

LOADRITE

MMS Help

Material Management System Help

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ON-BOARD WEIGHING SOLUTIONS



8 Walls Road, PO Box 12-607, Penrose, Auckland, New Zealand



+64-9-5257006



+64-9-5257373



info@loadritescales.com



www.loadritescales.com

Designed & Manufactured by:

actronic



www.actronic.com

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1. Introduction

Welcome to the MMS Help System

The Material Management System (MMS) is designed for managing bulk material movement in sites such as quarries, mines and other loading sites.

Within this help system, you will find how to make the best use of your MMS installation, so that you know what is going on with the material from your site.

1.1. About MMS Help

MMS Help is designed as a support system for MMS users. It provides an overview of functionality, as well as an introductory guide for setting up and using MMS.

This version of MMS help was last modified on 16 July 2004

Using MMS Help

This help system can be used as a guide or as a reference for MMS. The suggested steps for new users are:

1. Follow initial guidelines ([Guide for Using MMS](#))
2. Use MMS and refer to MMS Help for clarification ([MMS Overview](#))

MMS Help is designed to be used as a support system alongside MMS.

NOTE:

For items not covered in this help system, or for personal assistance, please contact Loadrite:

LOADRITE LIMITED

8 WALLS ROAD, PENROSE

PHONE: +64 9 525 7006 **FAX:** +64 9 525 7373

EMAIL: INFO@LOADRITE.CO.NZ

1.2. About MMS

MATERIAL MANAGEMENT SYSTEM

60295 V2.30

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2. Guide for Using MMS

A brief guide for using MMS

This section provides a brief step-by-step guide for setting up MMS and using the system.

2.1. Configuring MMS

Some settings of MMS must be configured before using the program. This ensures that the data collected and stored in MMS accurately represents the activities of a site.

To edit these settings, select the Change Settings task from the main tasks group. ([Change Settings](#))

Database Location

The Database Location specifies where the MMS database file is stored.

This database contains the data as well as the configuration settings, so should not be changed once MMS has been configured.

The Database Location can be modified from the default setting if a database from a previous version of MMS exists elsewhere. However, it is recommended to import this data ([Retrieve Archived Records](#)) rather than using the old database, as this will ensure that the original database is still usable with the previous MMS program.

Upgrading from previous MMS versions

MMS v2.30 can use the data and database structure from previous versions of MMS.

This can be done by either importing the data ([Retrieve Archived Records](#)) or using the original database. ([General Settings](#))

NOTE:

- Use the LRDATA.MDB file from the previous MMS. The LRPROG.MDB file is not a valid MMS database and will not work.
- The MMS v2.30 database is not compatible with MMS v1.xx.

Once the database has been converted into the new format, it should not be used with MMS v1.xx

Site Settings

Essential settings specific to the site that need to be configured before MMS can be used to collect data.

Each site will have a specific number of products available, as well as a number of loaders. These need to be configured so that MMS can correctly recognise the data from each loader.

These settings need to be configured for both the loaders and MMS. In MMS this is done in the Change Settings - User Defined Fields section - for the loader configuration refer to your Loadrite Indicator Manual.

Loader List

This list identifies each loader based on the Loader ID field.

This list can then be used in reports to identify which loaders are most active, move the most product and so on.

Product List

This list determines which product is associated with the product number of the logged data. For sites with multiple loaders it is essential that this list is identical for each loader.

NOTE:

This list must be configured identically for each loader, else the reports produced will be inaccurate!

User Data List

The user data list contains the descriptions for each of the user data fields, so the title of each user data field should be configured to match the intended use. (User1 is generally used for logging Customers)

The descriptions for each UserID entry can be entered, and there is an option to export these values to a file for use with Loadrite Link to update the indicators.

NOTE:

When MMS encounters a new value that does not exist in the database, MMS will prompt the user to enter a new description, so not all the values need to be entered initially.

Data Connections

Configuring the way MMS will retrieve the data from the site's loaders.

The Data Drivers determine the way that data moves in and out of MMS. These need to be configured according to the needs of the site.

If a site uses LD941 data loggers to record loader activity, the LD941 Data Logger Connection will need to be configured according to the site requirements.

The default driver settings assumes the LD941 download cable is installed on COM1, and should work for most systems.

NOTE:

Refer to the Drivers section of the MMS Overview for more detailed information about the available drivers and configuration options. ([The Drivers Group](#))

2.2. Using MMS

Start Using MMS

Once all the database settings and drivers have been configured, it is time to start using MMS.

The first action that most users will want to do is to clear the sample data. Do this using the Clear Records task from the Browse Data sub-tasks group. ([Clear Records](#))

Once this is done, the MMS database is ready for use.

Retrieve and Analyse Data

The next step would be to retrieve data from the loaders and import this into the Main Database by using the configured driver.

For example, if LD941 data loggers are used, just connect the module to the download cable, and the data should start importing automatically (depending on the driver configuration).

NOTE:

- The LD941 driver needs to be installed and added to the active driver list. ([The Drivers Group](#))
- The driver may also need to be turned on. 

