" on page 86) without being prompted to replace assets.

This auto-skip facility cuts down on keying time and would only be applicable if as a contractor you have won another contract which you are running on the database without updating asset data.

For example, you may have a traffic signal maintenance contract and also a power company maintenance contract. On checking a reported fault, you may have also found and fixed a related wiring fault. Back at base, you would transfer the supposed traffic signal from the Council contract to the power company contract and complete the dispatch without updating the data.

Replacing Traffic Signal Assets – ts

> **NOTE**: Replacing an asset is quite different from simply changing its details to correct an error. Replacing an asset has an impact on claims and maintenance schedules, and should be done only when necessary.

Traffic signal assets are replaced in the Traffic signals window (on page 134) by clicking the **Replace Asset** button on the toolbar.

> **NOTE**: When replacing assets, you need to be absolutely sure that you're replacing the correct asset in the database. This is where details like the pole number and pole ID will be crucial. For more information on configuring location information, see Options - Database (on page 170).

Replacement History

Rather than simply replacing one asset with another, replacing assets in RAMM Traffic Signals involves 2 simultaneous actions: archiving the old asset, and adding the new asset.

When the asset is replaced, the replaced date defaults to the completed date on the relevant dispatch. This is primarily to create a replacement history over time- a record of how often different assets and asset types are replaced and why. When analysed (see "Reports" on page 201), this becomes a good indication of the failure of a particular asset, or an external factor such as a poorly positioned pole.

For the same reason, it's also important to enter a reason for the replacement- for example vandalism, poor condition. These are set up in Maintaining Replacement Reasons (on page 186).

Linked Replacements

The replacement dialog box has a context sensitive option to replace linked assets. For example, if you've selected the pole to be replaced, you have the option to replace the bracket and the light as well since that's probably what you will need to do.
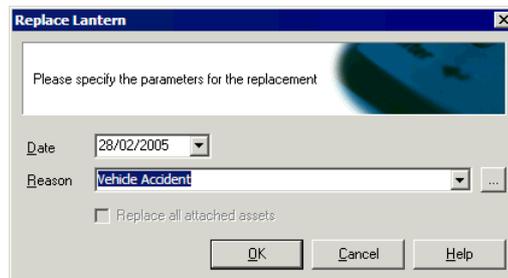
If you choose not to, the existing bracket, light, gear and lamp combination are transferred to the new pole. RAMM Traffic Signals will also warn you if the change will have an impact on multiple assets, as in the screen above. For a detailed description of the replacement procedure, see Replace Asset (on page 84).

Asset Valuation in RAMM Traffic Signals

Asset Valuation in RAMM Traffic Signals helps you compare the expected performance of a traffic signal asset with its actual performance.

The Asset Valuation information is *view-only,* and available only in Client versions of RAMM Traffic Signals. For more information on Asset Valuation, see the *Using RAMM* and *Asset Valuation* guides.

Patrols

Patrols are crucial to keeping your Traffic Signals network in good working order. This section describes setting up patrol areas and recording patrols. You can then link each dispatch directly to a patrol.

IN THIS CHAPTER

Maintaining Patrol Areas

Select **Maintenance > Patrol Areas** from the main RAMM Traffic Signals menu or **Actions > Patrols > Maintain Patrol Areas** from the Patrol window to access this facility.
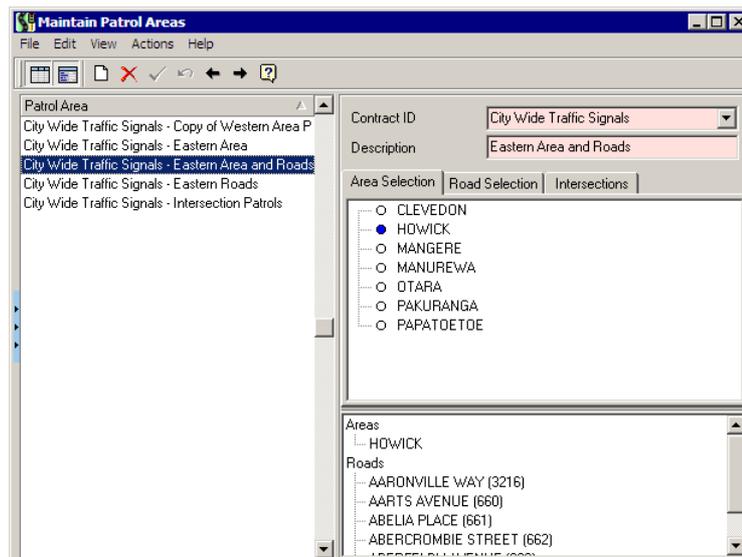
From this window you can define regularly patrolled areas. Once defined, an area can then be linked to specific patrols.

A patrol area can be defined either by area/sub-area (on the **Area Selection** tab) or by road/carriageway section (on the **Road Selection** tab), or a combination of both. The icon key below indicates the selection status within each area, and whether sub-areas are available for selection.

Area Selection List Icons

- ⊞ Sub areas are available (click to expand list).

- ⊟ Areas are already expanded (click to collapse list).

- ○ Area is not selected.

- ◑ Part of the area is selected.

- ● All of the area is selected.

Road Selection List Icons

- ⊞ Carriageway sections are available (click to expand list).

- ⊟ Carriageway sections are already expanded (click to collapse).

- ○ Carriageway/Road is not selected.

- ◑ Some carriageway sections within the road are selected.

- ● The entire road is selected.

▶ How To Define Patrol Areas

1 Click **Add Record** ▢ to begin defining a Patrol Area. You can define as many patrol areas as you wish.

2 Link the Patrol Area to a Contract.

3 Enter a name for the Patrol Area. For each grouping a unique Patrol Area name is required. It is by this Patrol Area name that an area is linked to an actual Patrol.

4 Select the patrol area. For example, you can select a large region such as *Howick*, a *sub-area of Howick*, a road such as *Aaronville Way*, a *carriageway within Aaronville Way* or a combination of all four options. The Areas window at the bottom of the window lists the selected areas, sub-areas, roads and carriageway sections that are covered by the current patrol area.

5 **Save** ✓ your changes.

> NOTE: The Patrol Areas should correspond with the patrol requirements of the contract. Once a patrol area has been linked to an actual Patrol, the details of the area cannot be altered.

Entering Patrol Details

Inspection areas and the timing of patrols are normally defined in the contract. This window allows you to enter patrol details, and link them to predefined areas.

From the main RAMM Traffic Signals main window, select **Actions > Patrols**.

The information you see is filtered by default, restricting those patrols displayed to patrols within the last month. To change this select **Options > Edit Filter** (CTRL+F) or **Clear Filter** (CTRL+L) from the Patrols window menu.

An Area must be selected from the Patrol Areas already defined (see Maintaining Patrol Areas (on page 153)) – alternatively areas can be defined directly from this window by selecting **Actions > Maintain Patrol Areas**. Once a Patrol Area has been selected, the 🐞 button is enabled. Clicking this button will bring up a full description of the area.

> **NOTE**:   Choosing the right frequency for the patrols is crucial. Large areas can be patrolled once a month, but it may be advisable to patrol main roads weekly. Click the drop-down arrow ▪ to bring up a calendar to select the date. Use arrow keys on your keyboard to select a start and end time.

The name of the person who carried out the Patrol must also be entered.

You can now go to the Dispatch Entry window (on page 108) and view the dispatches entered by this patrol.
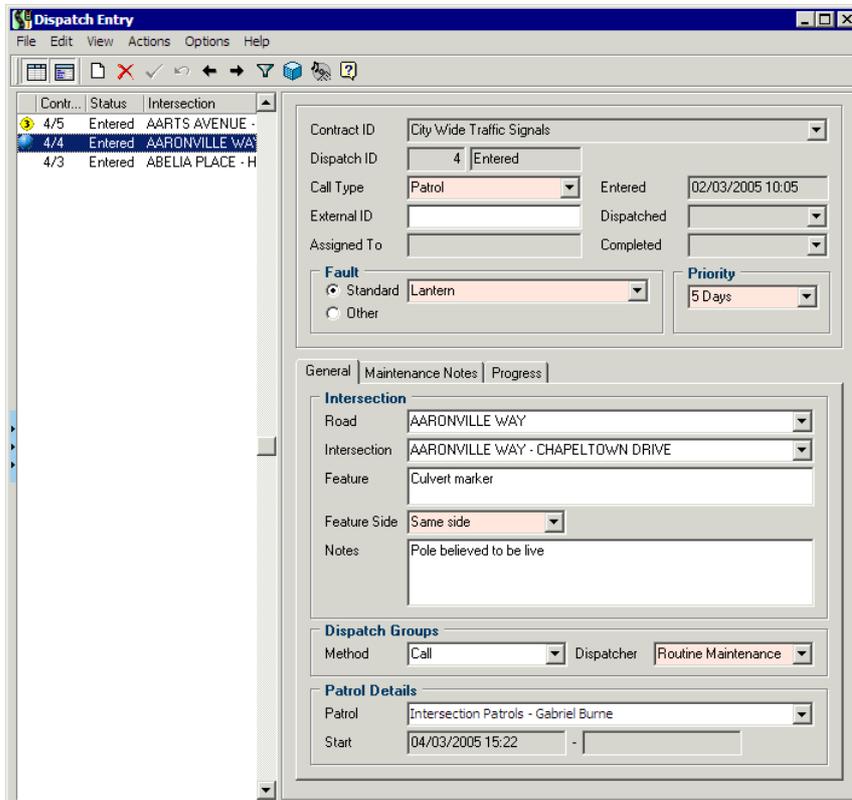
Claims

A **Claim** groups together claim lines for the same contract within a fixed period. This section examines how you work with claims in RAMM Traffic Signals.

IN THIS CHAPTER

Contract Claims

The Claim Maintenance window can be launched either from the main RAMM Traffic Signals window by clicking the Claims window button [icon] on the toolbar

-OR-

by select **Actions > Contract Claims** from the main RAMM Traffic Signals window.

You can now enter or edit claim headers. By default, only the claims that are not completed are shown. If you wish to see all claims, select **View > Show All Claims**.
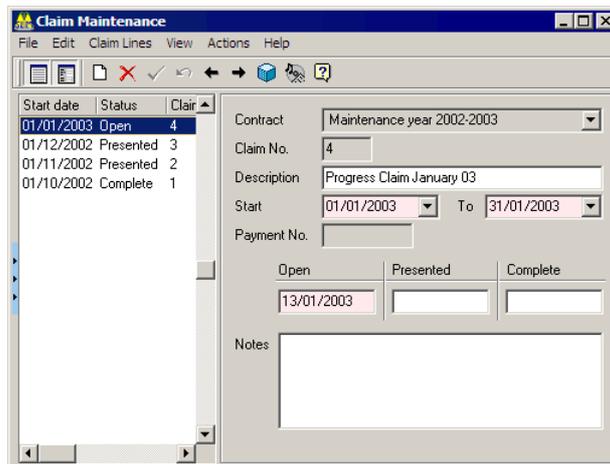
Entering a claim header is a matter of simply selecting the appropriate contract, inserting an optional description and filling in the start and end dates for the claim. You can also add notes. The claim header is now ready to have claim lines attached to it.

> **NOTE**:   Claim lines can *only* be added when completing a dispatch, or by selecting **Actions > Claim Lines** or CTRL+A on a completed dispatch. See Claim Lines (on page 86).

Claim Life Cycle

A claim has a three stage life cycle:

- **Open**. When the claim is open, claim lines can be linked to it.

- **Presented**. This indicates that the claim has been printed and presented for payment.

- **Complete**. The claim has been accepted and no further action is required.

By default, when a claim is created it is **Open**. The options to move the claim through the next steps are under **Actions**.

Claim Actions

- **Print Claim (CTRL+P)**. This prints a claim, changes the status to *Presented* and inserts the presented date. Once a claim has been presented, claim lines cannot be altered. If changes are required, you will need to *Unpresent* the claim (see below).

- **Complete Claim (CTRL+O)**. This allows you to enter a payment in order to complete the current claim.

- **Unpresent Claim (CTRL+U)**. You should avoid using this option unless absolutely necessary. This will reverse the status of the claim from *Presented* to *Open*. However, this means you also have to cancel or destroy all printed material relevant to the prior presentation of the claim.

Selecting **Claim Lines** from the menu opens another window that gives you access to the individual lines grouped under the claim. Claim lines can be updated and deleted from this window. You can also view the details of each claim line by double-clicking it, or by selecting the claim line and then selecting **View > Show Detail** from the menu.

Select Payment Header

When creating a claim line, if there is more than one payment header open, you're prompted to select one.

If there is no payment header available, you're prompted to create one.
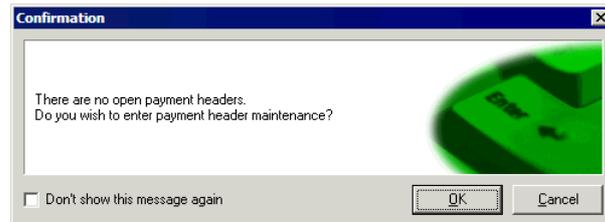
If a payment header isn't available, you won't be able to add a claim line.

All lines entered for this Dispatch will be linked to the payment header selected or created.

Printing a Claim

The steps below show how to print (and present) a claim.

▶ **How To Print a Claim**

1   Select the claim in the List panel of the Claim Maintenance window.

2   Select **Actions > Print Claim**

-OR-

CTRL+P.
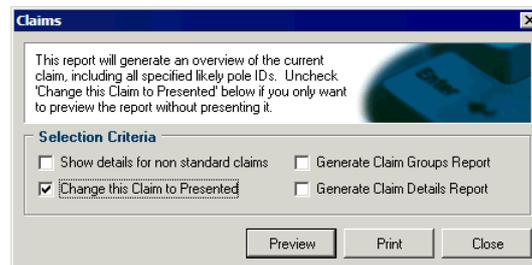
3   You have a number of options:

- **Change this claim to Presented** (selected by default) can be unticked if you just want to preview the claim.

- **Show details for non-standard claims**.

When the *Claimed Rate* does not equal the *Agreed Rate* then these values can be highlighted on the claim in red. They are also listed individually under each claim item. Selecting this option prints the Dispatch ID and the Maintenance Notes from the Dispatch for these items on the claim.

> **NOTE:** This changes the print layout of the claim from portrait to landscape. You will also need a colour printer to print the highlighted values in red.

- **Claim Groups Report**.
- **Claim Details Report**.

For more information on these two selections see Claim Reports (on page 210).

> **NOTE:** Once the claim is presented, this window will show only 3 options as active (**Change this Claim to Presented** will be inactive).

4 Make your selections and then click either **Preview** or **Print**.

5 When you're done you'll be returned to the Claim Maintenance window.

Maintenance Crew Payments

This section looks at maintenance crew payments.

IN THIS CHAPTER

Crew Payments

The use of Crew Payments is linked to the Piecemeal Rate (PMR) option in the Contract. This allows for individuals to be paid for work done. When a dispatch is being completed and Claim Lines are being entered, if the PMR option applies, a Crew member must be selected from the list. The Crew member is the one who will receive payment for the completed job. The Payment covers a period and will link together all the claim lines for that period. The Payment can be printed, updated and then all claim lines linked to the payment can be flagged as Paid.

A Payment has three phases:

- **Open**: Claim lines can be linked to this Payment.

- **Claimed**: The Payment report and unload file have been generated and presented for payment.

- **Altered**: A change has been made and the report/unload file needs to be recreated.

- **Paid**: The figures have been accepted and payments made to the Crew members.

By default when a payment is created it is **Open**. Under **Actions** are the options to move the Payment through the next steps. **Claim** produces a report and an unload file giving payment details, and inserts the presented date. **Pay** allows the user to enter the payment number to complete the current claim.

Payment Lines gives access to the individual lines grouped under the header. These lines can be update and deleted only when the Claim is not completed. The Payment Lines can be expanded either by double clicking on the highlighted line or clicking **Expand** under the **View** menu option.

On entry only the Payments that are not completed are shown. Located under **View** is **Show All Payments Headers**. Click this to display everything. The status of a payment, unless otherwise displayed on the window, is **Open**.

Piecemeal Rate

From the RAMM Traffic Signals main window, select **Maintenance > Contract Details** to manage Piecemeal Rate settings for Maintenance Crews.

If you tick the **PMR Payment** option as above, the **PMR** tab will become available. Here you should specify which day the payments will be made, and at what intervals.

Selecting this option also enables the **PMR Rate** option on the **Schedule Items** (see "Setting Up Schedule Items" on page 69) entry window.

Crew

If you enable PMR Payment on the **Maintenance > Contract Details** window, you will also need to enter settings on the **Crew** tab and the **PMR** tab.
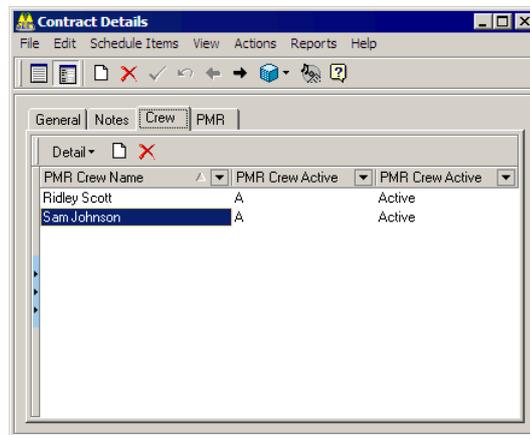
The crew members you enter will become active by default. You will also need to define the Start Day and Period for the PMR.
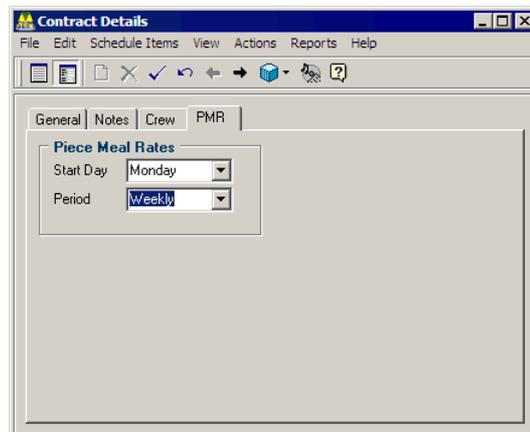
Save ✓ each change.

RAMM Traffic Signals Options

This section shows you how configure RAMM Traffic Signals Options.

By choosing **Actions > Options** from your RAMM Traffic Signals menu, you can set other options pertaining to **Database, Electricity charges, Safety Testing** and **Optional Groups.**

You can also configure how you will send and receive RAMM Traffic Signals data by Email (see "Email Options" on page 124) by selecting **Actions > Email Options.**

> **NOTE:** This section does *not* describe setting general programme preferences, which are accessed in the main RAMM Traffic Signals window from the **Options > Preferences** menu.

IN THIS CHAPTER

Options – Database

The **Database** tab sets database related RAMM Traffic Signals options.
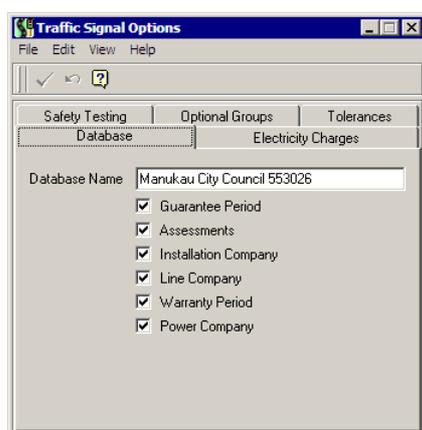
- **Database Name**. This appears on the second line of every report heading (see "Reports" on page 201). This name can differ from the name entered in the Database Description column. By default, the name is carried across from the Council's database, but if you're a Contractor you can alter this name as the information isn't transferred back to the Council.

- **Guarantee Period**. All assets will have the option to apply a guarantee date. The guarantee period is for one year from the guarantee date. If during this period a dispatch is raised against the asset, the comment **This [Asset] is still under guarantee** is printed with the relevant details. For more information, see Printing Dispatches (on page 79).

- **Assessments**. This option is for the purpose of assessing traffic signal assets. See Condition and Assessment in RAMM Traffic Signals (on page 197) for more information. The results of the Assessments are reported on the Assessment Detail tab of each asset in the Traffic Signals window (on page 134).

- **Installation Company.** To enable the user to enter installation company details. You can set up this information in Maintenance (see "Maintaining Power Supply and Installation Information" on page 187).

- **Line Company**. If this option is enabled, the Line Company name will be made available with the circuit information.

- **Warranty Period.** Tick the Warranty Period box if you want the warranty period to be taken into account when certain assets are replaced. The warranty period applies to lamps, gears and lights. For more information, see Maintaining Warranty Period (on page 178).