When the data starts downloading, MMS may ask for the description to be entered if the data field ID is not in the MMS lists. This value will then be added, and used the next time this ID is encountered.

Once all the data has been imported into the Main Database, it is immediately available for reporting and analysis.

NOTE:

It is possible to edit the data by using "search and replace" task. ([Find Data](#))

Search and Replace will not update the description lookup field, so future entries with this ID will use the description stored in the User Defined Fields list.

NOTE:

It is a good idea to archive data regularly for reference and safekeeping. ([Archive Records](#))

2.3. Reporting

After using MMS for a while, reports can be generated on the data that has been imported into the main database.

This enables the MMS user to view and analyse the data in a more organised and readable form than that of the main database.

MMS includes some default reports that allow summary or detailed analysis grouped by Loader or Product information.

NOTE:

It is expected that users will require customised reports to match specific data, for example detailed reports grouped by customer. To do this, see the Reporting section. ([Create New Report](#))

To create a detailed report grouped by loader, select the Detail by Loader from the reports list, and select the Show Report task to see the report.

This report is useful for analysing the activities of each loader, and can be edited to display more information, for example the Customer, Material and other user data fields.

NOTE:

This section contains only the basic steps necessary to begin using MMS.

Refer to the Overview section for more detailed information about any part of MMS. ([MMS Overview](#))

3. MMS Overview

A brief overview of MMS

MMS has had a major overhaul since the previous release, and now has a much clearer layout, and is much easier to use.

MMS features a Tasks panel on the left hand side of the screen. This panel contains three main groups which determine the tasks available, as well as the way data is collected.

There is also a Database Window on the right side, which displays the contents of the active database or task group.

3.1. MMS Layout

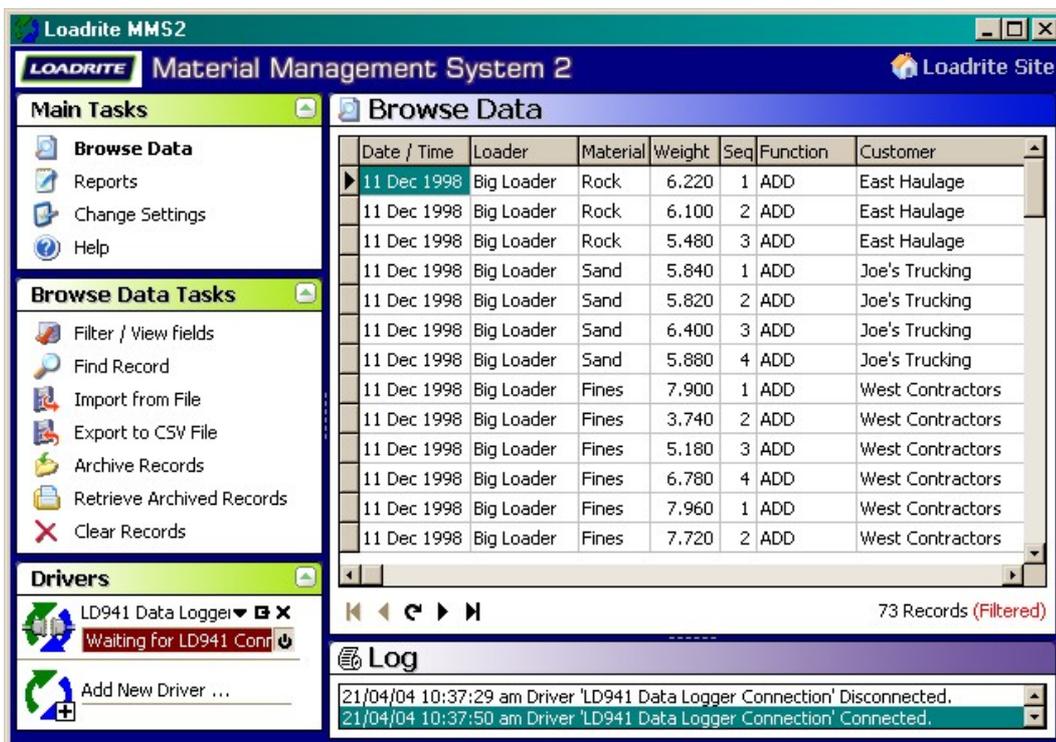
MMS has had a significant make-over since the initial MMS release, and the user is now presented with a combined view of tasks and data.

A lot of the functionality of previous versions has been retained, but this has been re-designed to be easier to use, along with some new tasks to extend the useability of MMS .

Screen Shot

What MMS V2.30 looks like, and where to find the key functions

Click on an area to see more information.



3.2. Tasks Panel

The "Tasks" panel has been created as the starting place of any task in MMS, and has been split into three main groups.

The Main Tasks Group

This list consists of four options which determine the available tasks in the sub-tasks list box, and also selects the set of data that is displayed in the database window.

The top list box in the tasks panel, this list consists of four options.

These options determine the available tasks in the sub-tasks list box, and also selects the set of data that is displayed in the database window.

Available Task Groups

Browse Data

Options for viewing and managing the data stored in the main database.

There are several tasks associated with the Main Database.

These tasks control which records are displayed and how they are displayed. Data can be archived and exported, and records can also be removed from the database.

Main Data Tasks

Filter / View Fields

Changing and controlling the data that can be seen in the Browse Data window.

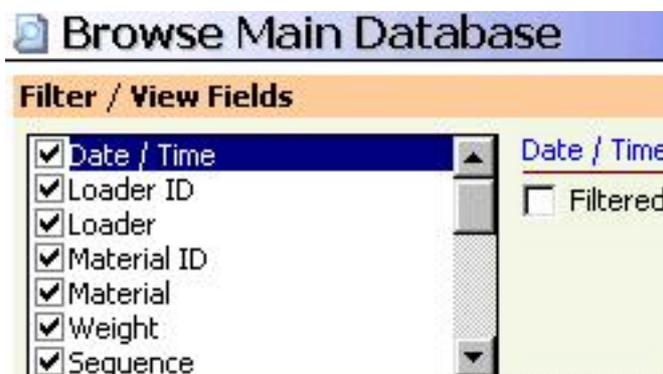
The Filter / View Fields option is used to specify which fields and database records can be seen in the database window.

When the Filter / View Fields task is selected, a special section appears above the data in the database window.

Selecting which fields to display

To select which fields you want to see in the database window, you must select the Filter / View Fields option from the tasks list.

This will then show the Filter / View Fields options above the data in the database window, and you can select which fields you want to be displayed by placing or removing the tick in the checkbox by the field names.



To hide a field, simply uncheck the box, and the associated column will be hidden in the database window. Likewise, to display a field, check the box again.

NOTE:

This option is particularly useful for hiding redundant fields, such as the User 4 and User 5 fields, and also for hiding the ID field when you would rather view the description field.

Filtering Records

To display only specific records matching certain criteria, you can filter the contents of the database.

To do this, you must select the field you wish to filter by, then tick the Filtered checkbox to display the filtering options.

There are two ways to filter data:

Selected

To display records containing only the selected values

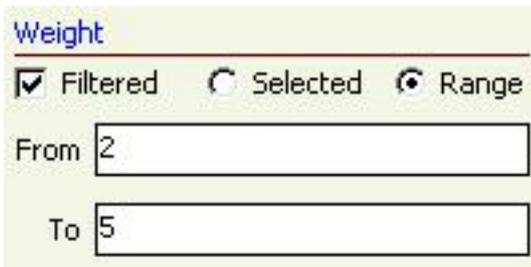


NOTE:

You can select multiple items by holding down the Ctrl key as you click on the fields you want

Range

To display all values between a specified range - for example all weights in the range 2 to 5 tonnes.



In some cases there are also preset options available - notably for filtering by date, as well as the All, None and Invert options for most Selected Filter options.

Date / Time

Filtered Selected Range

From

Until

Presets ▾

	Loader
1	Big Loader

- All Data
- Today
- Yesterday
- This Week
- Last Week
- This Month
- Last Month
- This Year
- Last Year

Find Record

Finding specific data records stored within the Main Database.

The Find Record option is used to find specific records in the data stored within the main database.

This can be useful for finding information based on a certain location, specific loaders, or a given date.

It is necessary to know the contents of at least one field when searching for specific data records - for example, the date or location.

Find by Date / Time

Finding records by the date or time of a specific event

Date

To find records on a certain date, fill in the date in the fields, and enter ? in the time boxes to match records at any time on the given date.

Time

To find records based on a certain time, enter ? in the date fields, and specify the time in the time fields

This is different to any other Find action, as the date and time can be entered to varying degrees of accuracy.

Find by Other Fields

Finding by weight, loader, truck ID or any other field requires specific data to be entered in the Equals box.

NOTE:

To automatically fill the Equals field based on a visible record, simply double-click the field.

Replace

The Replace option is only available for a few fields, specifically the Loader, Material and User Data description fields.

This option allows the user to change the description entered for these data entries.

The Replace option allows the user to change the fields one entry at a time, and Replace All will replace all entries in the one go.

To find the first occurrence, click on the Find First option.

The Find Previous and Find Next options can be used to scroll through all matching records.

NOTE:

Find Records and Replace only works on the data that is visible in the Browse Data window.

If some records are not visible because they have been filtered out, then these won't be matched. To include these in the search, clear the filter criteria.

Import From File

Import data from a file.

This option allows MMS to import data from a file, such as a file created by the Loadrite LD941 Reader, MMS Exporter and other such tools.

An explorer window will open, and this provides options for several file types that can be imported.

Loadrite Export Files (.LRX)

This file type can be created by MMS Exporter, and is in a format unique to MMS.

Logdata.txt Files (.TXT)

Files of this type can be created by MMS Exporter, or other tools such as Loadrite LD941 Reader.

Loadrite EDP Files (.EDP)

This file type is created by all MMS drivers whenever data is encountered by the driver. This file can then be imported into the MMS database separately if the driver is not connected to MMS.

Export to CSV File

To export all displayed records to a CSV (comma separated variable) file.

Any of the data stored in the main database can be exported to a CSV file for use within other applications, such as Microsoft Excel.