- **Power Company**. This option will enable the power company field on the Pole General tab in the Traffic Signals window (on page 134).

Options – Safety Testing

The **Safety Testing** tab gives access to 8 fields that can be configured to produce a safety testing checklist on the Dispatch as below.
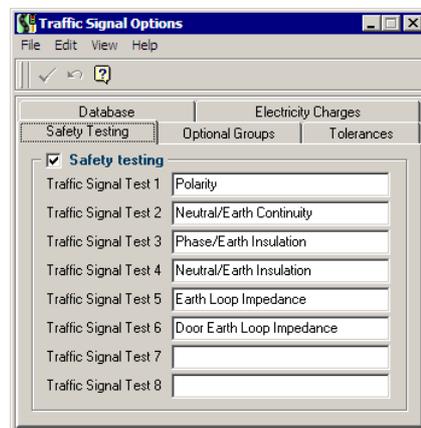
The testing categories appear at the base of the Dispatch Detail report:

For more information, see Dispatch - Printing Options (on page 120).

Options – Optional Groups

Optional Groups are to customise, record or group information in a way that's pertinent to a specific needs of a Council. This tab controls the activation of these Optional Groups. They then become available on the Dispatch Entry window (see "Dispatch - General Tab" on page 110) and Claim Line Detail window (see "Claim Lines" on page 86).

For example, the Council may require a breakdown of their schedule items in such a way that they know how much a Ward is costing them to maintain (Claim group) or they may wish to find out how many faults are been reported on

weekends (Dispatch group). These Optional Groups can be configured to reflect this information.

The Dispatch groups show on the Dispatch Entry window, the Claim groups in the Claim detail window.

> **NOTE**: It's advisable to configure the groups from their relevant Maintenance screens before you choose related actions for them here. Dispatch Group 1 and Claim Group 1 are *contract specific,* and you can associate each of them with a contract. Dispatch Group 2 and Claim Group 2, however, cannot be linked to contracts. See Maintaining Dispatch Groups (on page 191) and Maintaining Claim Groups (on page 190) for more information, and return to this window to configure status options for the groups.

Select the status of each optional group:

- **Optional**. The group is available, but the field can be left blank. Use this status option if the group needs to be selected only for certain items.

- **Required**. The user must select a value before the entry can be saved. This status option is a good way of ensuring that data is entered in all cases.

- **Not in use**. This is the default value. If this status option is selected the group will not be visible, even if other details have been set up within it.
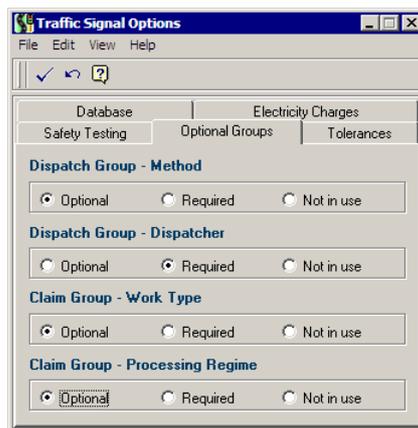
You may then select the appropriate values from the drop down lists which will be made available to you when entering Claim Lines and/or Dispatches (depending on which of the possible four options you have activated).

These groups will also be available for generating reports and analyses with the Decision Cube (on page 203), which is available by clicking 📦 from the **Dispatch Entry** window, or from the **Claims** window.

> **NOTE**:   Optional Dispatch groups can also be set up for email entries. If you have these groups flagged as **Required** then ensure that default entries are selected under Email Options (on page 124).

Options – Tolerances

The **Tolerances** tab allows you to set a tolerance level (in units) to reconcile map co-ordinates that do not match in the Dispatch Entry window (on page 108).
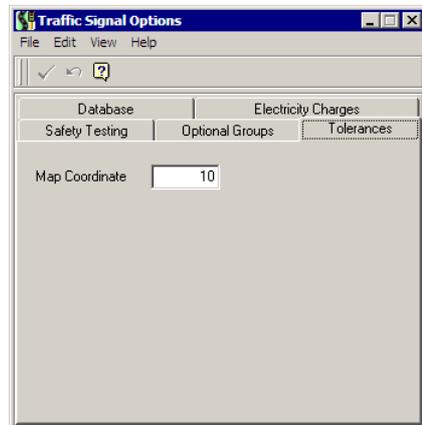
With this example RAMM Traffic Signals will show 10 map coordinates greater and lesser than the expected location for the asset. This is particularly important because you can't rely on the person taking a map coordinate reading for an asset standing in the same spot every time. The setting is expressed in metres.

Maintenance

This section in RAMM Traffic Signals describes working with the items on the **Maintenance** menu of the main RAMM Traffic Signals window.

If you're setting up your Traffic Signal assets from scratch, we advise using the Traffic Signals Insert Wizard (on page 89) to ensure that the assets are set up in the right order.

This is where you set up the information for the various drop-down lists in RAMM Traffic Signals windows. Most tables contain a Code and a Description, but some require additional information. Wherever possible, RAMM Traffic Signals will fill in the default values for these tables when you enter a maintenance window.

You must have the relevant security (on page 271) permissions to configure these settings.

The assets in the lists correspond to the inventory items of a typical Traffic Signals system. To view a diagram of how they are related to each other, see Traffic Signals - Components (on page 39).

IN THIS CHAPTER

Maintenance – Duplicating Entries

Most RAMM Traffic Signals Maintenance windows allow you to duplicate an entered item to save you time and trouble setting up assets. Simply select the item in the List panel (see "RAMM Traffic Signals Workspace" on page 49) and select **Edit > Duplicate** from the menu.

▶ **How To Duplicate An Entry**

1   Go to the relevant Maintenance window for the asset from the main RAMM Traffic Signals window.

2   Select the item to be duplicated in the List panel.

3   Select **Edit > Duplicate** on the menu

-OR-

Right-click anywhere other than inside a panel to bring up the same menu and select **Edit > Duplicate**.
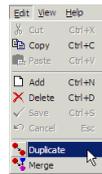
4   This will generate a copy of the item, named *Copy of [Item]:*
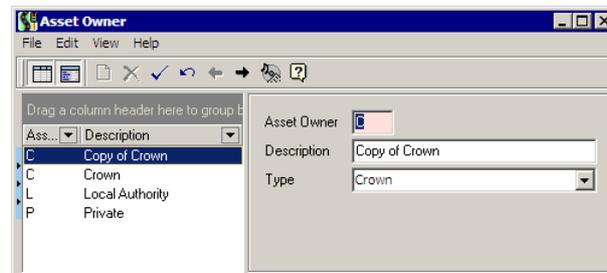
5   You can now edit the item, changing its parameters and description.

6   **Save** your work and close the window.

Maintenance – Merging Entries

RAMM Traffic Signals Maintenance windows also have the facility of merging entries to avoid duplicating information unnecessarily.

For example, you may have entered a number of lanterns in Traffic Signals and given them different models, but later find that the models actually refer to the same model (for example H 50 and H50).

You can merge the entries for these codes, so that analyses or reports based on this model will accurately reflect the fact that all of these lights are the same model.

▶ **How To Merge Entries**

1   Go to the relevant Maintenance window for the asset from the main RAMM Traffic Signals window.

2 Select the entry *to be merged* (the one that will NOT remain after the merge) in the List panel.

3 Select **Edit > Merge** from the menu

-OR-
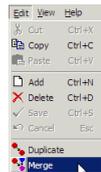
Right-click anywhere other than inside a panel to bring up the same menu and select **Edit > Merge.**

4 RAMM Traffic Signals will ask you which row *you wish to merge to* with the entry selected in 2 above (the row that WILL remain after the merge):
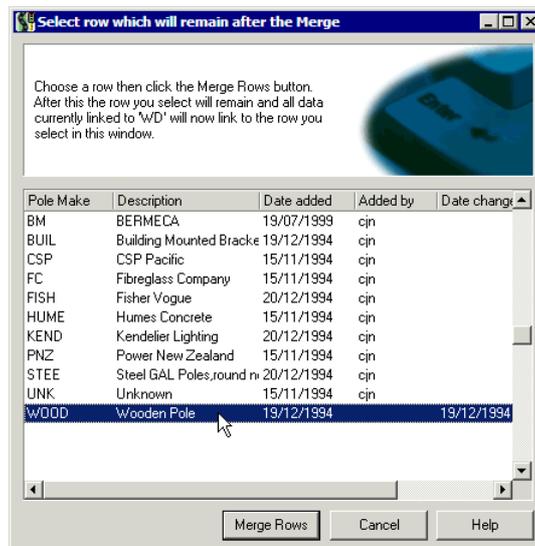
Select the relevant row and click **Merge Rows**.

5 Close the Maintenance window when you're done.

Maintaining Warranty Period

Selected RAMM Traffic Signals Maintenance windows allow you to enter a warranty period in months. This field will be available from the Maintenance

menus (**Maintenance > Manufacturers > [Asset]**) if you have enabled it on the RAMM Traffic Signals Options Database tab (see "Options – Database" on page 170).

This facility is useful to check whether assets need replacement before the end of this period. The assets that are identified as such are shown in the Warranty Failure Report (on page 216).
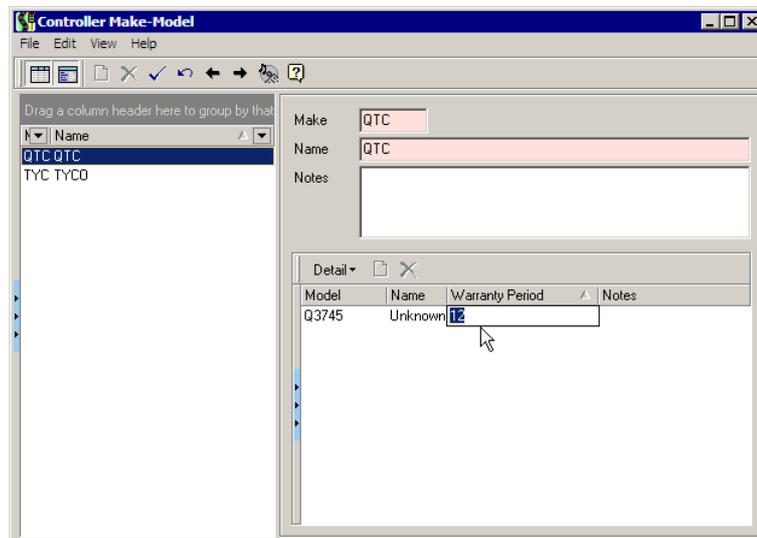
Click below the relevant column in the Detail panel of the window to enter the warranty period.

Maintaining Contract Details

Entering contract details is generally done at the beginning of the contract. For more information, see Setting Up Contract Details (on page 66).

Maintaining Contract Item Activities

Maintaining Contract Item Activities is generally performed at the beginning of a contract. See Setting Up Contract Item Activities (on page 68).

Maintaining Owner Types and Owners

This maintenance window is to set up *Owner Types* and *Owners* for assets.

It's advisable that you set up the Owner Types first.

▶ **To Set Up Owner Types**

1 From the main RAMM Traffic Signals window, select **Maintenance > Owner > Type**.

2 Click ▢ on the window toolbar to begin a new entry or select the entry you wish to edit.

3 Enter the code for the Owner **Type** (mandatory field - for example, *LA*) and a **Description** (*Local Authority*).

4 Save ✓ your settings. These will then be available when setting up Owners below.

▶ **To Set Up Owners**

1 From the main RAMM Traffic Signals window, select **Maintenance > Owner > Owners**.

2 Click ▢ on the window toolbar to begin a new entry or select the entry you wish to edit.

3 Enter the code for the **Asset Owner** (mandatory field).

4 **Description** and **Type** selection is optional.

5 Save ✓ your settings.

Maintenance – Manufacturers

This menu allows you to set up the bulk of the *Make* and *Model* information for Traffic Signal assets.

From the main RAMM Traffic Signals window, select **Maintenance > Manufacturers > [Asset]** to open a maintenance window where you can enter Make and Model information for these assets.
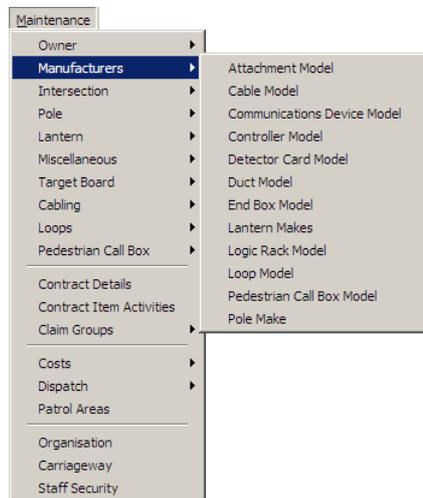
▶ **To Enter Manufacturer Make and Model for Assets**

1 Click ⬜ on the window toolbar to begin a new entry.
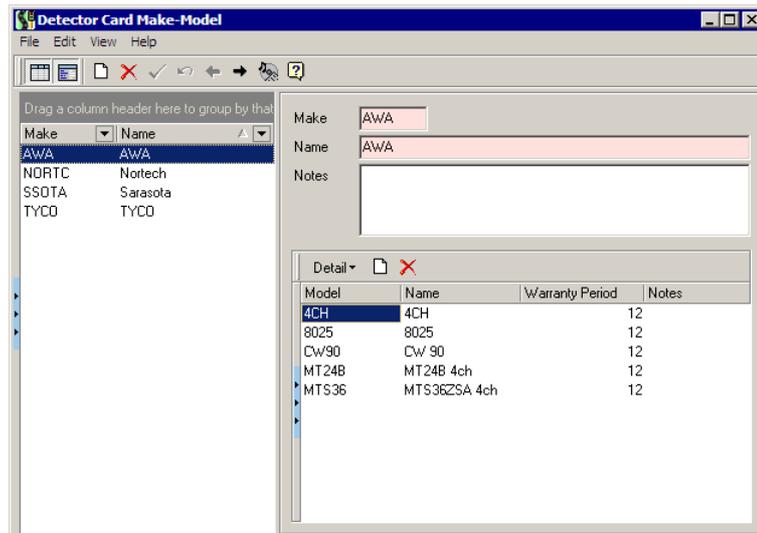
2 Enter a code for the **Make,** and the complete name in the **Name** field.

3 Enter Detail items as required by clicking the ⬜ button in the Detail panel of the window. **Model** and **Name** are required fields.

4 Enter a **Warranty Period** in months and **Notes** if required. You can enter Notes for the Make as well as the Model.

5 Save ✓ and close the window when you are done.

Maintaining Intersection Behaviour and Type

This Maintenance window is to set Intersection *Behaviour* and *Type* that will be reflected in the Intersections window (see "Working with Intersections" on page 42).

▶ **To Set Up Intersection Behaviour**

1 From the main RAMM Traffic Signals window, select **Maintenance > Intersection > Behaviour**.

2 Click ⬜ on the window toolbar to begin a new entry or select the entry you wish to edit.

3 Enter the code for the **Behaviour** and the **Description** (typically, whether the Intersection is *Controlled* or *Uncontrolled*). Both fields are mandatory.

4 Save ✓ your settings to make them available in the Intersections window.

▶ **To Set Up Intersection Types**

1 From the main RAMM Traffic Signals window, select **Maintenance > Intersection > Type**.

2 Click ⬜ on the window toolbar to begin a new entry or select the entry you wish to edit.

3 Enter the code for the **Intersection Type** and the **Description** (typically, *4-way Junction, Pedestrian Crossing, T-Junction, Y-Junction*). Both fields are mandatory.

> **NOTE**: If you have Intersections generated by RAMM, you will see a *RAMM Generated* type in the List by default. Since there will be Intersections attached to this type, you cannot delete it.

4 Save ✓ your settings to make them available in the Intersections window.

Maintaining Pole Mounting and Type

This maintenance window is to set up Pole *Mounting* and *Type* for selection in the Traffic Signals window (see "Traffic Signals - Pole" on page 143).

▶ **To Set Up Pole Mounting and Type**

1 From the main RAMM Traffic Signals window, select **Maintenance > Pole > [Mounting/Type]**.

2 Click ⬜ on the window toolbar to begin a new entry or select the entry you wish to edit.

3 Save ✓ your settings to make them available

Maintaining Lantern Details

A number of maintenance windows for Lanterns are available from this menu to set up Lantern details for selection in the Traffic Signals window (see "Traffic Signals - Lantern" on page 145).

Lantern Display Type

The Lantern Display Type represents its function - whether a *Left Turn, Pedestrian, Right Turn, Through, Through and Left Turn* or *Through and Right Turn*.

Lantern Lamp Type

The Lamp is the light source inside the Lantern. Typical Lamp types are *Incandescent, Quartz Halogen* or *LED (Light Emitting Diode)*.

Lantern Material

The Lantern Material maintenance window details lantern construction materials. These are typically *Metal* or *Plastic*.

Lantern Type

The Lantern Type refers to its priority within the Intersection layout (*Primary, Secondary* or *Tertiary*).

▶ **To Maintain Lantern Details**

1 Click ⬜ on the window toolbar to begin a new entry, or select an existing entry from the List panel on the left.

2 Enter the code for the **Type** or **Material** and the **Description**. These are mandatory fields.

3 If the window allows entry of Details, you can now enter them by clicking the ⬜ button in the Detail panel of the window. These may include a *Wattage* figure for each model, or a Warranty Period in months (see "Maintaining Warranty Period" on page 178). The Lantern Type maintenance window requires you to specify a *Position*.

   You can also enter detailed **Notes**.

4 Save ✓ and close the window when you are done.

Maintaining Miscellaneous Definitions

RAMM Traffic Signals has a number of miscellaneous Maintenance categories (select **Maintenance > Miscellaneous** from the main RAMM Traffic Signals window).

Maintaining Attachment Types

This maintenance window sets up Attachment Types for selection in the Traffic Signals window (see "Traffic Signals - Attachment" on page 147).

▶ **Maintaining Attachment Types**

1   From the main RAMM Traffic Signals window select **Maintenance > Miscellaneous > Attachment Type**.
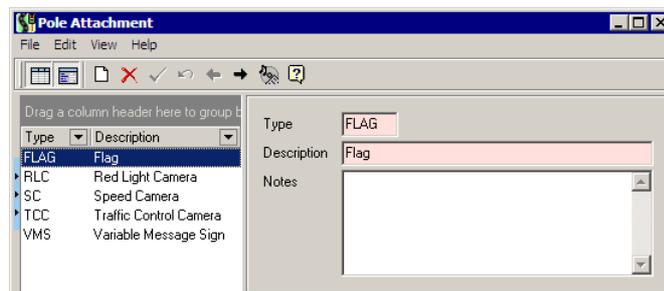
2   Click ▯ on the window toolbar to begin a new entry, or select an existing entry from the List panel on the left.

3   Enter the code for the **Type**, and the **Description**. These are mandatory fields.

4   You can also enter detailed **Notes** if required.

5   Save ✓ and close the window when you are done.

Maintaining Replacement Reasons

When an asset is replaced in the Traffic Signals window (on page 134), a reason for the replacement needs to be given.

▶ **Maintaining Replacement Reasons**

1   From the main RAMM Traffic Signals window select **Maintenance > Miscellaneous > Attachment Type**.
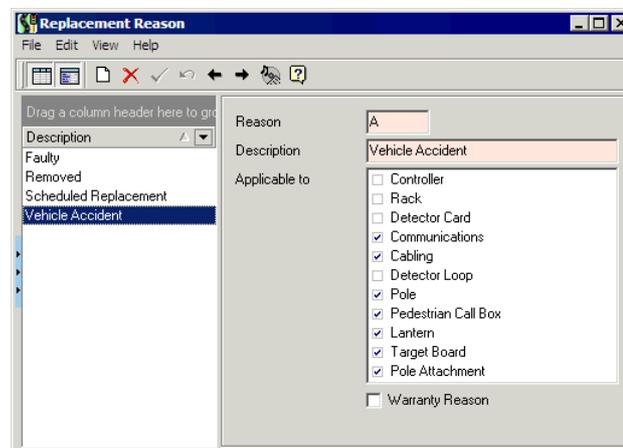
2   Click ⬜ on the window toolbar to begin a new entry, or select an existing entry from the List panel on the left.

3   Enter the code for the **Reason,** and the **Description**. These are mandatory fields.

4   Decide which asset(s) you wish each reason to apply to, by ticking the relevant boxes in the **Applicable to** section.

5   Tick the Warranty Reason box if the warranty period needs to be noted when this particular reason is given for replacing an asset. If you do, and replacements are being made while the warranty period is still in effect, you will be informed of this while doing the replacement. You can also report on all such cases by running the Warranty Failure Report (on page 216).