Before exporting, you must first filter the database to display only the records you wish to export. To do this, use the Filter / View Fields task from the Main Data Task list. ([Browse Data](#))

Export Options

File Name

The name and location of the file must be entered. Either enter it directly in the text box, or press the button to bring up an explorer window where the file name and location can be entered.

If the file already exists, a warning message with 2 choices will appear. Press Cancel to specify a different file, or OK to overwrite the contents of the existing file.

Separate Date / Time fields

This option will split the Date / Time field of the main database into separate date and time fields. This may be useful for programs that cannot handle a combined date / time value.

Open file after exporting

When this option is selected, MMS will export the data to file, and will attempt to open the file with the program associated with .CSV files (normally Microsoft Excel).

Archive Records

Archiving old or unwanted data for storage.

The main database should be archived regularly to remove old and/or unwanted records. This will speed up the operation of MMS, and will prevent old data from distorting reports.

NOTE:

Records can only be archived based on date.

Archiving Period

There are several period ranges available for archiving data.

Prior to

Archive records that are older than the specified date and time

Range

Archive all records that fall in the specified date / time range

Last Week

Archive all data from the last week. The default archive name will be in the form [Wweek-year.lra]

Last Month

Archive all data from the last month. The default archive name will be of the form [month-year.lra]

Last Quarter

Archive all data from the last quarter. The default archive name will be of the form [Qqtr-year.lra]

Last Year

Archive all data from the last year. The default archive name will be of the form [Yyear.lra]

NOTE:

MMS defines Weeks as Monday to Sunday.

MMS defines Quarters as:

1. January to March
2. April to June
3. July to September
4. October to December

Other Options

The archive name can be altered from the default settings, but this should be done with some care, as the name of the archive is the main indication (and maybe the only) to the data it contains.

A comment can also be added to give more detailed information about the data contained within the archive.

For situations where the data is to be archived, but will still be needed for reports, the Clear Archived Data from Main Database option should be left unchecked.

If data has been archived and cleared from the main database, but is needed again, it can be retrieved. ([Retrieve Archived Records](#))

Retrieve Archived Records

Retrieving archived data back into the main database.

Occasionally it is necessary to retrieve previously archived data for further analysis - for example analysing yearly trends.

Archive Information

After the desired archive has been selected, a confirmation box is displayed with summary information about the archive.

Archive type

Generally an MMS Archive (.LRA), although it could also be an old .MDB archive.

Comments

Short descriptive comments entered at time of archiving.

Archive Date

The date when the archive was created.

Records in Archive

The total number of records in the archive.

First Record

The date and time of the earliest record in the archive.

Last Record

The date and time of the latest record in the archive.

This summary provides more detail about the archive, and the retrieve operation can be cancelled at this point if the wrong archive has been selected.

Once analysis has been completed and the data is no longer needed, the retrieved records can be cleared, as the original archive will still remain.

NOTE:

It is a good idea to archive the entire database before retrieving any data. If anything does go wrong, then restore this archive.

Clear Records

Permanently removing records from the main database.

Old data can be permanently removed from the main database using the Clear Records option.

NOTE:

It is a good idea to archive the data before deleting. If the wrong data is deleted, then restore this archive.

Period

There are several options available when deleting records based on a date / time period. A specific range can be specified, and there are also several preset options.

Prior to

Clears all data prior to the entered date.

Range

Clears all records in the given range.

Last Week

Clears all data in the previous week.

Last Month

Clears the previous month's data.

Last Quarter

Clears all data belonging in the last quarter.

Last Year

Clears all data from the previous year.

NOTE:

MMS defines Weeks as Monday to Sunday.

MMS defines Quarters as:

1. January to March
2. April to June
3. July to September
4. October to December

All Currently Displayed Records

This option will delete all the currently displayed records shown in the database window.

NOTE:

This will only delete records that match the current Filter / View settings

Browse Data Window

The Browse Data window displays the contents of the main database based on the current Filter / View settings.

The information stored within the main database contains all relevant information about each event, and is shown in the database window as it is stored.

The data displayed can be ordered in ascending (>>) or descending (<<) order by clicking on the header of the column you wish to sort by - to sort by Material, click on the Material header.

Reports

Reporting based on the information stored in the Main Database.

The Reports option is the gateway to meaningful summary reports and more detailed informative reports based on the data stored within the Main Database.

Reports List

The Reports List contains all the default reports, as well as any reports that have been created.

To load any of these reports, simply click on the report name in the list box.

Available Reports

The default reports available with MMS.

The following default reports are available as well as any customised reports that have been added.

NOTE:

These reports can be restored by selecting the Revert to Default Reports option.

Daily Report

This is a detailed report, grouping data by Material, detailing all total loads recorded yesterday.

This report is based on CLEAR events, so will match all data with the CLEAR_TOTAL function.

Detail by Loader

Groups data by Loader, detailing all total loads.

This report is based on CLEAR events, so will match all data with the CLEAR_TOTAL function.

Detail by Product

Groups data by Material, detailing all total loads.

This is also based on CLEAR_TOTAL events.

Monthly Report

This is a summary report, grouping data by Material, summarising the total loads recorded for the previous month.