6   Save ✓ and close the window when you are done.

Maintaining Power Supply and Installation Information

Use these maintenance windows to configure *ICP (Installation Connection Point) Numbers, Power Supply Company, Line Company* and *Power Supply Company* details for selection in the Traffic Signals window (on page 134).

ICP (Installation Connection Point) Numbers

From the main RAMM Traffic Signals window select **Maintenance > Miscellaneous > ICP Numbers** to enter this information. ICP numbers are available for Controllers (see "Traffic Signals - Controller" on page 138).

Installation Company

The Installation Company information is maintained by selecting **Maintenance > Miscellaneous > Installation Company**. Once you've entered this information, you also need to ensure that **Installation Company** is selected on the RAMM Traffic Signal Options - Database (on page 170) tab to make the field available on the History tabs of the various assets in the Traffic Signals window.

Line Company

Select **Maintenance > Miscellaneous > Line Company** to maintain this information.

Selecting whether the company is **Active** or not is mandatory. The Line Company is in charge of the lines, and supplies the power to the asset on behalf of the Power Supply Company (below). When a whole street is reported as "not going", for example, this could be the responsibility of the Line Company rather then 20 intersections with blown lanterns.

You need to ensure that Line Company is selected on the RAMM Traffic Signals Options - Database (on page 170) tab to make the field available in the General tab for the Controller (see "Traffic Signals - Controller" on page 138).

Power Supply Company

Select **Maintenance > Miscellaneous > Supply Company** to configure this information.
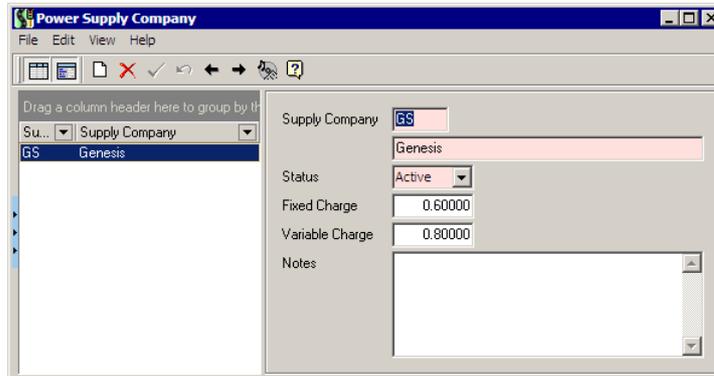
The Supply Company is defined as the company that generates and supplies the power to the asset. This is the same company that you pay for the power consumption/usage based on the wattage of the network for each ICP (see above).

Selecting whether the company **Status** (whether Active or not) is mandatory.

Electricity Charge

The electricity charge is calculated using the formula below.

Electricity Charge   = (no of lanterns x fixed charge x days in period) +
(((sum of (no of lamps per model x wattage)) / 1000) x
(4250/365 x days in period) x variable charge)

~q electricity charge - is this needed, is this necessary

▶ **Maintaining Power Supply and Installation Information**

1   From the main RAMM Traffic Signals window, select the maintenance window you require from those described above in the **Maintenance > Miscellaneous** menu.

2   Click ☐ on the window toolbar to begin a new entry, or select an existing entry from the List panel on the left.

3   Enter or change the required details. Mandatory fields are indicated by a colour.

4   You can also enter detailed **Notes** if required.

5   Some windows require you to set **Status** field.

6   Save ✓ and close the window when you are done.

Maintaining Asset Material and Type

A number of maintenance windows available from the RAMM Traffic Signals **Maintenance** menu allow you to set up Material and Type fields to make them available for the respective assets in the Traffic Signals window (on page 134).

Target Board Material and Type

Select **Maintenance > Target Board > [Material/Type]** to open this maintenance window. Target Board Materials are typically *Fibreglass, Metal* or *Plastic*. The Type refers to the Aspect of the Target Board (*3, 4, 5,* or *6-Aspect*). You can then select them for the relevant fields available for Target Board details (see "Traffic Signals - Target Board" on page 144).

Cabling Material and Type

Select **Maintenance > Cabling > [Ducting/End Box Material/Type]** to open this maintenance window. You'll set up information for Cable *Ducting* and *End Boxes* rather than for the cable itself. You can then select these entries for the relevant fields available for Cabling details (see "Traffic Signals - Cabling" on page 148).

Loop Material and Type

Select **Maintenance > Loop > [Material/Type]** to open this maintenance window and enter the relevant information. You can then select these entries for the relevant fields available for Loop details (see "Traffic Signals - Loop" on page 142).

Pedestrian Call Box Type

Select **Maintenance > Pedestrian Call Box > Type** to open this maintenance window and enter the relevant information. These Types are typically *Audio / Tactile, Smart Ped, Standard, Tactile Only* or *X-flo*. You can then select these entries for the relevant fields available for Pedestrian Call Box details (see "Traffic Signals - Pedestrian Call Box" on page 146).

▶ **Maintaining Asset Material and Type**

1   Open the maintenance window for the asset Material or Type from the **Maintenance** menu as above.

2   Click ☐ on the window toolbar to begin a new entry, or select an existing entry from the List panel on the left.

3   Enter the details. Mandatory fields are indicated by a colour.

4   You can also enter detailed **Notes** if required.

5 Save ☑ and close the window when you are done.

Maintaining Claim Groups

You can set up two Claim Groups that will become available in the RAMM Traffic Signals Options window on the Optional Groups tab - see Options - Optional Groups (on page 171). They will then become available for the Claims Lines Detail window (see "Claim Lines" on page 86).

Claim Group 1

NOTE: Claim Group 1 is contract specific.

You would typically use this Claim Group for Claims that you specifically want to link to a contract.

Select **Maintenance > Claim Groups > [Group 1]** from the main RAMM Traffic Signals window to configure this group.

You can change the name of the Group to something more meaningful if you wish. Once you have done so, RAMM Traffic Signals will show the modified name in the Maintenance menu. In the example below we have renamed Group 1 to *Work Type*.
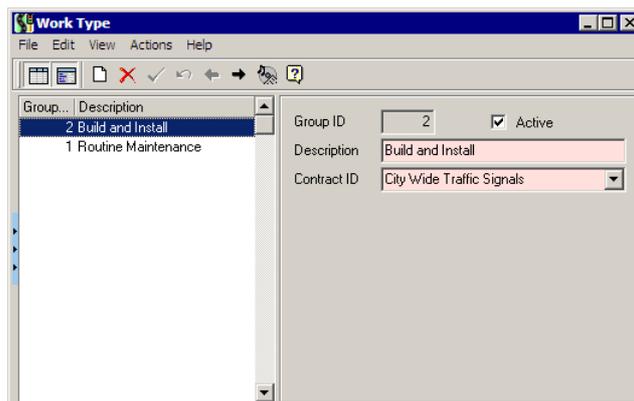
If more than one contract is open, you can select your preference from the Contract drop-down list. Enter your Claim Group descriptions, and link each group to a contract from the Contract ID drop-down list.

Claim Group 2

> **NOTE**:   Claim Group 2 cannot be linked to a contract.

You would typically use this Claim Group for a wide range of Claims not confined to a single contract.

Select **Maintenance > Claim Groups > [Group 2]** from the main RAMM Traffic Signals window to configure this group.

As with Group 1, you can change the name of the Group. RAMM Traffic Signals will show the modified name in the Maintenance menu.

▶ **Maintaining Claim Groups**

1   From the main RAMM Traffic Signals window select **Maintenance > Claim Groups > [Group Name]**.

2   If you wish to change the name of the group, select **Actions > Modify Group Name** and enter a new name.

3   Click ▯ on the window toolbar to begin a new entry, or select an existing entry from the List panel on the left. The Group ID will be assigned automatically.

4   Enter the **Description** and select the **Contract ID**. These are mandatory fields.

5   Make the Group **Active** by ticking it.

6   Save ✔ and close the window when you are done.

The Claim Groups you have entered will now be available in Options - Optional Groups and for Claim Lines.

Maintaining Dispatch Groups

Two Dispatch Groups can also be set up for use with Dispatches. As with the Claim Groups, Group 1 is contract specific and Group 2 is not, and both groups can be renamed. Once set up, they will become available in the RAMM Traffic

Signals Options - Optional Groups (on page 171) window and the Dispatch Entry window (on page 108).

Dispatch Group 1

NOTE: Dispatch Group 1 is contract specific.

You would use this group for dispatches that you would want to specifically link to a contract.

You can change the name of the Group to something more meaningful if you wish - we've renamed Group 1 *Method* in the example below.
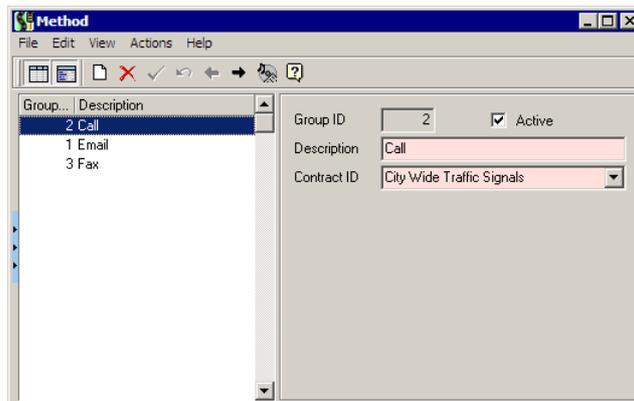
Dispatch Group 2

NOTE: Dispatch Group 2 cannot be linked to a contract.

You would use this group for regular, non contract specific dispatch groups - for example, *Dispatcher Names*.

▶ **Maintaining Dispatch Groups**

1   From the main RAMM Traffic Signals window select **Maintenance > Dispatch > Dispatch Groups > [Group Name]**.

2   If you wish to change the name of the group, select **Actions > Modify Group Name** and enter a new name.

3   Click ⬜ on the window toolbar to begin a new entry, or select an existing entry from the List panel on the left. The Group ID will be assigned automatically.

4 Enter the **Description** and (for Group 1) select the **Contract ID**. These are mandatory fields.

5 Make the Group **Active** by ticking it.

6 Save ✓ and close the window when you are done.

The Claim Groups you have entered will now be available in Options - Optional Groups and for Dispatches.

Maintaining Costs

The RAMM Traffic Signals Maintenance system allows you to set up Maintenance Cost groups, activities and faults that can later be linked with claims and later exported to RAMM for analysis by the Council. These groups are selected from drop-down lists and linked to individual Schedule Items (see "Setting Up Schedule Items" on page 69).

To set up the items in these cost groups and categories, select **Maintenance > Costs > [Lookup]** from the RAMM Traffic Signals main window.

Activity

Cost Group
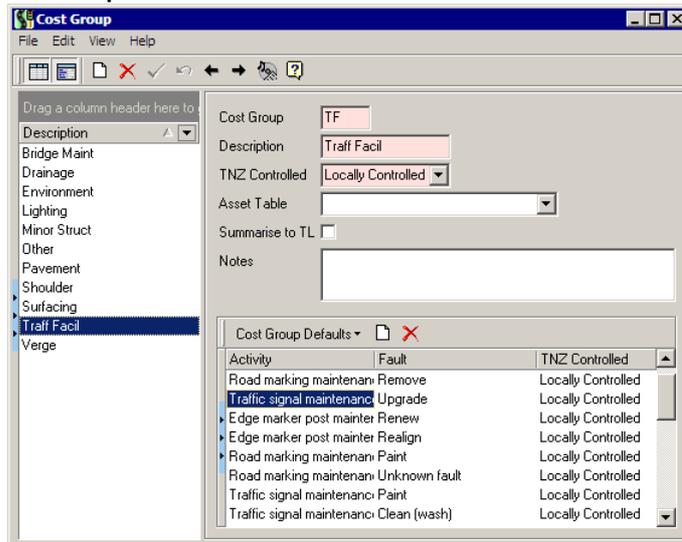
Failure
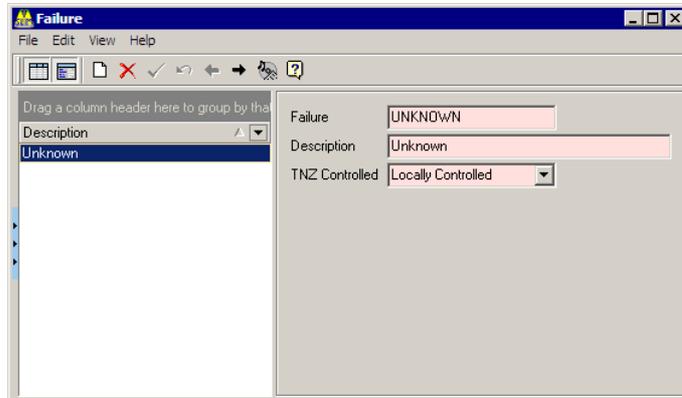
Fault

▸ **To Enter Cost Items**

1 In the main RAMM Traffic Signals window, select **Maintenance > Costs > [Lookup]** as appropriate.

2 Click ☐ on the window toolbar to begin a new entry.

3 Enter the information in the relevant fields or select them from the drop-down lists.

Some windows have Detail panels, in which you can click the ☐ button to enter more details.

4 Save ✓ and close the window when you are done.

Maintaining Call Types

This is generally done while setting up a Contract (on page 65). See Setting Up Call Types (on page 71).

Maintaining Event Codes

An Event Code is a code for classifying events in emails sent from within RAMM Traffic Signals, or between Council and Contractor, to give more information about a job.

▶ **To Maintain Event Codes**

1   In the main RAMM Traffic Signals window, select **Maintenance > Dispatch > Event Codes**.
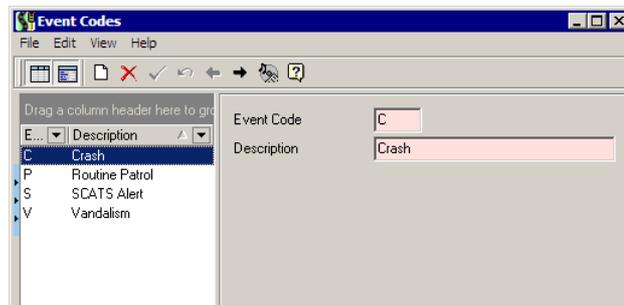
2   Click ▢ on the window toolbar to begin a new entry or select the item in the List that you wish to maintain.

3   Enter the **Event Code** and the **Description**.

4   Save ☑ and close the window when you are done.

Maintaining Fault Categories

This is generally done while setting up a Contract (on page 65). See Setting Up Fault Categories (on page 72).

Condition and Assessment in RAMM Traffic Signals

Assessment in RAMM Traffic Signals enables you to record the state of the asset as it is visited on a dispatch basis, and apply them to Traffic Signal assets.

You need to have the appropriate security permissions (see "Security" on page 271) to work with Assessment in RAMM Traffic Signals.

> **NOTE**: Assessment is fairly complex subject that is covered in more detail in the separate *RAMM Assessment* guide.

Before you set up Assessment for RAMM Traffic Signals, you need to consider what you want to assess and what results you expect.

For example you may want to assess the condition of the lantern, and you would define 1 as *Excellent* but 5 as *Very Poor* (see below). Another good example would be an assessment category specifically for the paint on the pole. 1 could be defined as *looks good.* 5 would be *paint is peeling and needs redoing*. The system is designed with flexibility in mind.

Performing Assessment in RAMM Traffic Signals

Performing Assessment is a complex process that involves preparing Inspectors, Groups, Items and Responses, building Worksheet Templates, performing Assessment according to a Schedule, entering the Assessment Results into RAMM, determining Condition, Risk and Weighting, and looking at the results in reports or in the RAMM Traffic Signals window.

All these actions are streamlined with the help of a Navigator that's available from the **Assessment** menu of the main RAMM Traffic Signals window.

Read the *RAMM Assessment* guide for detailed help on using the Navigator and working your way through the Assessment process.

Traffic Signals Window Assessment and Condition Tabs

Once you've successfully performed your Assessment rounds, the results will be reflected in the Traffic Signals window.

▪ The full *Assessment Results* are shown by date in the List panel of the Traffic Signals window.
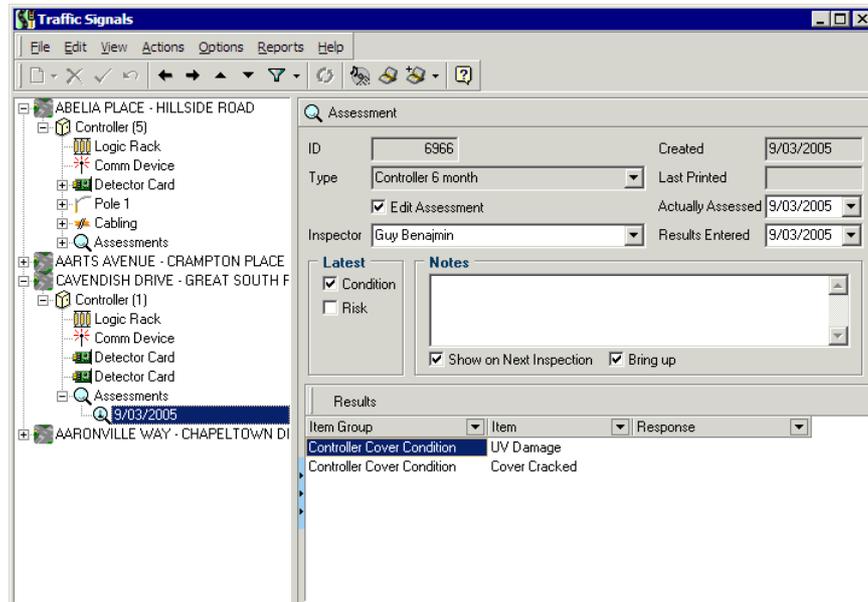
- *Condition and Risk Weights* are shown on the Assessment tabs of the relevant asset Details.
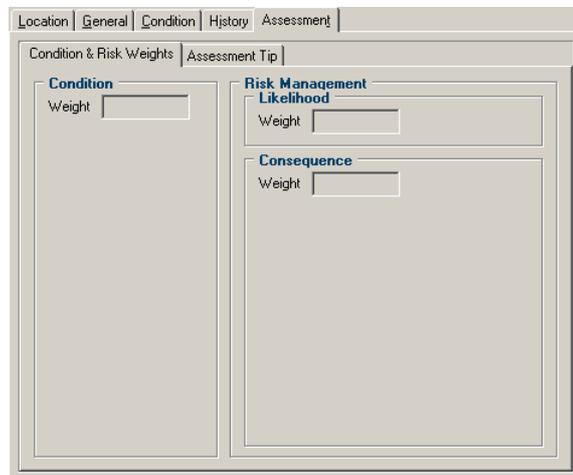
- You can also manually update Condition on the **Condition** tab of each asset in the Traffic Signals window, though this is not recommended unless you're sure of what you're doing - it's always a better idea to update Condition through the standard Assessment process.

This tab allows you to enter **Condition, Risk Likelihood / Consequence** if necessary. You can also enter Asset Life and Guarantee details, and a name and date with regard to Data Collection for audit purposes.

Reports

RAMM Traffic Signals has the ability to generate a number of reports to help with your decision making. This section tells you about these reports.

Some reports are presented in the CJN Decision Cube format, and some reports are generated directly from the RAMM Traffic Signals windows.

You will generally always have the ability to preview the report before you print it, and have the option to save it in other formats (Microsoft Excel Spreadsheets, Quick Reports).

IN THIS CHAPTER

Viewing And Saving Previews and Reports

The reports and previews generated from RAMM Traffic Signals can be saved as separate files in a number of different formats.

This is useful for documentation, or if you need to transfer the report to another location. Once you've saved the file, you can send it anywhere by disk or email.

▶ **How To Save a Preview As a File**

1   In any preview window in RAMM Traffic Signals, click the **Save** button.

2   RAMM Traffic Signals will bring up a window that allows you to set the name and the location of the saved file.
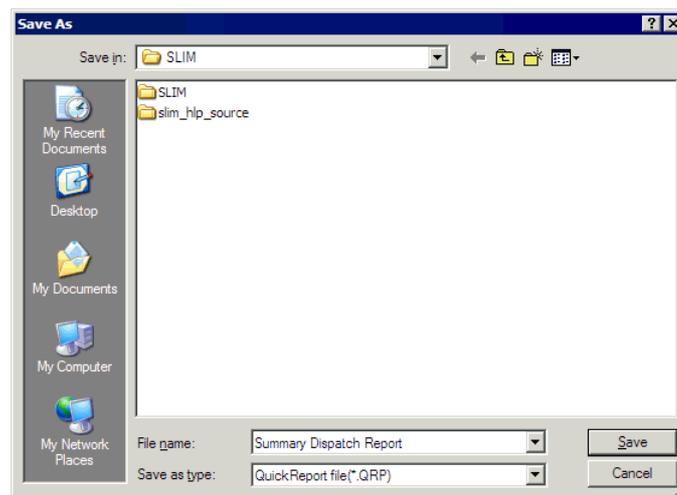
Click the drop-down arrow for the **Save As Type** field if you wish to choose a different file type.
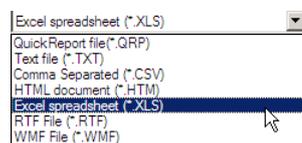
Click **Save** to save your file at the chosen location.