This report is based on CLEAR events, so will match all data with the CLEAR_TOTAL function.

Summary by Loader

A summary report grouped by Loader, totalling all individual ADD events.

Summary by Product

A summary report grouped by Material, totalling all individual ADD events.

Weekly Report

This is a detailed report, grouping data by Material, detailing all total loads recorded for the previous week.

This report is based on CLEAR events, so will match all data with the CLEAR_TOTAL function.

Customised reports can be created as well, and these will appear in the Report List once they have been saved. ([Create New Report](#))

Report Tasks

Show Report

Applies the current report settings to the data stored in the main database, and displays the printable report in the Reports Window.

To print this report, press the  print icon. To return to the reports window, press the  exit icon.

Show Report in New Window

Applies the current report settings to the data stored in the main database, and displays the printable report in a new internet browser window.

This option also allows the user to save the report as an HTML page, send it by email, and any other options available from your internet browser.

NOTE:

This will be dependent on the internet browser used.

To save a report in Internet Explorer, select Save As from the File menu.

Edit This Report

This loads the currently selected report in the reports window, and allows all report settings to be edited.

The current report settings are loaded in the reports window, and can be updated to suit the desired report information.

Report Setup

This contains the key settings of the report.

Description

The current description for the report. This will be used for the available reports list. ([Reports](#))

Report Title

This is the title that gets printed at the top of the generated report.

Report Type

Detailed reports contain all entries based on the Use Values function selected, and will display the date/time stamp for each entry.

Summary reports will total up all matching entries, displaying a cumulative total and will display a count total. (the number of entries used for that total)

Group By

This option determines how the resultant report will be grouped. Grouping can be done by any of the user-definable fields. ([Setup User Defined Fields](#))

NOTE:

There is a None option if grouping is not desired.

Column 1 to 5

These columns can be selected to display more descriptive data in the reports.

Date / Time Range

The current date/time limits for the report will be loaded, and can be updated if necessary.

Period Type

Several preset time periods are available, as well as a user-definable range option.

All Dates

This option should be selected when there is no need for restricting data based on date. It is also the default setting for new reports.

Range

The range option allows the user to enter a custom time/date range

Presets

There are also several preset options available for creating reports based on common time periods.

Limit Period

This option allows the report to be based on specific time periods, for example weekly afternoons (12:00 to 5:00pm).

This can then be used to provide time-based data, for example morning vs. afternoon activity.

Report Filters

The report can also be restricted to specific data by filtering based on one or several description fields.

NOTE:

With multiple filters, the effect is cumulative, namely filtering by Customer and Loader will only report on records that match both the filter values.

Edit Report Tasks

Save Report

Saves the current report settings as shown in the Report Information window.

This will overwrite the old settings even if the Report Title and Description have been changed.

Discard Changes

Discards any changes that have been made to the current report, and reloads the stored settings.

Delete This Report

Removes the currently selected report from the stored report templates.

Revert to Default Reports

This will delete all of the reports listed, and will restore the four default reports.

Create New Report

Create a new report based on a blank template.

This option allows the user to create new customised reports, and will add the new report to the available reports list for future use.

A new report requires settings in 3 key areas to be configured.

Report Setup

This contains the key settings of the report, and this must be configured for each new report.

Description

The description of the report will be used for the available reports list. ([Reports](#))

Report Title

This is the title that gets printed at the top of the generated report.

Report Type

Detailed

Detailed reports contain all entries based on the Use Values function selected, and will display the date/time stamp for each entry.

Summary

Summary reports will total up all matching entries, displaying a cumulative total and will display a count total. (the number of entries used for that total)

Group By

This option determines how the resultant report will be grouped. Grouping can be done by any of the user-definable fields. ([Setup User Defined Fields](#))

NOTE:

There is a None option if grouping is not desired.

Column 1 to 5

These columns can be selected to display more descriptive data in the reports.

Date / Time Range

Period Type

Several preset time periods are available, as well as a user-definable range option.

All Dates

This option should be selected when there is no need for restricting data based on date. It is also the default setting for new reports.

Range

The range option allows the user to enter a custom time/date range

Presets

There are also several preset options available for creating reports based on common time periods.

Limit Period

This option allows the report to be based on specific time periods, for example weekly afternoons (12:00 to 5:00pm).

This can then be used to provide time-based data, so morning vs. afternoon activity can be monitored.

Report Filters

The report can also be restricted to specific data by filtering based on one or several description fields.

NOTE:

With multiple filters, the effect is cumulative, namely filtering by Customer and Loader will only report on records that match both the filter values.

The Create New Report task will replace the reports window with a blank report template, as well as a new tasks group. These tasks determine what happens with the report settings entered.

New Report Tasks

Save Report

Saves the new report settings as shown in the Report Information window.

This will save the report as the name entered in the Report Title field, and will use the Description field as the report title on the generated reports.

Discard Changes

Discards any changes that have been made to the new report, and reloads the Reports window.

Report Information

The Report Information section has 3 parts displaying all settings for the currently loaded report.

Report Setup

Contains the specific details for the loaded report.

Date / Time Range

The current date limits of the report, optionally restricted to a specific daily time range.

Report Filters

Filters to limit the data further - much like the Filter / View options for the database window.

NOTE:

These settings can be edited to provide different information. ([Edit This Report](#))

There are several standard reports for showing summarised and detailed information grouped by loaders or product.

These standard reports can be customised to show other information if so desired, and further reports can be created to show more specific details.

NOTE:

Care must be taken that the site's loaders are configured to log the actions required by the reports.

If a loader is not configured to log ADD actions, then the default summary reports will not show any data.

Change Settings

Changing program and database settings in MMS.

The Change Settings option lets the user customise MMS to their particular needs, allowing both program settings and data settings to be modified.

Available Settings

There are several options available for customisation. These are arranged into 3 main groups.

General Settings

Allows the user to specify general MMS settings.

Site Name allows a customised site name to be entered, which is displayed in the top right hand corner of MMS. This will also be printed directly under the report title for any reports generated.

Database Location is the path to the main database. This database must be of identical format to the default MMS database.

When upgrading from older versions of MMS, the database location can be changed to point to the original database. All of the original data should then be available to MMS.

NOTE:

When upgrading from a previous version of MMS, all the data and reports can be imported.

To use data from a previous version of MMS, change the database location to point to the LRDATA.MDB file in the old MMS directory. Generally this will be C:\Program Files\LrMMS\LrData.mdb.

A common mistake is to use the LRPROG.MDB file, which will generate an error.

The Cleanup Database option checks the database for duplicate entries, removes them, and then compacts the database. This will recover space left when records are deleted from the main database.

NOTE:

The Check for Duplicate Records stage can be skipped by pressing the Esc key.

Setup User Logins

Allows the MMS database administrator to add and maintain user logins for restricted access to the data reports.

This option allows the administrator to restrict remote access to the reports.

To restrict remote access, at least one user account must be created.

Once there are user accounts, the user will be asked to log on when accessing the reports from a remote computer, and will be denied access if they do not have the right log-on and password information.

There is also an option to remove users, and if the remote reports log-on is not wanted, all users must be removed from this list.

NOTE:

This only has an effect when connecting to MMS from a different PC. This can be done through the remote reports server. ([Frequently Asked Questions](#))

Setup User Defined Fields

Set up the user data fields to match the format used by the loaders.

The User Defined data fields must be set up to correctly match the configuration of the loaders, or any data imported into MMS will become almost meaningless.

There are 2 standard data fields that contain the site-specific information for loaders and products.

There are also 5 customisable user data fields that can be configured to record more specific information, such as the customer, the loader's location and so on.

Customising Data Fields

The User Defined Title for each data field is the data field name that is displayed in the main database. This is also the description that gets used in the report headers.

NOTE:

These lists need to be matched exactly to the loader configuration, or all data will be meaningless.

Loaders

This data field contains all the loader ID and descriptions for the site. When a new loader ID is encountered by a driver, it automatically gets added to the list, and the user will be asked to enter a description.

Products

This is the list of products available over the entire site.

An extra column is provided for entering the volume conversion factors. This is useful when the MMS configuration is used for setting up loaders. ([Exporting Product and User Data Lists](#))

User 1 to User 5

More specific data fields. These can be set up to record more detailed information, such as the customer, truck name, site location etc.

NOTE:

- o Any changes to the data field lists will not update information stored in the main database.

Exporting Product and User Data Lists

It is possible to export the data lists from MMS. These can then be used in Loadrite Link (uplink mode) to configure or update indicators.

To export the product and user data lists, press the Export button at the bottom left of the database window.

This will then bring up a Save As explorer window, where the file name and location for the export file can be specified.

NOTE:

- o It does not matter which data field is selected, only the Product and User Data lists will be exported.
- o The Export button will export all of the Product and User Data lists into a combined preformatted file.
- o This file can be used with Loadrite Link, the file format is Preformatted.

These settings need to be configured before using MMS, otherwise there is a high risk of inaccurate data being recorded, leading to useless reports.

Help

This option will open this MMS Help file.

The sub-tasks group

The sub-tasks shown in this list box are specific to each main task group, and get updated when a different task group is selected from the main tasks list.

When Browse Data is selected, the Browse Data Tasks list will be shown, and when Change Settings is selected, the list will change to the Change Settings Task list.

The Drivers Group

Drivers control semi-automated data movement into and out of the database according to the settings specified by the user.

The drivers are used to retrieve data from data loggers (such as the LD941) as well as from files (emailed data).

Drivers can be added by selecting the Add New Driver option. This will then display a list of available drivers.

Available Drivers

LD941 Data Logger Connection

The default data logger for the Loadrite data-capture system.

Driver for downloading data stored on LD941 data loggers.

The data downloaded to MMS can also be exported to a file (and optionally emailed) by using the Exporter driver. ([Exporter](#))

Display Options

Normal (minimised)

shows Active/Inactive, download progress

Expanded

shows Software Type, LD941 Serial Number, LD941 Memory Usage. Also allows access to Upload/Restore/Erase options

Setup Options

Name

Driver name to be shown in Drivers Group. Default is LD941 Data Logger Connection

Communications

Com Port

Com port that the driver is to use. Default is Com 1.