3   Click **Close** to exit the preview window when you are done.

▶ **How to View a Saved Preview File**

1   Click **Reporting > Open Preview file** from the main RAMM Traffic Signals window.

-OR-

If you're already in a preview window, click the **Open** button on the toolbar.

2   You'll see an *Open File* window similar to the window above. Navigate to the location of your file and click **Open**.

3   Click **Close** to exit the preview window when you are done.

Decision Cube

The Decision Cube is a powerful analysis tool for looking at your data in a number of ways. It can be launched from any toolbar that contains the **Decision Cube** button .
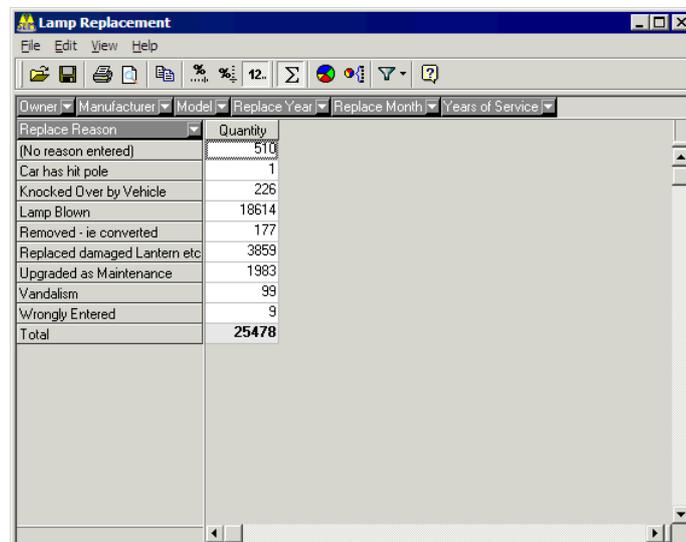
It is essentially a context sensitive pivot table that will populate the cube with available data, and present you with a number of grid headers `Activity ▼` that you can click and drag with your mouse to change the cube views.

The grid header can be filtered to further refine the information they show and save the settings.

The results of your analysis can be printed, or saved in the following formats:

- Microsoft Excel spreadsheet format.

- CJN Decision Cube format.

Decision Cube Toolbar

In addition to the standard RAMM Traffic Signals toolbar buttons, the Decision Cube has some unique controls.

- **Percent view across rows**. Use this button to display percentages horizontally instead of numeric values (see below).

- **Percent view across columns**. This control displays percentages vertically.

> NOTE: If you have switched totals on, the totals of the cells in the direction opposite to that which you have selected should be ignored. For example, if you have selected **Percent view across rows**, the *correct* totals for those rows will show 100%. All other totals should be ignored.

- **Numeric View**. This is the default view, and will show absolute (numeric) values.

- **Show Totals**. This will add totals to both the horizontal and vertical series.

- **Graph**. Generates a graph of the Cube information. You can choose the design and colours of the graph as well.

- **Graph selection**. Will generate a graph for the current selection – you will need to select the cell/s you wish to view in the graph before using this tool.

- **Filter**. You can use this tool to refine your Cube view and save it so that it is applied each time you call up the relevant Cube.

The **View** Menu of the Decision Cube window also has controls for showing you other data items. These controls will be specific to the cube you are viewing.

| ✓ Kilometres |
| m² x 1000 |
| Vehicle Km / Yr |
| Lane kms |

Sorting Grid Headers Horizontally or Vertically

The advantage of the Decision Cube is that you can view your data in different ways. This is controlled by where you place the Header you want to sort by - either horizontally, or vertically.

▸ **To Sort Grid Headers Horizontally**

Drag the Grid Header you require (for example, **Replace Year)** downwards and release it when you see a horizontal green line.

The result of adding that particular grid header will be arranged in horizontal columns as follows:

If this is not the result you expected, you can simply drag the **Replace Year** grid header back to its original position.

▶ **To Sort Grid Headers Vertically**

Drag the **Replace Year** grid header downwards and release it when you see a vertical green line.
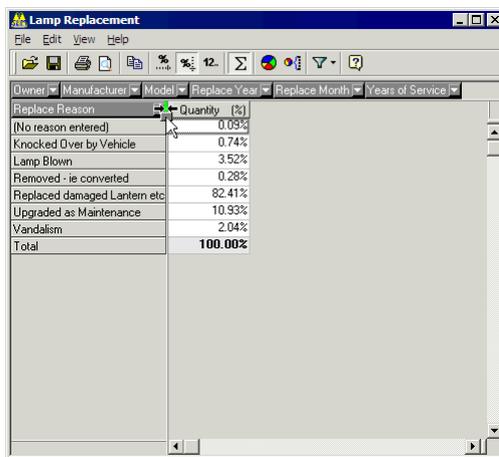
The cube will arrange the same results in vertical columns instead.
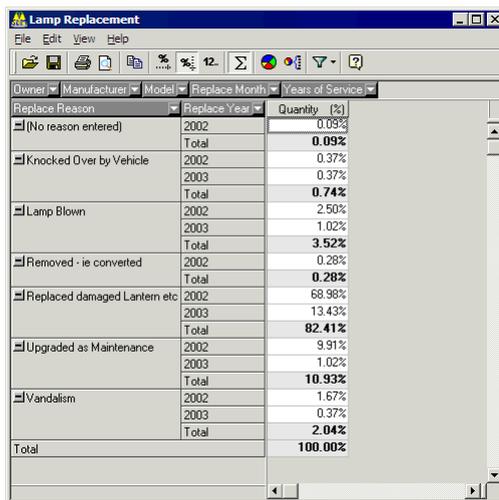
Decision Cube Filter

A filter is available within the Decision Cube to refine the data returned by the Cube and ensure that your Cube isn't cluttered with unnecessary information.

Once you define your filter criteria, the settings are saved into the system so that the relevant Cube will always apply that criteria automatically.

> **NOTE**: When a filter is applied to a Decision Cube View, the window title bar will contain the word *Filtered*. To clear the filter, see below.

▶ **Applying a Filter to a Cube View**

You have a choice of three alternative methods of applying a filter to a Cube View.

1 Click the Filter button drop-down list ▽▾ on the Decision Cube toolbar and click the relevant grid header you wish to define a filter for:
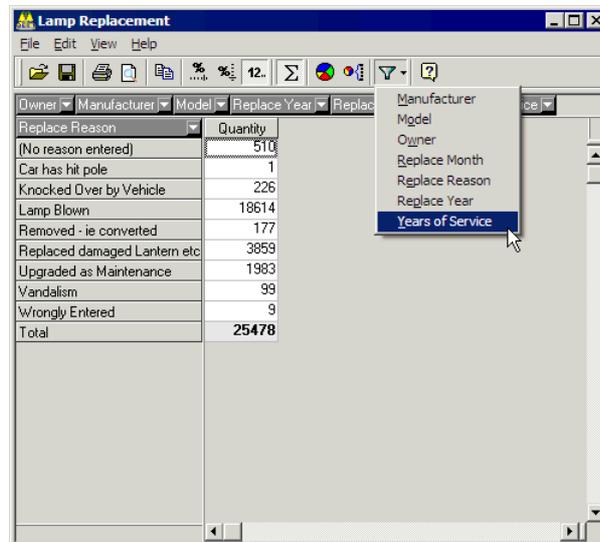
This will bring up a window where you can select and deselect filter fields for the chosen grid header as required. You can also use the **Tick All** and **Tick None** buttons:

and click **Apply** to view the results of your actions

-OR-

2   Right-click any Grid Header Replace Year ▼,

left-click the Filter... button that pops up:
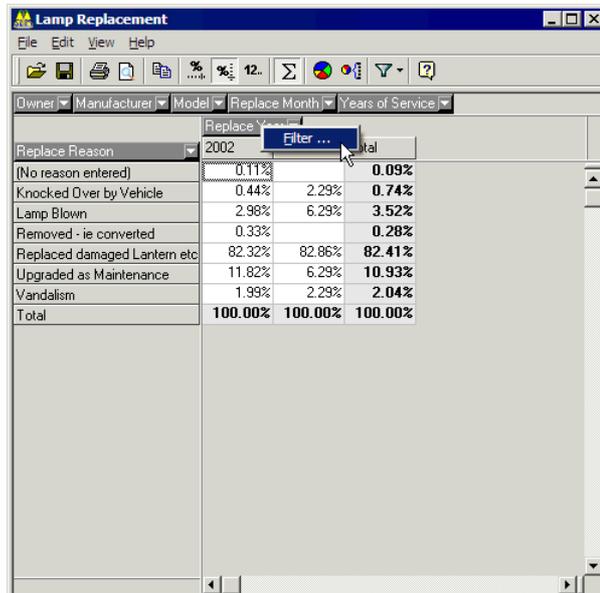
Select or deselect the filter fields as required, and click **Apply** to view the results of your actions

-OR-

3   Click the drop-down arrow at the right hand edge of each grid header ▾,

select or deselect the filter fields as required from the list that pops up:
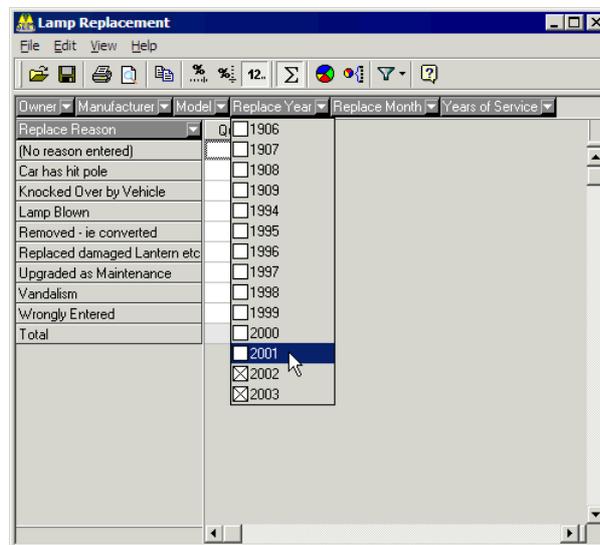
and click anywhere else inside the Cube window to view the results of your actions.

▶ **Returning a Cube View to its Original (Unfiltered) State**

- Click **View > Default Layout** from the Decision Cube **Menu** bar.

Claim Reports

A number of reports are specific to the Claim Maintenance window (see "Claims" on page 159), and are described in more detail below.

Click 🔷 on the toolbar to bring up a Decision Cube report. By default the claim lines will be grouped by *Contract Item* and *Claim Year*. To add more sort fields to your Cube, simply drag a grid header `Activity ▼` of your choice down to the existing grid header for Claim Year. See Decision Cube (on page 203) for more information.

These reports are claim specific- they're relevant only to the claim you're currently viewing. For an analysis of all the claims relevant to your network, see Claim Analysis Report (on page 220).

Claim Group Report

This report summarises claim activity by the various Groups that have been defined, and first generates a Detail report and then a summary of the claims under the two Claim Groups.

▶ **To Generate the Claim Group Report**

1   Select a claim in the Claims window (see "Claims" on page 159).

2   Then select **Actions > Print Claim (CTRL+P)** and select the option to **Generate Claim Group Report**.

> NOTE: If you don't intend to change the status of the claim to *Presented*, untick the option to **Change this claim to Presented**.

3   RAMM Traffic Signals will first generate a Claim Report for the selected claim. You can print or export it. Click **Close** when you are done. ~q why does this report generate first

4   The software will now generate the Claim Group Report.
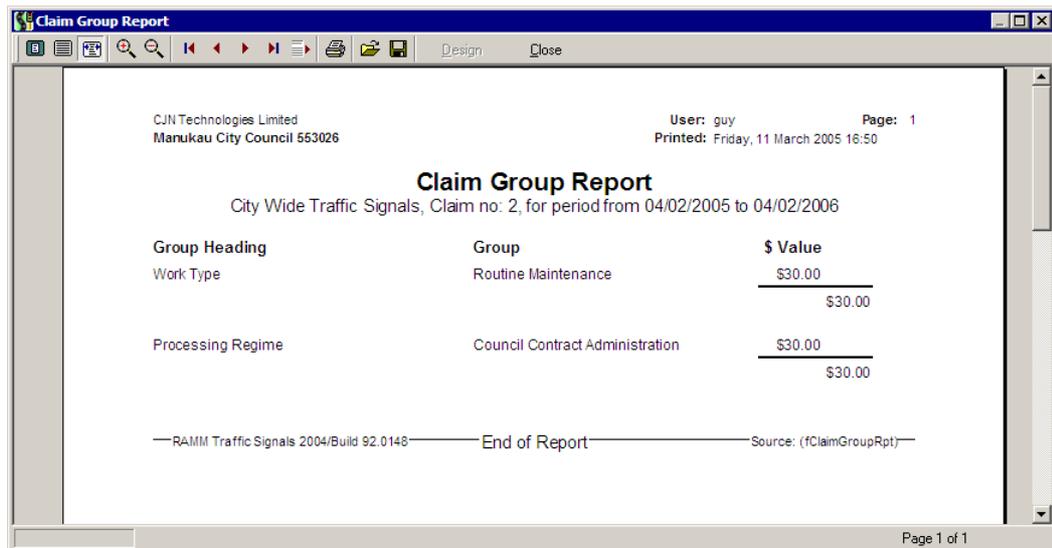
5   You can print or export the report, and click **Close** when you are done.

Claim Details Report

The Claim Details Report shows a detailed description of each claim line and the dispatch(es) it refers to.

▶ **To Generate the Claim Details Report**

1   This report can be generated either from the Claims (on page 159) window menu by selecting **Actions > Claim Details Report**

-OR-

from the Print dialog box (select **Actions > Print Claim (CTRL+P)** and tick the option **Generate Claim Details Report**).

2   Choosing the second option to above will first generate a Detail report for the specific claim. **Preview** and **Print** the report if necessary and then click **Close** to generate the Claim Details Report categorised by Dispatch as below. ~q why the difference in procedure
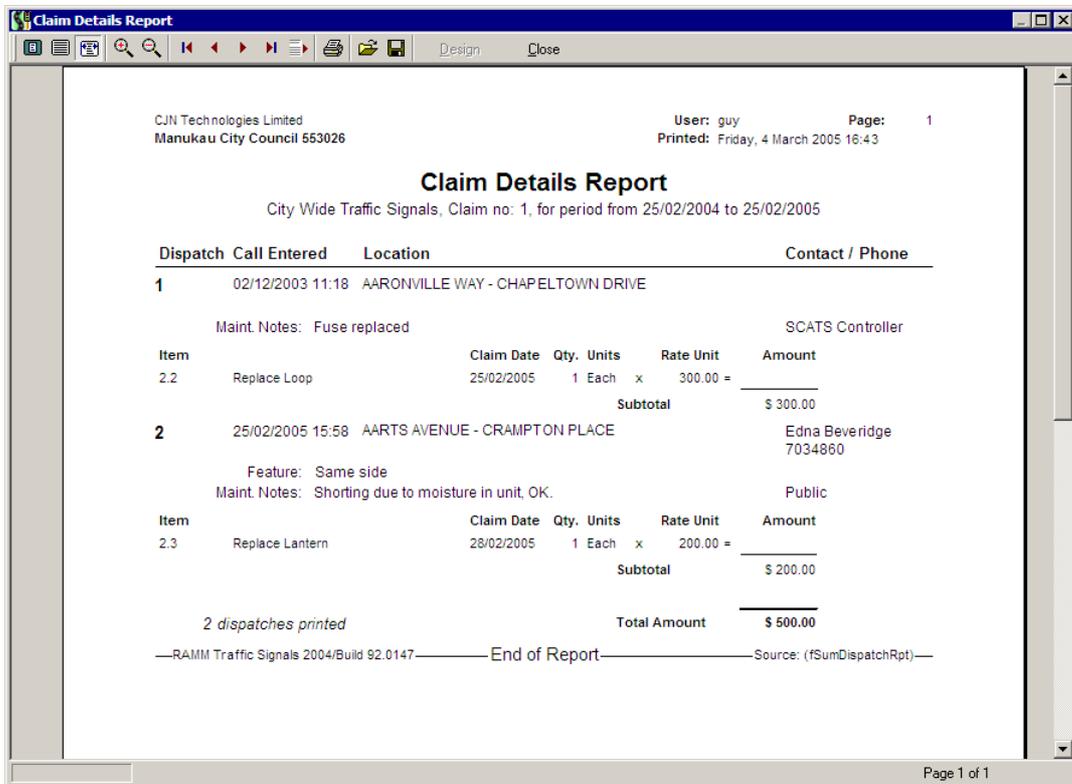
3   **Preview** or **Print** the report and click **Close** when you are done.

Claim Summary Report

This report generates a summary for the selected Claim in the standard RAMM Grid format for the purposes of exporting it.

▸ **To Generate the Claim Summary Report**

1   In the Claims (on page 159) window, select **Actions > Claim Summary**.

2   RAMM displays a dialog with the Description of the selected claim. Click **Preview** to continue.

3   You'll now see a standard RAMM Grid window with a summary of the selected Claim. Use the Grid toolbar to export or print the claim as required.

4   Close the window when you are done.

Claim Group Details Report

This option allows you to select a specific group from the two you have and generate a detailed description of the claims attached to that group.

▸ **To Generate the Claim Group Details Report**

1   In the Claims (on page 159) window, select **Actions > Claim Group Details Report**. You'll first be shown a dialog that gives you the option to choose the Group.
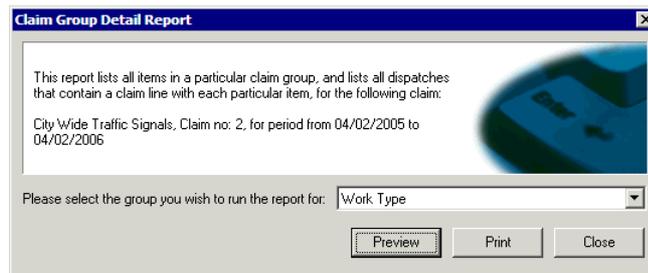
2 Make your selection and click **Preview** or **Print** to view the report.
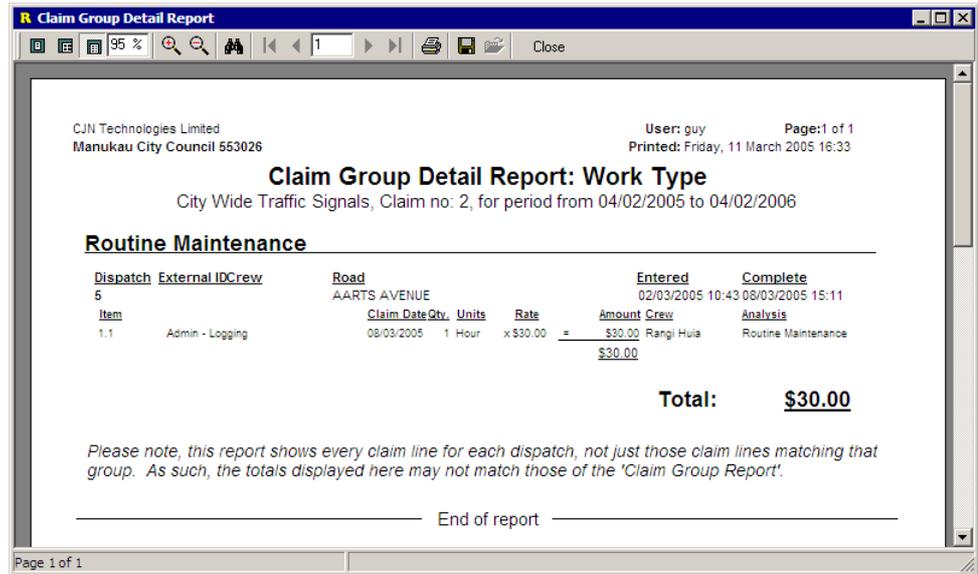
3 When you're done, click **Close**.

Asset Management Reports

The reports available from the Asset Management menu show you information relevant to the utilisation, location and performance of your assets.

Select **Reporting > Asset Management > [Asset]**.

These reports are all in decision cube format, and will show you the selected asset by asset owner / asset type and quantity by default. You can add other grid headers to add more details to the report. For more information on working with cubes, see Decision Cube (on page 203).
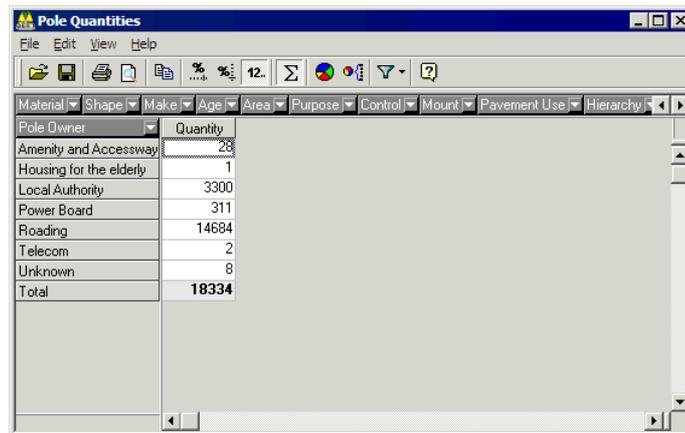
Asset Replacement Reports

Select **Reporting > Asset Replacement > [Asset]** to generate a number of Decision Cube reports pertaining to asset replacement. For more information on working with cubes, see Decision Cube (on page 203).

Warranty Failure Report

The Warranty Failure Report enables you to compare expected against actual asset performance.

Select **Reporting > Asset Replacement > Warranty Failure Report**.
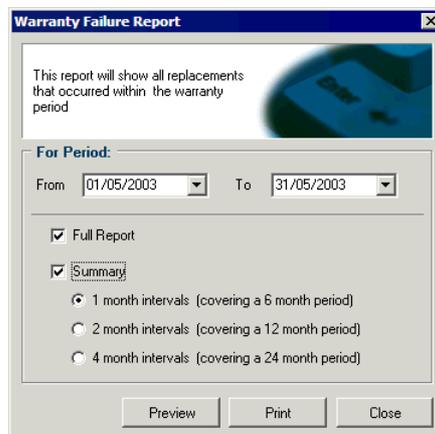
Select a date range and whether you would like a Full Report and/or Summary.

Click **Preview** or **Print** to generate the report.

Auditing

RAMM Traffic Signals has the ability to generate a number of audit reports.

Asset Audit Report

This report shows all changes to assets in the network within a specified period.

Select **Reporting > Auditing > Asset Audit Report** to configure and generate the report.

The default report type setting is **Summary Report**. Selecting **Detailed Report** activates the other query options- assets to **Include**, **Action** taken in relation to those assets and the order in which the results will be displayed (**Order results by**).

Click **Preview** or **Print** to view the report, or **Close** to return to the previous window.

Multiple Claims Per Dispatch Report

Select **Reporting > Auditing > Multiple claims per dispatch** to identify dispatches within a given period linked to multiple claims.

Select the relevant contract, specify a date range and a minimum claim number and set the order of the results in the report.

Click **Preview** or **Print** to view the report, or **Close** to return to the previous window.

Table Statistics Report

This report highlights table size changes over a period of time.

If the table statistics are out of date, RAMM Traffic Signals will prompt you to upgrade the table statistics before generating the report. When the upgrade is finished, choose the relevant report options from the dialog box.

Click **Preview** or **Print** to view the report, or **Close** to return to the previous window.

Contract Management

The **Reporting > Contract Management** menu generates a number of reports that deal with the contract, claims and dispatches.

Claim Analysis Report

The Claim Analysis Report is a general report that analyses all claims relevant to your network.

For specific reports about individual claims, see Claim Reports (on page 210).

Select **Reporting > Claim Analysis Report** to bring up a decision cube that summarises claims on all contract items by Claim Year.

The Claim Amount is displayed by default, but you can add more columns from the **View** menu.
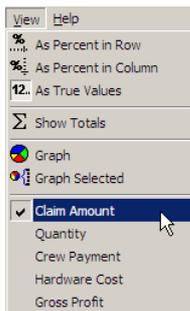
For more information on working with cubes, see Decision Cube (on page 203).

Dispatch Summary Report

The dispatch summary reports gives a summary of the dispatches for the entered period. Dispatches are grouped on entry type and status. This report is contract dependent.

Select **Reporting > Contract Management > Dispatch Summary** from the main RAMM Traffic Signals window menu to generate the Dispatch Summary Report.

You'll first need to choose a contract and a date range:

Click **Preview** or **Print** to view the report, or **Close** to return to the previous window.

Dispatch Detail Report

See Dispatch - Printing Options (on page 120).

Dispatch Analysis Report

This report generates an analysis of dispatches by Call Status and Call Type by default.

Select **Reporting > Contract Management > Dispatch Analysis**.

Unlike the Decision Cube in the Dispatch Entry window, which analyses only the dispatches in the list, this report covers all Call Status categories and Call Types for the active contract.

Since the report is in Decision Cube format, you can add grid headers for a more extensive report.

For more information on working with cubes, see Decision Cube (on page 203).

Dispatch Progress Report

The Dispatch Progress Report will print a progress report for a specific dispatch.

Select **Reporting > Contract Management > Dispatch Progress**.

RAMM Traffic Signals will ask you to select a dispatch to query.
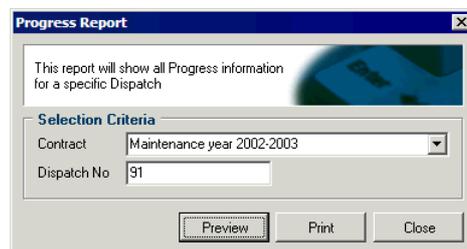
Select the contract and enter the dispatch number.

Click **Preview** or **Print** to view the report, or **Close** to return to the previous window.

Road Names

This option simply generates a list of all the road names in your database.

Select **Reporting > Road Names** from the main RAMM Traffic Signals window.

Faults by Intersection Report

This report shows you faults categorised by intersection.

From the main RAMM Traffic Signals window, select **Reporting > Faults By Intersection** to launch it.
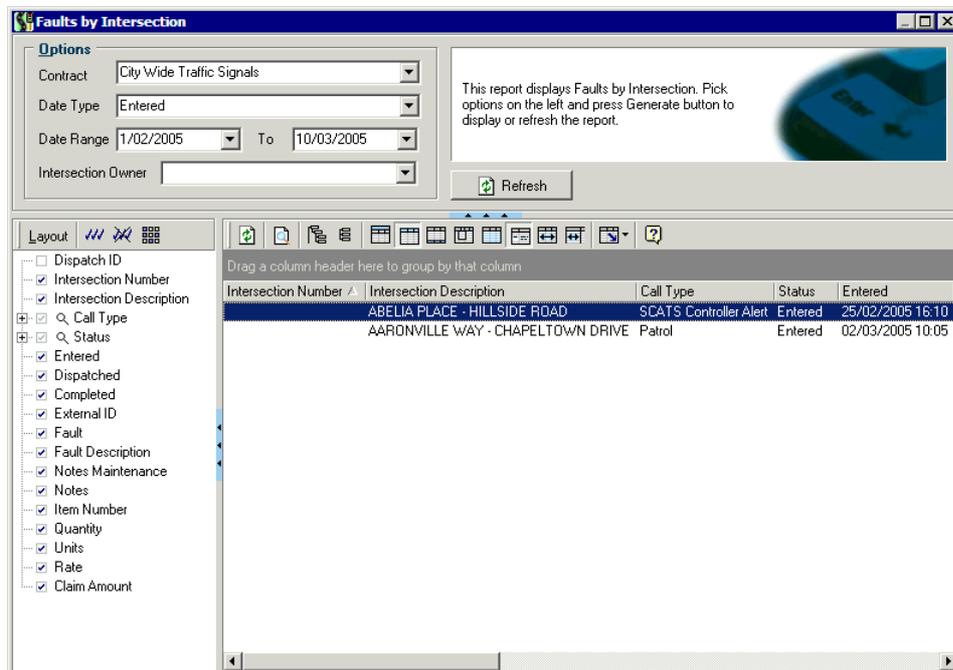
Make your selections in the *Options* panel and click the **Refresh/Generate** button.

You can print or export the report from the Grid toolbar.

Faults by Job Report

This report shows you faults categorised by jobs as a result of being raised from Dispatches.

From the main RAMM Traffic Signals window, select **Reporting > Faults By Job** to launch it.
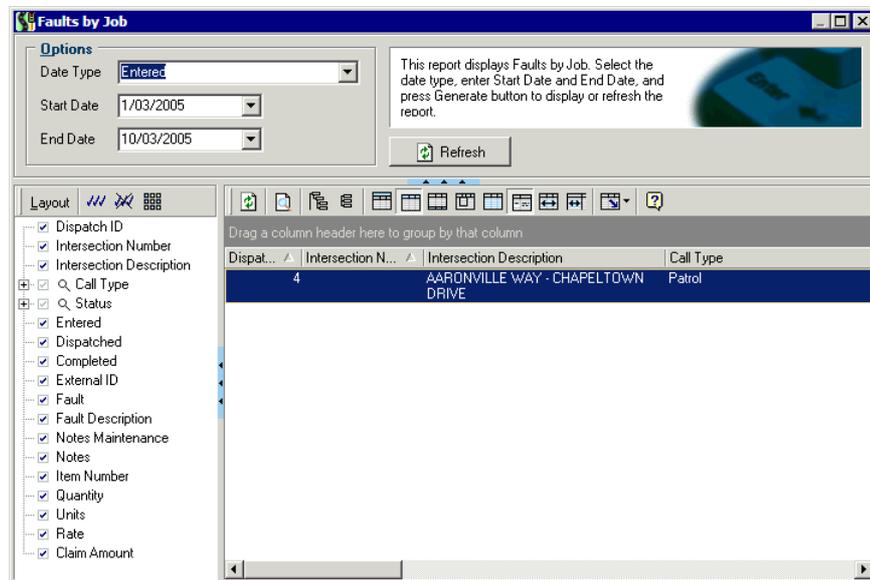
Make your selections in the *Options* panel and click the **Refresh/Generate** button.

You can print or export the report from the Grid toolbar.

Controlled Intersections Detail Report

This report simply shows you a detailed inventory of your Traffic Signal assets on the currently displayed Intersections in the Traffic Signals window, with options to preview and print it.

In the Traffic Signals window (on page 134), select **Actions > Controlled Intersections Detail Report** from the menu.

Click **Preview** or **Print**, or **Close** to return to the Traffic Signals window.

Mapping

This section describes the RAMM Mapping function.

IN THIS CHAPTER

Mapping – Overview

Mapping is a powerful tool for visualising your data. It facilitates viewing and selecting your data in the context of roads, boundaries, geographical features, places and properties.

You can use map tools bring up information on a selected area, measure distances, and display the RAMM displacement and offset of a given point.

Map Details are Synchronised

The Map window is synchronised with other windows. When you select a feature in the map which has a corresponding record in an open Grid or Detail window, that record's details will automatically be shown.

RAMM Applications Using Mapping

RAMM Mapping is currently available for RAMM, SLIM (Street Light Inventory Management) Signs and RAMM Traffic Signals.

Setting Up and Loading the Map

To use Mapping you need to purchase the appropriate licences - for more information, contact us (see "Contacting CJN Technologies Ltd" on page 23).

If you're using the RAMM Hosting service, Mapping will be available as soon as you log in. If you're using an installed copy of the software the map data will be sent to you on CDROM.

If you're not sure how to install Mapping, contact us (see "Contacting CJN Technologies Ltd" on page 23).

▸ **To Set Up Mapping**

1   Launch Mapping by clicking the **Show map** ⬙ button on the toolbar. If you haven't used Mapping before, you'll be asked to select a map.

2   Select your map.

> TIP: Select **Automatically show map** if you wish Mapping to automatically load
> the map whenever you enter the relevant window. For more
> information, see Saving Layouts and Loading Maps (on page 255).

3   Click **OK** to load the map.

> NOTE: You may see a message that the Map Index needs to be recalculated.
> Let this process finish before you start working with Mapping.

Map Window

This is the Map window. Initially you will see only the toolbar and the main Map window.
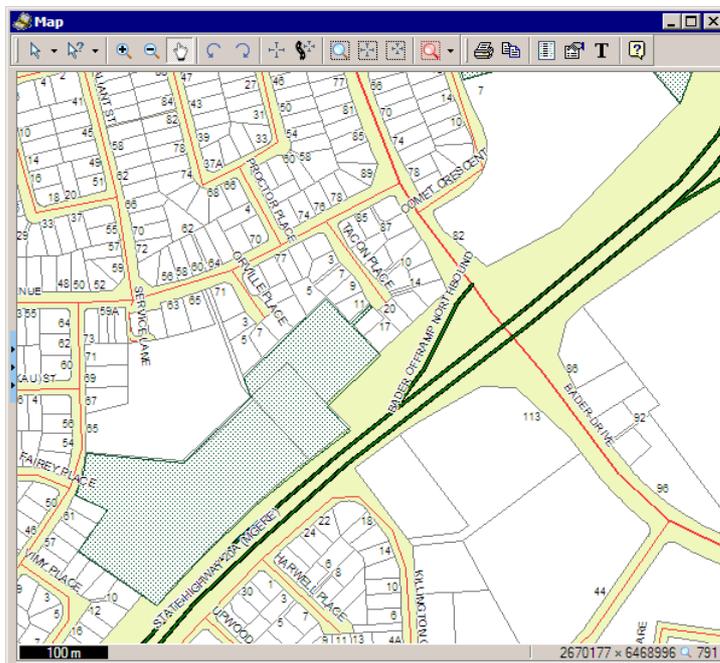
While you're working with the map, the *Status Bar* at the bottom shows you the current scale of the map, location information and a numerical zoom level.

Map Window Toolbar

Here's a "quick reference" briefly describing the toolbar controls.

Some functions on the toolbar are accompanied by drop-down lists. You can click the drop-down arrow ⬝ on the right of the respective toolbar button to select another tool. The tool will remain selected until you change to another.

At any stage, click the **Help** button 🔲 or press **F1** on your keyboard for context sensitive help.

> **NOTE**:   Most controls described below can also be accessed by right-clicking in the Map window and then using the pop-up menu to select the function you require. In the RAMM main window, **Map** is also a menu item from which you can access all the controls described below.
>
> In SLIM, Signs and Traffic Signals, the Map window toolbar has an additional button 🔲 to quickly reveal the application window you launched Mapping from. You can also use ALT+S to quickly switch between the Map window and the application window.

Selection Tools

See Selecting Items on the Map (on page 239).
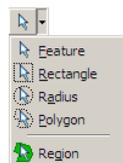
- ⬝   🔲 **Select**. Select one map feature.

> **NOTE**:   All selection tools below will automatically enable Multi-select mode.

- ⬝   🔲 **Rectangle**. Select all road features within a rectangle.

- ⬝   🔲 **Radius**. Select all road features within a radius.

- ⬝   🔲 **Polygon**. Select all road features within a polygon.

- ⬝   🔲 **Region**. Click to select all features within the selected region.

Query and Annotation Tools

See Getting Information from the Map (on page 240).

- **Query Point**. Display details of all map items near selected point.

- **Pick Nearest**. Pick the nearest road and display details- for example, RAMM Road ID, Displacements, X/Y Coordinates, Offset.

- **Measure**. Measure the distance between two points.

- **Annotations**. Click to add notes to the map. See Making Notes on the Map (on page 242).

Zooming, Panning and Rotating Tools

See Zooming, Panning and Rotating the Map (on page 243).

- **In**. Zoom into map.

- **Out**. Zoom out in the map.

- **Pan**. Pan around the map.

- **Rotate Left**. Rotate the map counterclockwise.

- **Rotate Right**. Rotate the map clockwise.

Map View Configuration Tools

See Defining and Loading Map Views (on page 244) for a detailed description of these tools. To use them, you should already have selected a feature or features on the map (see "Selecting Items on the Map" on page 239).

- **Go to a view**. Go to a specified centre point and zoom level.

- **Go to a road**. This button brings up a dialog to help you go directly to a road and displacement.

- **Zoom to selected features**. To zoom to any map item/s you have already selected.

- **Center on selected features**. You'll use this option if you'd like to position the item/s you have selected in the centre of the screen. This will not change the zoom level.

- **Show selected features**. This is similar to the control above, but is useful when you just want to bring things into view and not necessarily centre them in your Map window. This view also does not change the zoom level.

Automatic Map View Configuration Tools

See Automatically Showing Selected Map Items (on page 247).
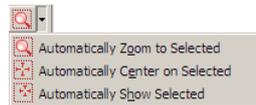
- **Auto Zoom**. Automatically zoom to selection.

- **Auto Show**. Automatically bring current selection into view.

- **Auto Center**. Automatically centre on selection.

Printing and Copying Tools

- **Print**. Brings up the Print Map Options window (see "Printing the Map" on page 263).

- **Copy the Current Map Area to the Clipboard**. Copies the currently visible map area to the Windows clipboard so that you can paste or save it as a bitmap image.

Map Layer Panel Tools

Click the **Map Layer** button to open the Map Layer panel (on page 248). This has the same effect as using the panel sizer (see "Using Collapsible Panels" on page 30). It displays a legend and a number of controls for Map Layers on a separate toolbar.

- **Import Layer** (see "Exporting and Importing Map Layers" on page 251).

- **Export Layer**.

- **Delete a Layer**.

- **Move Layer Up**.

- **Move Layer Down**.

- **Layer Settings**.

Map Options and Tools

The Map Options window is where you'll go to set the current layout you're using, select a map to use with your database or run processes like map validation or indexing. Click the **Map Options** button on the Map window toolbar to launch the window, and select the option you require in the **Selection Panel** on the left. For more information, see Map Options window (on page 254).

Map Title Tool

- **T** Click this button to show or hide the title of the map.

Adding Assets to the Map

Once you've loaded a map (see "Setting Up and Loading the Map" on page 229), you can add your assets to it. You can also configure Mapping to do this automatically.

▶ **How to Add Assets to the Map**

1   In *SLIM, Signs or RAMM Traffic Signals*, click the **Add to Map** button on the main window toolbar of the application that you are using

-OR-

in *RAMM*, select **Actions > Add to Map** from either the Grid window or Detail window menu.

2   Choose either **Add all items** to add all items currently listed in the List panel, or **Add selected items only** if you've selected specific items in the list to load.

> **NOTE**:   You can also change the layer name if you wish. Mapping will load the name of the asset you are adding to the map by default - in the example above, since we are adding street lights, it is *SLIM*. If you select a layer name that already exists, you can choose to **Clear existing items** on the layer before loading the current data.
>
> If you wish to change the settings for the layer, such as the icons or labels used to represent the street lights, see Changing Map Layer Settings (on page 252).

3   Click **OK** to begin loading the items to the map or **Cancel** to abort the process. You'll see a progress window while this happens. If you're adding many assets, this can take some time.

4 Mapping will now add the assets to the map and show them to you. If you have configured Mapping to automatically zoom to the selected assets (see "Automatically Showing Selected Map Items" on page 247), what you select in the relevant Grid or Detail window will be synchronised with the Map window.
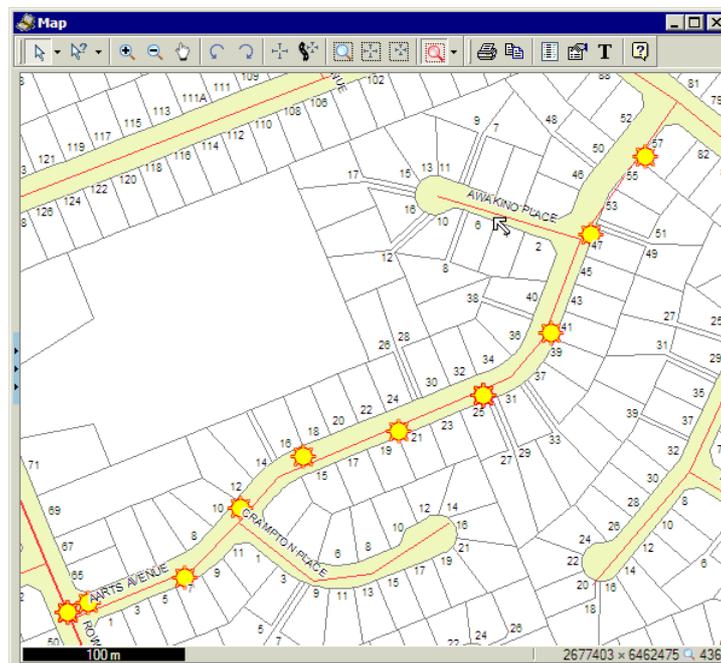
If you click the **Show/Hide Map Layer Panel** button on the toolbar, you'll also see that the legend now shows the layer you just added in the list. See Map Layer Panel (on page 248).

TIP: When adding assets with length to the map, it can sometimes be difficult to see them- especially if they are clustered together and use the default polygon style. You can change layer settings (see "Changing Map Layer Settings" on page 252) for these assets to be added as lines, and if necessary add markers to each line ending to emphasise the length.