Start upload when LD941 is connected

Tick box to start uploading data automatically when a new LD941 module is connected. If this is not ticked, the Upload task must be selected from the Expanded display options.

Exporter

Automatically export incoming data to a file or email.

This driver can be configured to export incoming data to file and optionally send this new data to a selected email address.

This data can be exported to different file formats, and these files can also be imported into the Main Database. ([Import From File](#))

Setup Options

Name

The name of the input driver to be displayed in the Drivers Group.

If different file formats are required (for example logdata.txt and MMS.lrx types) then a driver needs to be loaded for each type. These can then be named to identify the driver function.

Export Settings

These settings determine the format of the export file, how often the data should be exported, as well as any email recipients of the exported data.

Export Type

There are two types of export file types: MMS .lrx and logdata.txt

MMS

Export data in MMS .lrx format. Data can be exported on LD941 transfer or periodically.

NOTE:

This format can not be read by older versions of MMS.

Logdata.txt

This is the LD941 Reader data format, and exports data in the same format as the LD941 Reader and previous versions of MMS.

The number of user data fields can be specified for this export file format.

NOTE:

This file type can only be created and exported on an LD941 transfer. ([LD941 Data Logger Connection](#))

Export Period

Can be configured to export data on LD941 transfer or configurable for a specified time period.

NOTE:

When a specific time period is specified, the exporter only exports any new data that has arrived since the last export was done. This is done to avoid duplication of records.

Export Folder

This determines the location where the export file is saved. The path to this folder can be entered directly in the input field, or can be selected by pressing the  button beside the input field.

Email File To

When this option is enabled, the export file generated will be automatically emailed to the email addresses specified in the input field.

There is a further option to delete the generated export file once it has been sent.

NOTE:

Each driver can be turned on or off by clicking the  icon in the Drivers Group.

To add a selected driver, double-click the driver, or press the Add button. The Info button shows driver build details.

A driver can be removed from the list by pressing the  icon.

3.3. Database Window

The Database Window is where the current data is displayed. The selected task group from the Main Tasks list determines which data is shown.

Browse Data Window

The contents of the main database is shown, and can be controlled and manipulated using the tasks shown in the task list. ([Browse Data](#))

Reports Window

The Reports option from the main tasks group will replace the currently displayed database with a window that displays report information. This window contains report information and tasks. ([Reports](#))

Change Settings Window

Change Settings hides the database window and lets the user alter specific settings depending on which of the associated sub-tasks is selected. ([Change Settings](#))

3.4. Log Window

The Log Window records all connections to the MMS drivers interface, as well as any error messages that the database driver might encounter.

4. Frequently Asked Questions

Frequently Asked Questions and Answers about MMS

This section deals with some of the most common questions encountered about using MMS. If the answer to your query is not in this list, please contact Loadrite for personal assistance.

LOADRITE LIMITED

8 WALLS ROAD, PENROSE

PHONE: +64 9 525 7006 FAX: +64 9 525 7373

EMAIL: INFO@LOADRITE.CO.NZ

4.1. Using MMS

Using MMS

Common questions about using MMS.

HELP! The Tasks List has disappeared!

The width of the Tasks list can be adjusted by click-and-dragging the marker between the tasks list and the database window.

When the Tasks List is smaller than a certain minimum (170 pixels), it disappears completely, maximising the database window. Double-click the marker to make the Tasks List appear again.

How do I change data in the Main Database?

It is not recommended to change data once it has been moved to the main database, but if changes are necessary, there are some options available.

The description fields for Loader, Product and User data can be changed using Find and then selecting Search and Replace. ([Find Record](#))

To delete entries, either delete them according to a very specific date and time range, or filter the database to display only the unwanted records and then use Clear and select All Currently Displayed Records. ([Clear Records](#))

Why does the MMS icon in the system tray rotate?

The icon in the system tray rotates when MMS processes data. The icon will rotate when one of the drivers receives data, and on other data actions such as archiving.

Why is there a funny driver icon in my Drivers list

Some of the tasks in MMS, such as the Import from File task, use data drivers to connect to MMS.

Since these are only temporary driver connections, no further information other than the icon is shown in the Drivers list.

Why does MMS not save my changes to the user defined fields?

When an entry is changed in the user-definable fields, the change won't be accepted until the cursor is moved to a different field, such as the next record.

When there is only one record, use the down key to change to a new blank line. This new line will not be added unless a new ID value has been entered and the cursor is moved to a different record.

How do I close MMS down completely?

When MMS is started, an icon appears in the system tray, and the main MMS program window opens. If this is closed by pressing the **X** button in the title bar, MMS closes the window, but remains running in the system tray.

To close MMS down completely, shutting down all drivers, data connections and remote access, right-click on the MMS icon and select Exit from the menu that appears.

I can't generate Reports.

Reporting may not work properly in MMS if another web server is running, or if an internet firewall is installed.

To see if the MMS Reports Server is running, check the MMS Log Window. (It may be necessary to resize the Log Window to see all log messages) If the web server is running properly it will say "Web Server Initialised Successfully" ([Understanding Error Messages](#))

4.2. Remote Access

MMS Remote Access

Frequently Asked Questions and Answers about Remote Access to MMS over a network.