Changing Map Layer Settings While Adding Items to the Map

You can also change Map Layer options while adding items to the map.

For the procedure below, you will need to have started the process of Adding Items to the Map (see "Adding Assets to the Map" on page 234).

▶ **To Change the Map Layer Settings While Adding to Map**

1   In the **Add to Map** dialog box, click the **[...]** button next to the **Settings** field.

In the example above, we've defined a filter to bring up all Carriageway Surface records on a selected road, so the default layer name comes up as *Carriageway Surface*.

2   This will take you into the Map settings window.
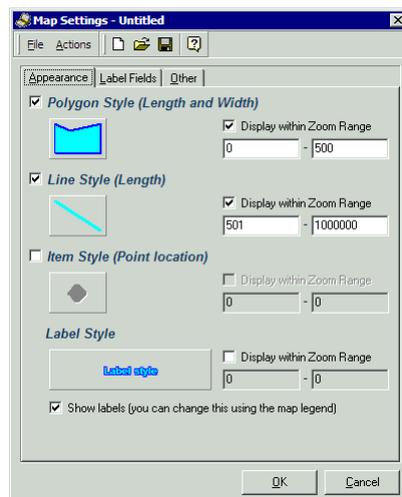
You can now edit the style objects for the layer. See Changing Map Layer settings (on page 252) for more information on the **Appearance** tab controls and

what they do. If the asset you're adding to the map has both *area* and *length*, as above, you'll see number of style options. Other assets may show you just two styles – for example, *line* and *item*. Items that are not ticked will be disabled.

3   You can also select which fields will display on the map labels for the layer you are adding.
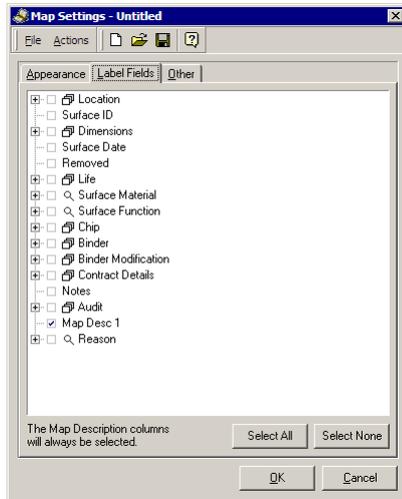
The fields correspond to the asset.

4   You can also set some other options on the **Other** tab.
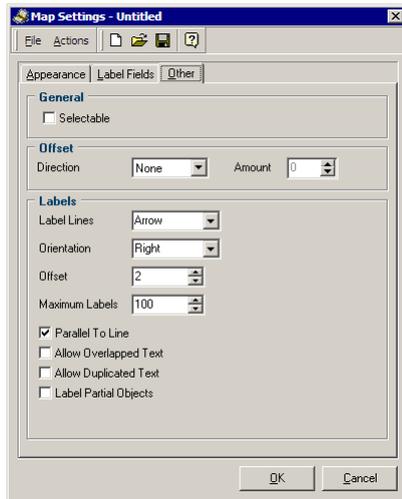
5   To save your settings for future use, click the **Save** button 🖫 at the top of the Map Settings window and choose a filename and location for the map settings file (.msf).

6   To apply the settings, click the **OK** button. You'll return to the Add to Map dialog, and you can proceed to add your assets to the map.

Working with Mapping

This section describes common mapping tasks.

> **NOTE:**   Most controls described below can also be accessed by right-clicking in the Map window and then using the pop-up menu to select the function you require.

Selecting Items on the Map

Before you can view an item on the map you need to select it. The selection tools allow you to select features and assets in a number of ways.

If you don't see the item you wish to select, you may need to adjust the Zoom level (see "Zooming, Panning and Rotating the Map" on page 243).

If you can see it but not select it, you may need to check its selection status in the Map Layer Panel. See Map Layer Panel (on page 248).

In RAMM, the selection tools are synchronised with any RAMM windows you may have open. If you prefer to select your assets in the Grid or Detail window you're working in and have the map show them automatically, see Automatically Showing Items on the Map (see "Automatically Showing Selected Map Items" on page 247).

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).
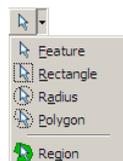
- ⊾ **Select** (select one map feature). Click this control and then click on the Map item to select it. Use CTRL + click to add to your selection (to select multiple items - the mouse will show a + next to the arrow) and SHIFT + click to subtract from your selection (to deselect from multiple selections - the mouse will show a - next to the arrow).

> **NOTE:**   All selection tools below will automatically enable Multi-select mode.

- **Rectangle** (select all road features within a rectangle). With this tool selected you can click and drag your mouse to select all items within a rectangular area.

- **Radius** (select all road features within a radius). Click and drag to define a circular area, and select all items within it.

- **Polygon** (select all road features within a polygon). To select an irregular area. Single clicks will extend the selection area. Double-click to end drawing the area and select all items within it.

- **Region**. You can click on a large map item and use this tool to select all items within that area. This is particularly useful, for example, if you've loaded iwi boundaries and wish to find all roads within them. Selecting the iwi region will automatically select all roads within it.

Getting Information from the Map

The query controls on the Map window toolbar help you get information from your map that isn't immediately visible.

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).

- **Query Point** (display details of all features near selected point). Select this control and click anywhere to bring up a window with the details of all road features near the selected point. If you click exactly between two item, Mapping will bring up information for both.
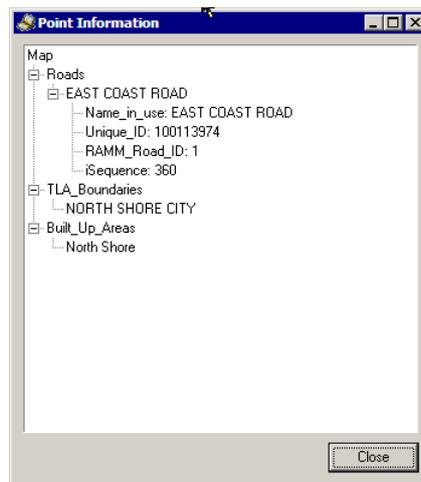
- **Pick Nearest** (pick the nearest road and display details). Select this control and click anywhere to bring up details about the nearest road.
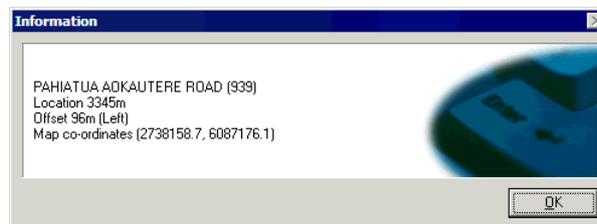
- **Measure** (measure the distance between two points). After selecting this control, click and drag your mouse to draw a line between two points anywhere on the map, and get an instant readout of the distance in metres.

TIP:	While clicking and dragging, your *status bar* at the bottom right of your Map window will run a continuous "live" readout of the distance.

Making Notes on the Map

This useful tool allows you to add notes to your map.

▶ To Add Annotations to the Map

1   From the Query Tools drop-down menu
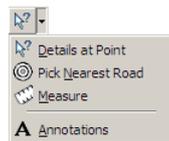
click the **A** **Annotations tool** to bring up a dialog box with instructions.
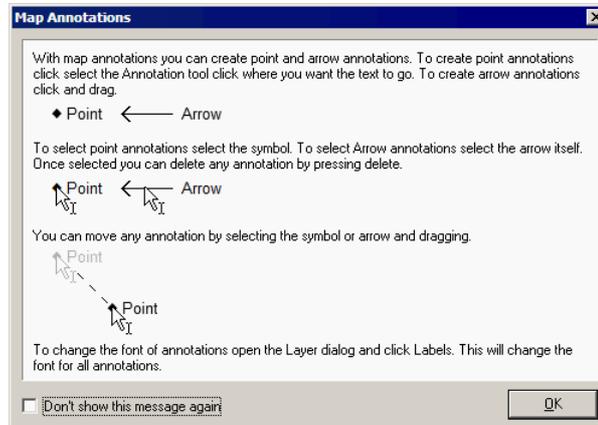
2   Either:

- Click anywhere to add an annotation on a point on the map, or

- Click (where you want to place the note) and drag (to the point you wish to describe) to add an annotation with an arrow callout.

3 Type your note into the box that appears. The square below your note shows you which type of annotation you've selected.
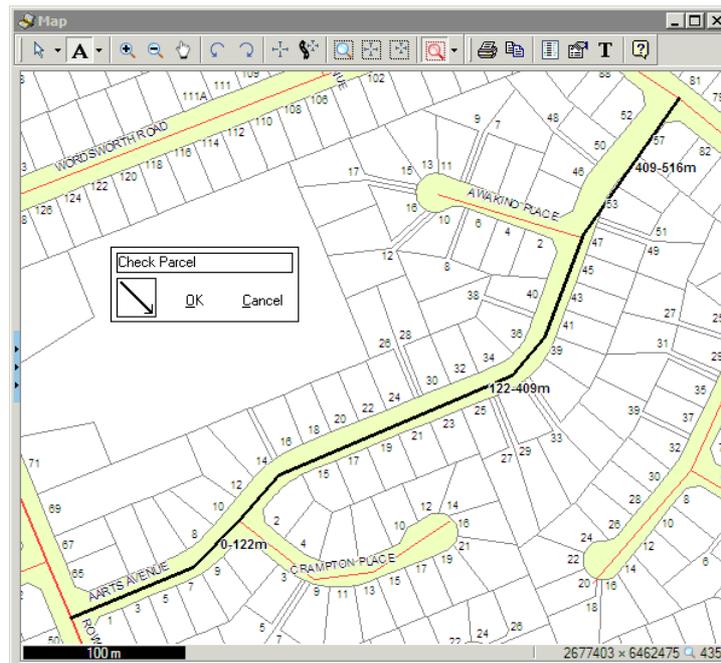
4 Click **OK** to add your note into the Annotations layer and to the map. You can add as many notes as you wish.

You can also export the annotation layer (see "Exporting and Importing Map Layers" on page 251).

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).

Zooming, Panning and Rotating the Map

Use these controls to move around the map area.

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).

- **In** (zoom into map). Zoom in to enlarge the view, centering the map on your mouse cursor. Note that your mouse cursor changes to indicate the tool you've selected. To temporarily reverse the zoom direction and zoom out, hold down the CTRL button as you click.

- **Out** (zoom out in the map). Reduce the view by zooming out, centering the map on your mouse cursor. To temporarily reverse the zoom direction and zoom in, hold down the CTRL button.

- **Pan** (pan around the map). With this tool active, click on any area of the map and drag while holding the mouse button down to move the entire map.

- **Rotate Left** (rotate the map counterclockwise).

- **Rotate Right** (rotate the map clockwise).

> CAUTION: Be careful when rotating the map, as you cannot see compass points. If you want to return the map rotation to 0 (North = UP), use the **Go to a view** control (see "Defining and Loading Map Views" on page 244).

Defining and Loading Map Views

The **Go to a View** button on the Map window toolbar launches a window to define specific map views that you can save and load later. The **Goto** and **Close** buttons work with the settings immediately above them, which set *co-ordinates, zoom* and *rotation*. You can either enter number values directly into these fields, or go to a view on the Map window using the zoom and selection tools and then save the view here with a name of your choice.

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).

▸ **How to Define and Load Map Views**

1   Click the **Go to a view** button .
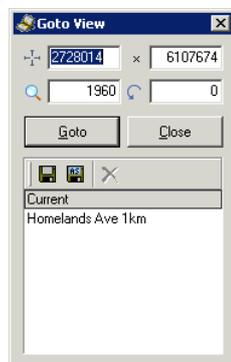
The dialog show you the **Current** view displayed on your map as well as any other views you may have defined earlier.

2   You can now configure and define the view you require.

You can enter X and Y co-ordinates, a *Zoom level,* or a *Rotation* number in degrees. Click **Goto** to go to the specified view.

Once you're satisfied with the view you've generated, you can save the view with a name of your choice.

3   Click the **Save** button 🖫 if the view has not been saved before, or the **Save As** 🖫 button if you wish to save an existing view under another name.
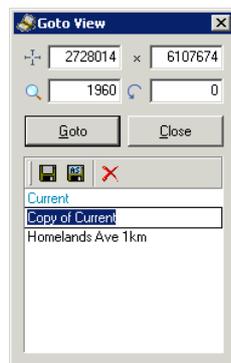
Mapping will duplicate the view as **Copy of Current**. You can now give the view a unique name of your choice.

You can rename any view you have defined by right-clicking the view and choosing the **Rename** option, or pressing **F2** on the keyboard.
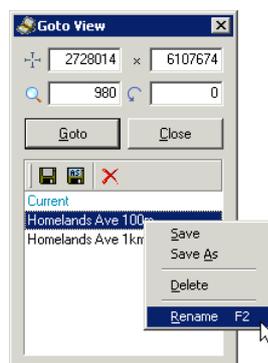
4   Press **Enter** on your keyboard or click anywhere inside the view name window to save the view.

5   Click **Goto** button to load the selected view, or **Close** to return to the Map window.

▶ **Go to a Road**

This control helps you go directly to a road and specified displacement.

1   Click the **Go to a road** button 💠 on the Map window toolbar.

2   In the **Road** field, either:

Choose the road you wish to view from the drop-down list

-OR-

Type the road name

-OR-

Type the Road ID.
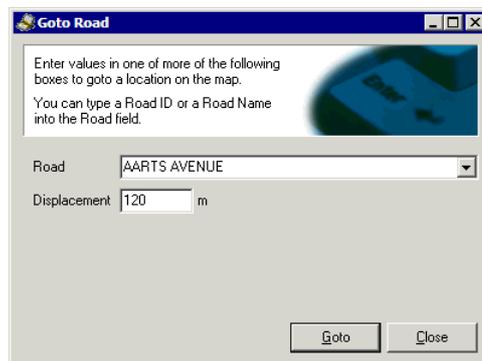
You can also specify a displacement along the road.

3   Click **Goto** or press **Enter** on your keyboard, and Mapping will automatically zoom to your choice.

Automatically Showing Selected Map Items

These controls will automatically synchronise what the map shows to what you select in any other Grid or Detail window, with the desired zoom, centering or selection option you choose.

The buttons in this list will remain selected (button down) until you deselect them (button up) or select another automatic Show Selected control.

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).
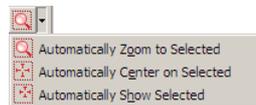
- **Auto Zoom** (automatically zoom to selection).

- **Auto Show** (automatically bring current selection into view).

- **Auto Centre** (automatically centre on selection).

Changing the Map's Appearance

The features on your map, and the symbols, colours, lines and shapes representing them are designed to present the information to you in a clear and logical way.

If you need to change these properties, however, you can do so at two levels.

- To control which features are included in the map, and what you can do with them, set their status in the Map Layer Panel (on page 248).

- For more control over appearance, including defining colours, symbols and shapes, you can change Map Layer settings (see "Changing Map Layer Settings" on page 252).

Each type of road asset - like Roads or Places - is added to the map as a separate layer. When you add the street lights to the map, it will have its own layer. You can change the appearance of each layer separately. Its appearance settings are also retained when you save the map (see "Saving Layouts and Loading Maps" on page 255).

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).

Map Layer Panel

The map that you see in the Map window is actually made up of a number of map layers, each stacked on top of the other. The layers may sometimes block other layers (and map items) from view, particularly if you have customised the appearance of a given layer. You can always change the order of a given layer (see below).

The expanded map layer panel image below shows how the layers are structured. *Land*, logically, is right at the bottom, and everything else is stacked upwards from it to build a clear and representative picture of the relevant area.

Click the panel sizer control at the left edge of the Map window

to see the layers and how they are arranged, as in the image below.

The Map Layer panel control is more than a simple description of the map layers - it enables you to show or hide them, make them selectable, and show labels.

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).

| NOTE: | If you change the filtering options in the Grid or Detail window containing the items you are viewing on the map, those records will not be automatically shown when you select the corresponding map item. You'll need to add those new records to the map. |

▶ **To Work with Map Layers**

1   Click the **Show Map Layer panel** button ▣ on the Map window toolbar to bring up the Map Layer panel.
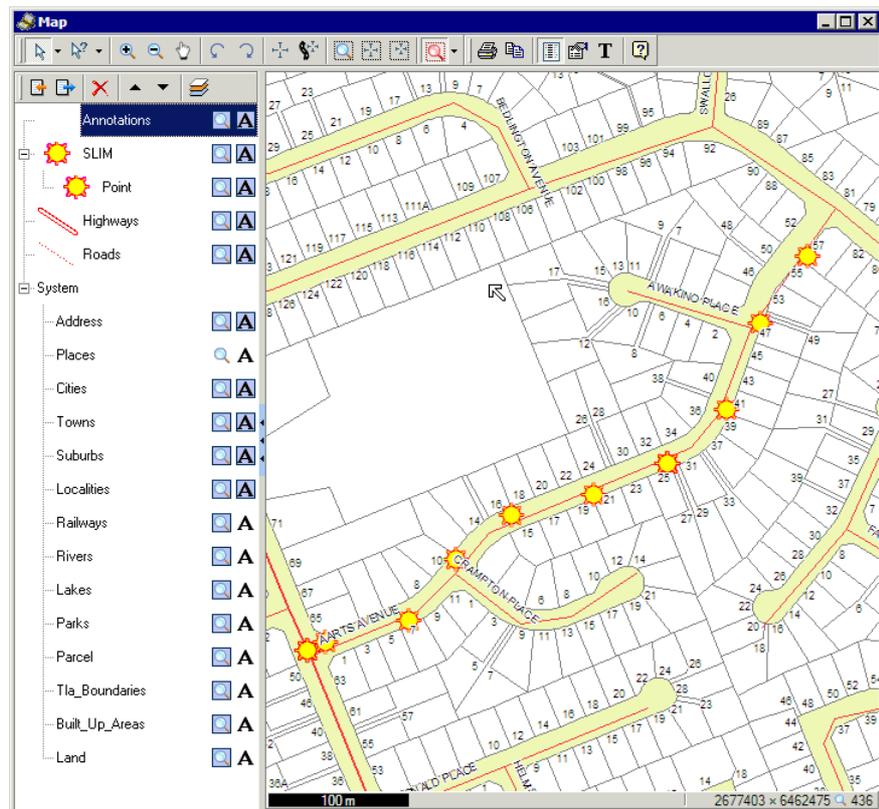
We've expanded the view to display *System* layers in the image above- usually you will see only the default layers *Highways* and *Roads,* and any layers you may have just added (*SLIM* above).

The key next to the map item (*Highways, Roads* and *SLIM* above) indicates how they are currently displayed on the map- what icons, lines and colours they are using. To configure these settings, see Changing Map Layer Settings (on page 252).

2   Set the options for each layer.

- 🔍 Make the layer *Visible*.

- **A** Show *Labels* on the respective layer.

> **NOTE**:   Earlier versions of the Mapping software included a *Selectable* option. This is now configured manually by changing map layer settings (on page 252).

When you select an option for a layer it is highlighted in *blue*. In the example above, *all layers* except Places are *Visible. Labels* are switched on for *Annotations, SLIM, Highways, Roads, Address, Cities, Towns, Suburbs* and *Localities*.

> **TIP**:   Don't switch labels on for more than a layer or two at a time. The labels on higher layers can obscure details of the lower layers.

3   Close the window by collapsing the panel or clicking the Map Layer panel button ▯. Your changes are applied to the map automatically as soon as you make them.

▶ To Make Map Layers Visible By Changing Their Order

- If you can't see the labels for a particular map feature when you look at the map, other features on a higher layer may be obscuring them. To move the affected layer higher up the stack and make it visible, use the **Move Layer Up** ▲ and **Move Layer Down** ▼ buttons.

▶ To Delete a Map Layer

- To delete a Map Layer, select the layer and click the **Delete Layer** ✕ button.

> **CAUTION**:   Be careful when deleting layers, as you will not be able to restore them unless you've exported them beforehand (see "Exporting and Importing Map Layers" on page 251). You cannot delete System layers.

Exporting and Importing Map Layers

Mapping lets you export or import map layers in the MapInfo .tab format. You can also export them as plain text files.

> TIP: If a particular layer of your map takes a while to set up, and you know that the data in that layer won't change often, you can export that layer and then re-import it when you need it. Importing a layer is faster than generating the layer again.

▶ **To Export Map Layers**

 1   Open the Map Layer panel (on page 248).

 2   Select the layer you wish to export.

 3   Click the **Export Layer** button ⬜.

 4   Define a location and filename for your layer .tab file.

 5   Click **Save** to save the file and return to the Map window.

▶ **To Import the Map Layer**

 1   Open the Map Layer panel (on page 248).

 2   Click the **Import Layer** button ⬜.

 3   Browse to and select the .tab file to import.

 4   Click the **Open** button to import. The layer is added to the Map window, and you'll see it when you next open the Map Layer panel (on page 248).

Changing Map Layer Settings

You can change Map Layer settings in two places.

- You'll most often want to change Map Layer settings *after* the details have been added, in the *Map Options* panel. This is described below.

- You can also change Map Layer settings at the point of adding items to the map (see "Changing Map Layer Settings While Adding Items to the Map" on page 237). You can choose how those details are shown on the map, *before* they're added to it.

For a quick reference to the Map window controls, see Map Window Toolbar (on page 231).

Map Layer Settings Window

To bring up this window, open the Map Layer panel (on page 248) and click the Map Layer settings button .
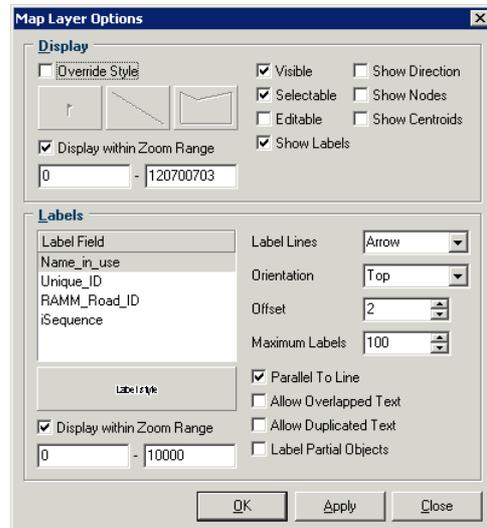
This window allows you to set the global options for the layer such as the **Zoom Range** for the layer objects or labels, whether the layer objects will have arrows to **Show Direction**, whether they will **Show Nodes** at their start and end points, and whether they will **Show Centroids** (markers in the centre of objects with an area). The availability of objects sometimes depends on the type of layer you have selected.

You also have some layer label specific options. The **Maximum Labels** setting, and options to **Allow Overlapped Text**, **Allow Duplicated Text** and **Label Partial Objects** are to help reduce label clutter in your Map window. You can also choose whether the **Label Lines** will be simple or show arrows, the label **Orientation** in relation to the object,

whether the label will be displayed **Parallel to** the object and how far away from the object it will be (**Offset**).

Map Style Objects

It's useful to have some idea of the different objects you can customise before you start changing their settings. The four types of style objects you can customise are listed below, together with the settings you can edit.

Tick **Override Style** if you wish to change the style of the layer - the style button next to it will not be active until you do so.

> CAUTION: You can configure individual settings for *each* of the following categories for *each* layer. That gives you very wide range of options for customising the map, so please exercise caution and change only the style objects you absolutely need to.

▪   **Symbol**. Click this button to bring up a separate dialog box to change the style of the symbols that are displayed on the respective map layer.
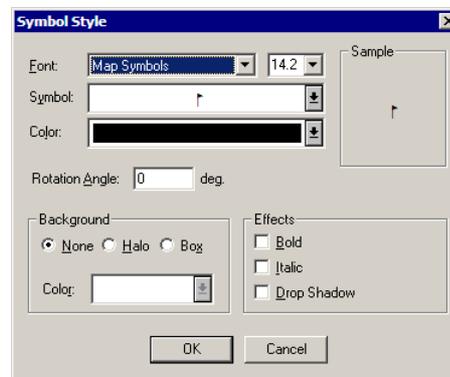
▪   **Line**. Click this button for style settings relating to lines on the respective layer.
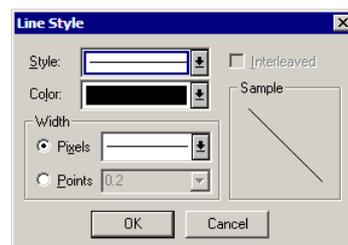
- **Region**. This control will give you access to style settings relating to object regions on the layer.
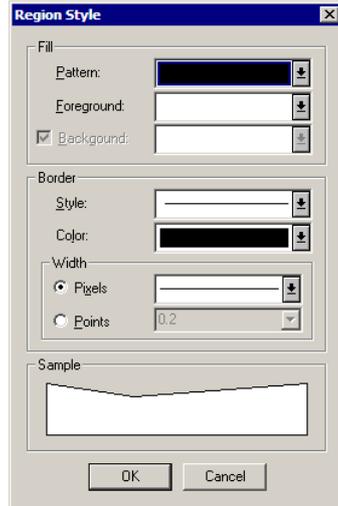
- **Label**. This button brings up a dialog box to set Label style options.
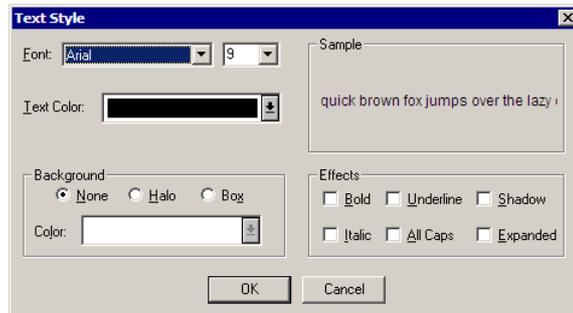
Map Options Window

Click the **Map Options** button on the Map window toolbar (on page 231) to access a number of options related to saving and loading map layouts, and validating map data.

The selection panel on the left hand side of the window allows you to select the tool you require.

Saving Layouts and Loading Maps

The **Maps** section of the Map Options window contains controls to save map layouts and load maps. The map layout you're currently using will be selected, and any other layouts you have saved will be available in the list.

The original layout will always have *(Original)* after the file name. For your security, this file cannot be deleted.

Mapping saves a map layout as MapInfo GeoSet file with a .gst file extension. It will retain all layout, view and layer settings.

Once you've saved a map layout, you can configure Mapping to load it instead of the default map.

Saving, Deleting and Loading Map Layouts

When you've made changes to a map layout, you'll most likely want to save it. For example, you may have added new layers to the layout (see "Adding Assets to the Map" on page 234), changed the zoom levels (see "Defining and Loading Map Views" on page 244), or customised styles (see "Changing the Map's Appearance" on page 247).

> CAUTION: We'd strongly recommend saving your changes under a new name instead of overwriting the default map layout, as you will not be able to restore the original layout without reloading the original .gst file.

▶ **To Save the Map Layout**

1   When you're satisfied with your changes, click the **Map Options** button ▦ on the Map window toolbar to load the Map Options window (on page 254).
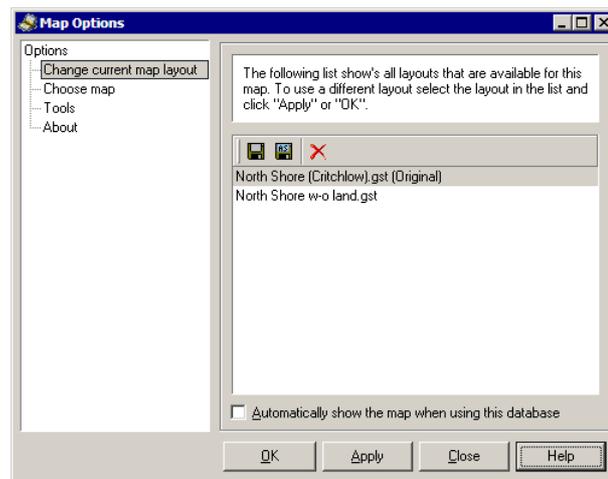
2   In the selection panel at the left, ensure that **Change Current Map Layout** is selected as above.

3   Click the **Save As** button ▦ to save the current layout under a new name

-OR-

Select the .gst layout file already in the window (the default layout you are using at the moment) and click the Save button ▦ if you wish to overwrite the existing layout file.

4   In the browse window that pops up, choose a name and location for the .gst file. This will be the location of your current .gst files by default.

5   Click **Save** to return to the Map Options window above. You can now select the layout and load it (see below).

▶ **Deleting a Map Layout**

▪   You can delete any saved layout with the **Delete** button ✗. For your security, *Original* layouts cannot be deleted.

▶ **Loading a Map Layout**

1   To load a saved map layout (above), or the *Original* layout supplied with the map, select the layout you want to use.

2 Tick this option to load this layout automatically every time you launch the Map window:

☑ Automatically show the map when using this database

As indicated, the layout will be specific to the database you're currently using.

3 Click **Close** to close the window and cancel all changes, **Apply** to apply your settings to the Map window right away, or **OK** to apply your settings and close the Map Options window.

Loading an Alternative Map

You can reload your original map layout or an alternative layout from your default map layout folder.

NOTE: You will need to ensure that you have the relevant .gst map layout file in the appropriate folder of your RAMM application (usually C:\PROGRAM FILES\CJN TECHNOLOGIES\MAPS)

▶ **To Load An Alternative Map, Or No Map**

1 Click the **Map Options** button ▣ to load the Map Options window (on page 254).

2 From the selection panel on the left, select **Choose Map**.
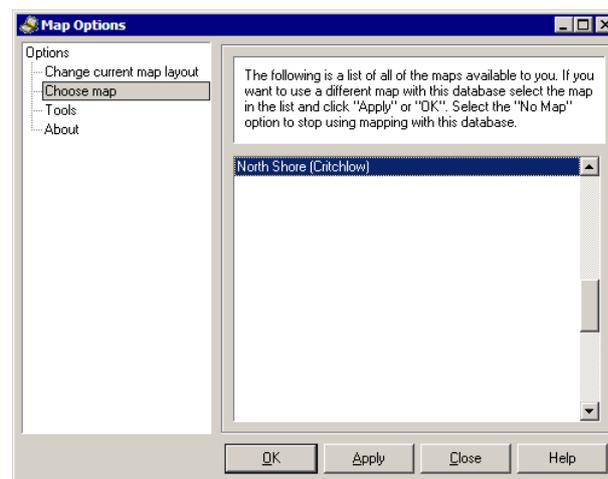
This window will show you a list of the maps you can load. Make your selection. If you want to stop using a map, scroll up the list and select **No Map**.

3   Click **Close** to close the window and cancel all changes, **Apply** to apply your settings to the Map window right away, or **OK** to apply your settings and close the Map Options window.

Running the Map Validation Report

When you're working with mapping, it's a good idea to run the map validation report:

▪   The first time you use the mapping module.

-AND-

▪   Each time you receive updated mapping data as part of an upgrade.

The map validation report compares the details about each mapped item stored in the road network database with the details in the mapping database. This alerts you to any discrepancies, which can then be sorted out (see "Compensating for Map Data Discrepancies" on page 261).

▶   **To Run the Validation Report**

1   Open the Map Options window by clicking the **Map Options** button 🖳 on the Map window toolbar (on page 231).

2   Click **Tools** on the left-hand selection panel.
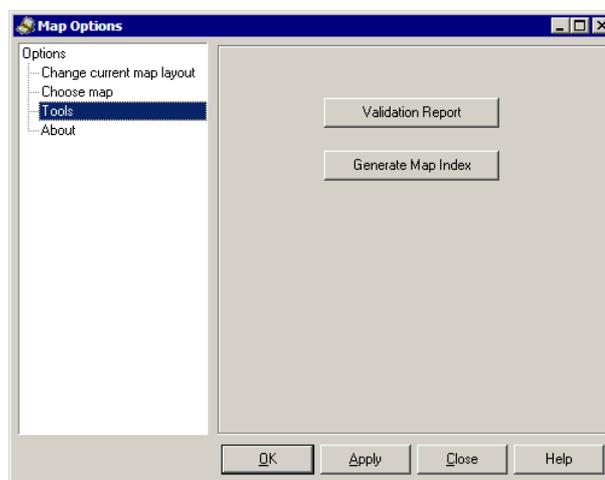
3   Click the **Validation Report** button.

4   A progress window appears as Mapping extracts map data for comparison with the RAMM application you're running.

5   The Map Audit window appears.
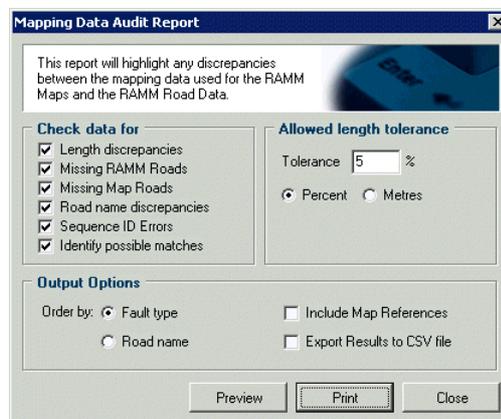
6   Mapping will now compare the map data with the RAMM Road data. Select the appropriate types of fault to check for:

- **Length Discrepancies**. Identifies roads whose length in RAMM is different than the length in the map data. Ignores any discrepancies that are within the Allowed Length Tolerance specified on the right side of the window.

- **Missing RAMM Roads**. Lists road centrelines in the map data which have a RAMM Road ID that does not exist in the RAMM data.

- **Missing Map Roads**. Lists Road IDs from the RAMM data whose corresponding road centreline does not exist in the map data.

- **Road Name Discrepancies**. Lists RAMM roads and map roads with same RAMM Road ID but different names. Ignores differences like "Ave" and "Avenue".

- **Sequence ID Errors**. Lists internal errors in the map data where the same sequence number has been used for more than one road. Mapping will not work properly with such data, and you must inform the map data supplier (usually Critchlow Associates) of the problem.

- **Identify Possible Matches**. Attempts to match RAMM roads with map roads that haven't been assigned a RAMM Road ID.

7 Select the difference between **lengths** in the map data and RAMM data Mapping should tolerate in the *Allowed Length Tolerance* section.

8 In *Output Options*, select whether to group the report by the **Fault type** or by the **Road Name**, and whether or not to include **Map References**. You can also choose to **export** the report results as a Comma-separated file for later use.

9 **Preview** or **Print** the report. Mapping may take a while to generate this report - please be patient. It will look like this:

10 Go through the discrepancies noted in the report, writing your notes on the printed report as you go. This is one situation where there's no substitute for hard copy.

11 Please send the annotated report to your map supplier, so they can make any necessary changes to the map data they supply. If your map supplier is Critchlow Associates, their postal address is PO Box 4103, Wellington. Aim to send your comments before the December-February period each year, when the maps are usually updated. The updated map data will accompany the RAMM and SLIM software upgrades released in March/April. These upgrades are automatically loaded for you if you're using the RAMM Hosting Service.

Compensating for Map Data Discrepancies

Discrepancies can sometimes occur between the information in the mapping file and in your database. This can be for a number of reasons- apart from survey inaccuracies, it can also happen as a result of not taking into account geographical features like hills as in the image below.
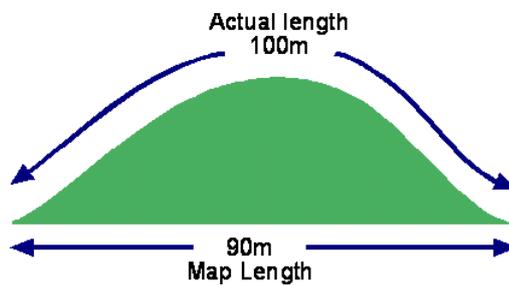
> **NOTE**:   Whenever you get updated mapping data as part of an upgrade, we recommend you identify any discrepancies between the map data and road data by running the Map Validation Report (on page 258).

Every database is provided with a Map Index. You can Generate the Map Index to have Mapping compare the map with the RAMM data and adjust the data accordingly. In fact, when you load a map for the first time Mapping will automatically prompt you to generate the Index.

▶ **Generating the Map Index**

If you need to manually generate the Index, you can do so from the Map Options window.

1   Click the **Map Options** button ⊞ and select **Tools** from the left-hand selection panel.
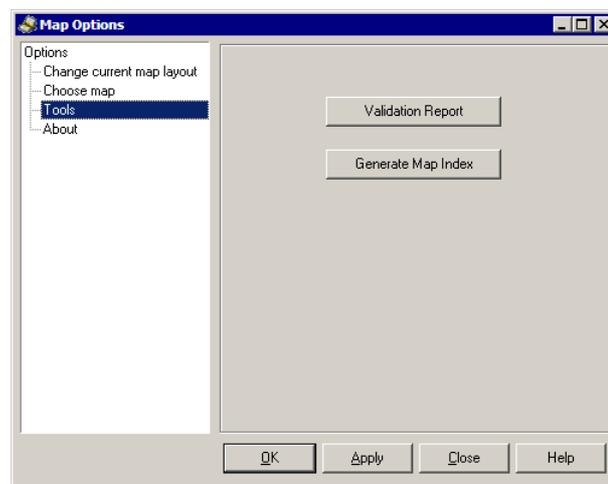
2   Click the **Generate Map Index** button. This may take a while - please be patient. You'll see a progress bar as this happens.
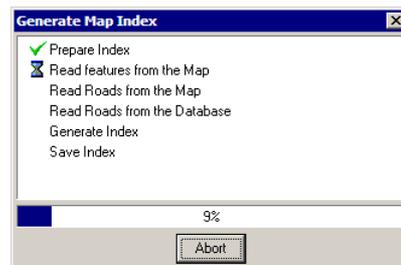
3   Click **OK** to return to the Map window.

Printing the Map

To bring up print options for the map, click the **Print** button 🖨 on the Map window toolbar (on page 231).
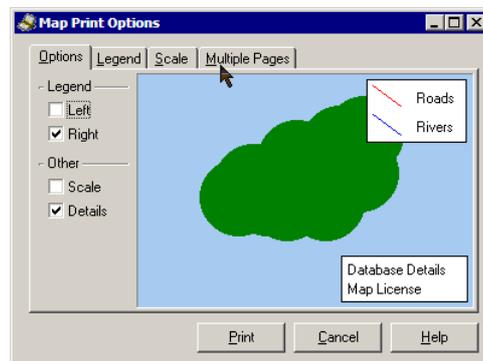
You can choose the position of the legend and whether Scale and Details will be shown. The map licence will always be shown.

If you're printing the legend you can also select which layers to show, so that you don't clutter your print with unnecessary information.
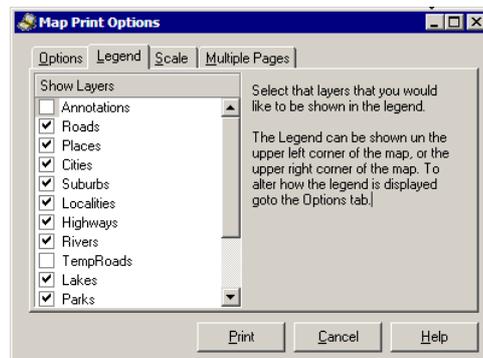
Two Scale options give you control over the labels and detail visible on the screen. **Scale to Page** will print the map exactly as it is on the screen. **Scale to Page – Detail** will add more labels if there is room for them on the page being printed. The other options are specific to the scale selected.
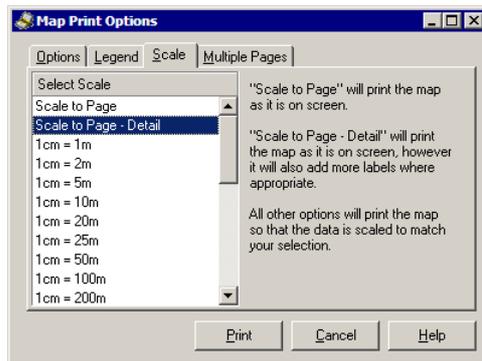
You can also print the map over multiple pages. Simple select the layout you require, and the panel on the right will show you how it will look. You can also select the option to **Print the Legend and Details on every page** if you wish.
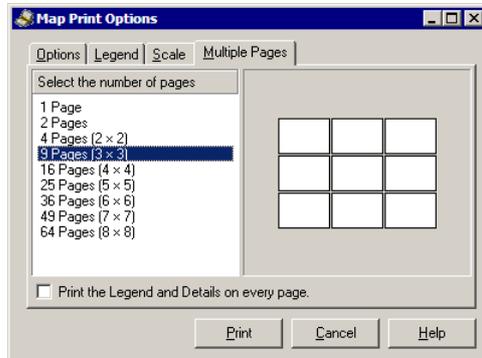
Close the window when you are done.

Updating RAMM from the Map, and the Map from RAMM

~q Nigel this section does not seem to be valid for SLIM and Traffic Signals now, please advise

You can update RAMM Road IDs, Displacements and Offsets from the Map for greater consistency between the Map data and the RAMM data. You can update the following:

- RAMM Road ID

- Side

- Displacement

- Offset

You can also do the reverse, and update Map Coordinates from RAMM.

The **Update RAMM from Map** option is available from selected RAMM Grid and Detail window menus. Select **Actions > Update RAMM from Map**, and then select either **Map Coordinates** or **RAMM Displacement** as required.

> **CAUTION**:   Updating the **RAMM Displacement** is a fairly complex operation and has the potential to alter crucial RAMM data. If you're not absolutely sure that you need to use these options, please contact us (see "Contacting CJN Technologies Ltd" on page 23).

In SLIM, RAMM Traffic Signals and Signs, this process can be also automated by selecting **Options > Map Automatic Update Options** and making the necessary selections in the window below.
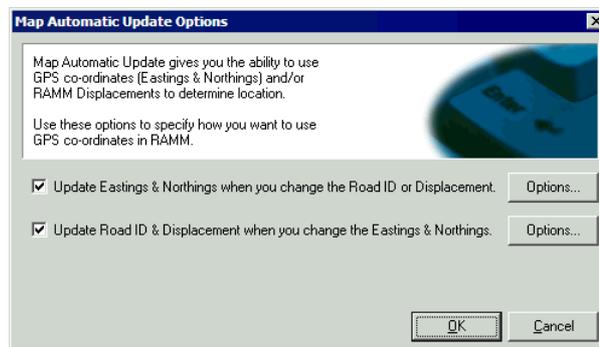
▸ **To Update Map Coordinates from RAMM**

1   From the relevant RAMM Grid or Detail window menu, the SLIM Street
Lights window, RAMM Traffic Signals window or the Signs window, select
Actions > Update RAMM from Map, and then select **Map Coordinates**

-OR-

To update Map coordinates automatically in the SLIM Street Lights window,
RAM Traffic Signals window or the Signs window, select **Options > Map Auto
Update Options > Update Eastings and Northings when you change the Road ID or Displacement** (see
image above) and click **Options**.

2   You can now select whether or not to override existing co-ordinates.
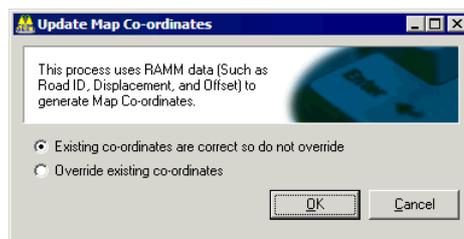
3   Click **OK** to return to the previous window.

▸ **To Update RAMM from the Map**

1   From the relevant RAMM Grid or Detail window menu, the SLIM Street
Lights window, RAMM Traffic Signals window or the Signs window, select
Actions > Update RAMM from Map, and then select **RAMM Displacement**

-OR-

If you wish to update RAMM information automatically in the SLIM Street Lights window, RAMM Traffic Signals window or the Signs window, select **Options > Map Auto Update Options > Update Road ID & Displacement when you change the Eastings & Northings** (see image above) and click **Options**.
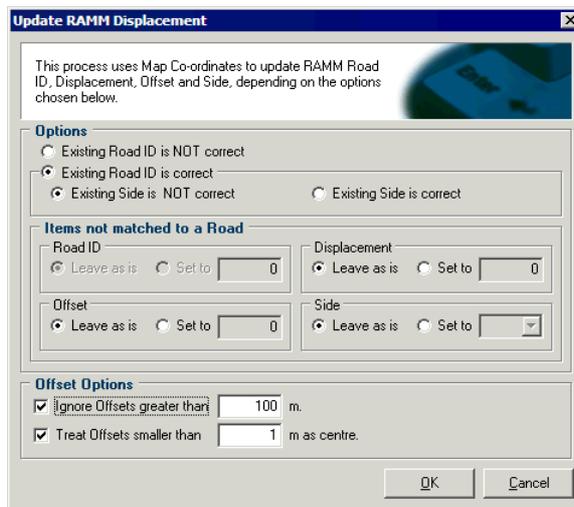
2 Make your selections, and click **OK** to return to the previous window.

Status Check

From the menu **Actions > Status Check**, you can perform a number of database specific status checks.

- Reload query tables

- Reload triggers and procedures

- Update database statistics

- Clear processing triggers

If more then a month has expired since *Update database statistics* was last run or if any of the other status checks need to be done, they will be indicated with a blue icon as below:

Click **Begin Processing** to start the status check process and update your data. While processing, the process currently running will be indicated by a yellow arrow.

RAMM Traffic Signals will automatically exit the window.

Security

This section deals with setting security levels for different types of users in RAMM Traffic Signals.

IN THIS CHAPTER

Setting Staff Security Permissions

The **Maintenance > Staff Security** menu in RAMM Traffic Signals defines the levels of access each user has to a given database, and what tasks he or she can perform.

If no users have been entered on this window, then all users can access all options and you will be warned of this.
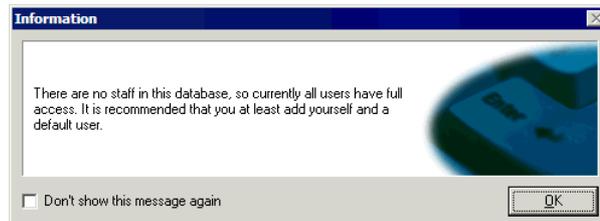
When you click OK you will see that the staff security window is blank, so it's advisable to create a user. Click **Add Record** [icon] on the toolbar to do this.

Another warning informs you that you also need to set up a default user.
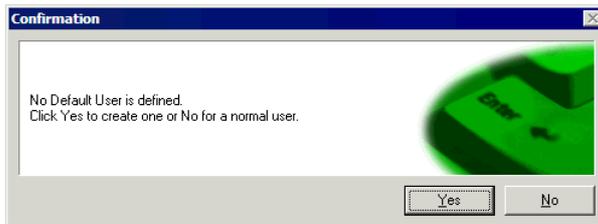
A new staff security record with the current date will be created, and you can proceed with setting up the new user.
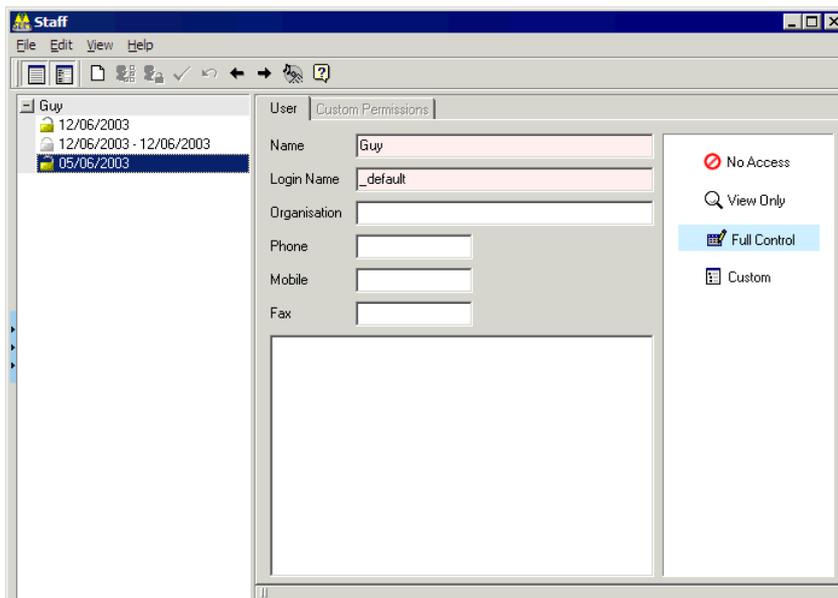
Set the level of access you require for each user from the right hand panel of the Detail panel. If you choose to customise the permissions, see Security – General (on page 273).

Security – General

If you choose to customise staff security permissions in RAMM Traffic Signals in the panel on the right hand side of the Staff Security Detail panel, the **Custom Permissions** tab is activated. Click this tab to define custom permissions.

Select the custom permission categories as appropriate in the left pane of the **Custom Permissions** tab.

Following the installation of a new software build, you may need to **Upgrade this database**. When this option is unchecked, a message is displayed and access to the database is denied until the upgrade has been done.

The option **No access allowed** enables the administrator to exclude users from accessing the current database.

Access to the Parameter table enables the user to define database wide options, including the ability to reconfigure the name of the database which appears in report headings. See RAMM Traffic Signals Options (on page 169) for more information about this.

The topmost *Permission Options* category controls access and updating of the database. Choose the appropriate Parameter.
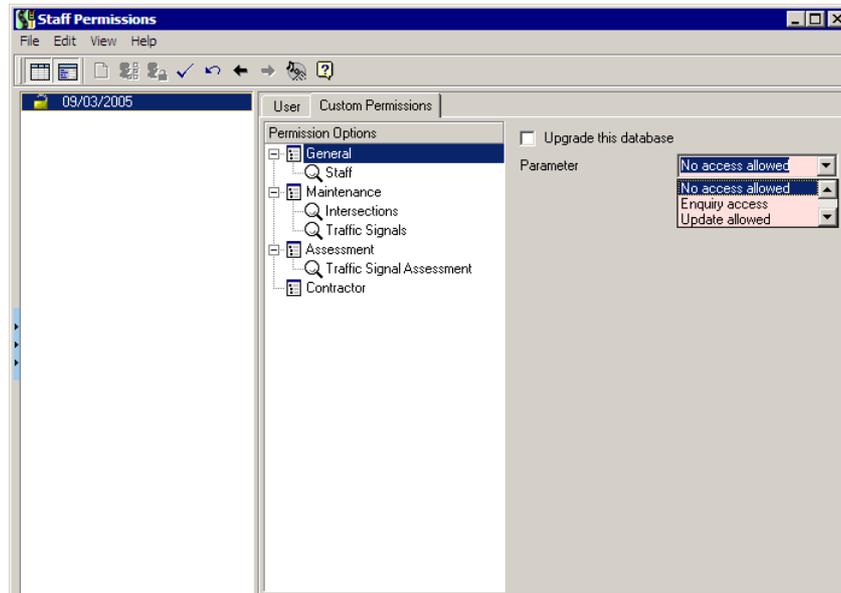
When setting up this window, it's important that you ensure at least one user is given permission to maintain the Staff list.

Access these settings by clicking the ⊞ and expanding the options under *General*.
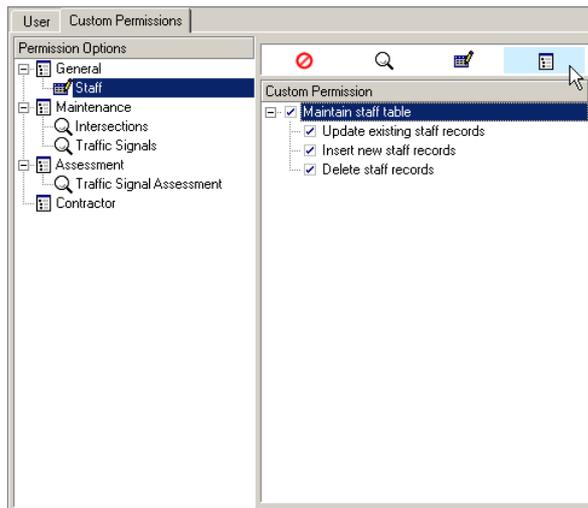
The above settings are individually selectable only when the option indicated (selected in blue above) in the right hand pane of the Custom Permissions tab is clicked.

Security – Maintenance and Assessment

Select **Intersections** or **Traffic Signals** to set maintenance options in the *Maintenance* category.

The choices refer to the updating of Intersections and Traffic Signal assets, and the list of Custom Permissions on the right panel is the same for both Intersections and Traffic Signals.
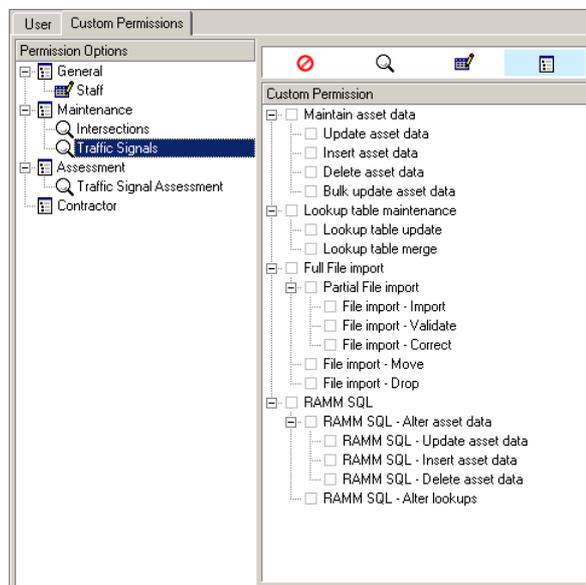
Select the required options by ticking them in the Custom Permissions list.

Select **Assessment** to set options in the *Assessments* category and to enable the RAMM Assessment system in RAMM Traffic Signals. For a more detailed explanation of the RAMM Assessment system, read the *RAMM Assessment* guide.
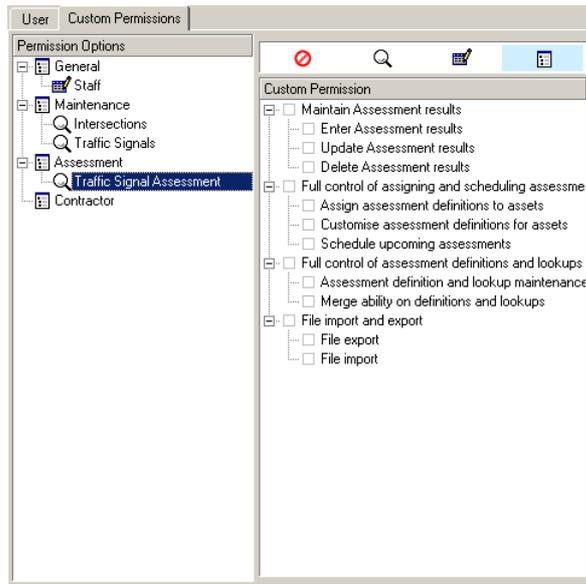
Select the required options by ticking them in the Custom Permissions list.

Security – Contractor

The Custom Permissions tab also has contractor-specific options.
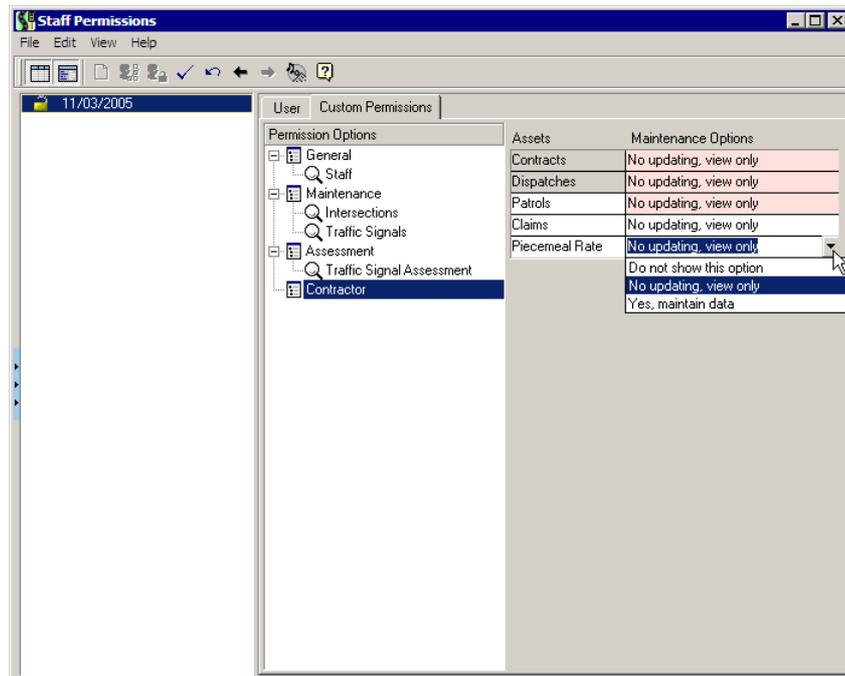
To change the default *Maintenance Options*, select them from the drop-down lists as indicated above.

Contracts. This allows the maintaining of the Contract and Contract Items tables. This access is required for setting up a Contract. As all Contractor transactions are linked to a contract, changing this permission will impact on a number of related tables.

Dispatches. This option relates to the entering, printing and completing of dispatches.

Patrols. Patrols are performed at regular intervals. Those staff members who will be entering patrols or maintaining the patrol area definitions need to have permission in these areas.

Claims. Claim lines are produced when completing a Dispatch, and Claim Lines are linked to a Claim header. This option gives access to the Claim headers, on which claims for work done, are based.

Piecemeal Rate. The Piecemeal Rate system is optional. This enables contractors to subcontract out the maintenance of the assets.

Glossary

Asset Type
An asset type is a category of the assets that make up your network - like Traffic Signals.

Call Types
A description of the source of a call which has been made in response to a fault (e.g. Public Call, Council, Routine patrol).

Carriageway
A term for a continuous section of road between displacements (see below). RAMM sometimes identifies assets in relation to carriageway sections.

Circuit Information
This refers to line companies, bulk change groups and lighting circuits. A bulk change group is the grouping together of circuits for regular maintenance of the assets.

CJN Hosting Service
The CJN Hosting Service allows you to host your database and the software on one of our fast servers at CJN. You simply use your standard internet browser to run the software and work with your data, so you don't need any specialised software. It's also more secure, since your data is on our servers and not your local machine.

Claim Groups
Optional codes for use with Claims that refer to specific groups.

Claim Header
A claim header groups together claim lines for the same contract within a fixed period. Claim headers must exist for claim lines to be entered during the dispatch completion process.

Claim Lines

Every dispatch needs to be linked to a claim line, and RAMM Traffic Signals will automatically prompt you to do so on completion of every dispatch. Claim lines need to be set up under a claim header.

Contract Item Activities

Types of activities that can be carried out under a contract. These items need to be defined at the beginning of a new contract if they have not been pre-defined and included in a Data Transfer (see below).

Database

A computerised container for large amounts of information - in RAMM's case, about a particular roading network. You may use more than one RAMM database, particularly if you work with more than one Road Controlling Authority.

Detail Window

Type of window used for working with road asset details one at a time, particularly when you're editing and viewing them.

Dispatch

A job of work raised in response to a fault.

Dispatch Groups

Optional analysis codes for use with Dispatches.

Displacement

A reference to a point on a road, used to define sections such as carriageways (see above) and expressed in metres.

Event Codes

A code for classifying events in emails sent from within RAMM Traffic Signals, or between Council and Contractor, to give more information about a job.

Fault

A description of a regularly occurring fault or problem (for example, lantern out, vehicle accident). Faults can also be assigned to fault categories. Fault reports are also available in RAMM Traffic Signals.

Filters

Filters help you sort information by specific criteria so that you see only what you need. You can also save your filter to use them again.

Grid Window

Type of window used for working with road assets, usually for more than one road at a time. A Grid window is basically a visual report writer - you get everything looking the way you want by adjusting the Grid layout, then work with road assets, export or print the displayed details.

Line Company

The line company is the owner of the line assets.

Location

The details that help to locate a traffic signal unit- the side of the road it is on, what landmarks are nearby, external factors (for example, "dog in brown house next to crossing bites").

LTNZ

Land Transport New Zealand, formerly Transfund New Zealand.

Manufacturer

A short code for the manufacturer's name or the models supplied by each manufacturer.

Network

The network is the entire collection of roads managed by a particular Road Controlling Authority. Each RAMM database usually contains all the information for a particular network.

ICP

Installation Connection Point. See Maintaining Power Supply and Installation Information (on page 187).

Null

Blank, having no value.

Pole and Light Owners

The owners of the respective traffic signal asset.

Piecemeal Rate (PMR)

An option used when entering contract details to enable allocation of different rates directly to individual crew members. The PMR is contract specific and links claim lines with payments.

Pole

The pole that the traffic signal is attached to.

Pole Definitions

Definitions specific to a pole, for example **Mounting** and **Type**.

Power Company

Details about the power company that supplies power to the traffic signals.

RAMM

Road Assessment and Maintenance Management - the software suite that includes RAMM Traffic Signals.

RCA

Road Controlling Authority. The organisation responsible for managing a particular network of roading assets.

Record

A record holds all the details about a particular item, like a Lantern. Think of it like your medical record that holds all the details about your health, or your school record that holds academic details.

Replacement Reasons

The reasons given for the replacement of an asset. Replacement reasons can be set up and allocated to specific assets.

Road (Road Name)

In RAMM Traffic Signals this specifically refers to a road in the context of a location of a traffic signal.

Table

Container in the RAMM database that holds all the records about an aspect of the road network - its Intersections, for example. Each table holds all the information about only one aspect of the network.

TFNZ

Transfund New Zealand. Transfund is now known as Land Transport New Zealand.

TNZ

Transit New Zealand.

Update Asset

When entering contract details, selecting **Update Asset** will allow automatic updating of the traffic signal asset data when completing a dispatch.

Index

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