MMS allows limited remote access to the MMS Database over a local network. This access is restricted to the use of Remote Drivers and Remote Reporting.

Remote Drivers

What are Remote Drivers?

Remote Drivers allow data to be imported into the MMS database from a remote PC.

Remote drivers act just like normal MMS drivers, but they need to be configured so that they connect to the right MMS database.

How do I use Remote Drivers?

When the Remote Driver is active, a driver icon appears in the system tray. 

The colour of the driver icon reflects the state of the driver - a blue icon (🟦) means the driver is active and connected to a running MMS database, a green icon (🟢) means the driver is inactive, but is connected to a remote MMS.

A red icon (🔴) means the driver is active but can't find the target MMS database, and a black icon (⬛) means the driver is not active, with no connection to a MMS database.

To configure the target remote MMS system, double-click the driver icon and enter the target network PC's host name or ID in the MMS Manager Connection section of the driver setup.

To close the Remote Driver, right-click on the icon in the system tray and select "Exit."

Can I use Remote Drivers alongside MMS on the same PC?

Yes, but the Remote Driver needs to be started and configured before running MMS or it will automatically be connected to MMS as a local driver.

If this happens, remove the driver from the MMS drivers list, exit MMS by right-clicking on the MMS icon in the system tray. Then restart the driver, configure it to the remote MMS location, and restart the local MMS.

Remote Reporting

What is Remote Reporting?

MMS runs a Remote Reporting service, which allows remote users to access the Reports section through a local network and a web browser.

To access this functionality, the remote user must know the name or IP address of the PC running MMS.

NOTE:

It is strongly recommended that User Logins are used with Remote Reporting. ([Setup User Logins](#))

How do I enable Remote Reporting?

You don't need to enable Remote Reporting, as the same service is used for reporting in MMS.

How do I access Remote Reporting from a different PC?

To access the Remote Reporting functionality, open Internet Explorer, and type the remote PC's IP address or network name (eg <http://192.168.100.129> or http://MMS_PC) in the address field.

If the address is correct, Internet Explorer should display the Reports window, with the Login page or the Reports page. This can then be used exactly like the Reports section in MMS.

NOTE:

For help with the PC network IP address or name, see your network administrator.

4.3. Error Messages

Understanding Error Messages

A description of MMS errors and their likely causes.

Pop-Up Error Messages (by MMS Section)

On MMS Start-Up

 **Error occurred while attempting to open TCP/IP Ports. Please check Network TCP/IP settings. Input and Output Drivers cannot function without TCP/IP.**

MMS uses TCP/IP to retrieve data from the drivers, as well as for the reports functionality. If MMS can't open these ports, then MMS can't import or export data, or create reports.

This error is most likely to occur on MMS start-up, but may occur when a new driver is added.

Try restarting MMS (exit by right-clicking on the system tray icon) or restart the PC. For more help with Network TCP/IP settings see your network administrator.

 **Database Location is invalid. Please check General Settings.**

This error message is generated if MMS cannot access the MMS database properly. This may be to several reasons:

1. The Database Location specified under Change Settings ([General Settings](#)) does not point to a valid database.
2. The wrong database is specified. (If using data from a previous MMS version, use LRDATA.MDB - not LRPROG.MDB).
3. The database is corrupt.
4. The database is read-only.

Main Tasks: Setup

Setup: General Settings

 **Database Location is invalid. Please check General Settings.**

This error message is generated if MMS cannot access the MMS database properly. This may be to several reasons:

1. The Database Location specified under Change Settings ([General Settings](#)) does not point to a valid database.
2. The wrong database is specified. (If using data from a previous MMS version, use LRDATA.MDB - not LRPROG.MDB).
3. The database is corrupt.
4. The database is read-only.

Error occurred while attempting to cleanup database '[filename]': [Reason]

This error message will be generated if MMS encounters an error while trying to clean up the database.

The database component that encountered the error will specify why the error occurred.

Setup: User Defined Fields

Unable to save to [filename] Please check file permissions.

This error may occur when exporting the User Defined Fields to a file if MMS was not able to save to the file name entered. Check the following:

1. The filename specified is valid
2. MMS is allowed to write to the location specified (eg network drives)
3. The file already exists and is read only

Setup: User logins

Unable to add new user. [DB Error Message]

MMS could not add the new user to the User Logins list for the reason specified (DB Error Message)

Unable to remove user. [DB Error Message]

MMS could not remove the user from the User Logins list for the reason specified (DB Error Message)

MMS: Drivers

Error occurred while initialising driver.

This error can occur when loading a driver on start-up, or when a new driver is added ([The Drivers Group](#)).

MMS can support a limited number of drivers (depending on the computer), so it may fail if too many drivers are already loaded.

Exit the driver if it loaded partially (check the system tray for the driver icon  - right-click on it and select "Exit"), then try to load the driver again.

Main Tasks: Browse Data

Browse Data: Export to CSV File

No fields to export.

This error message will pop up when there are no valid fields available to export. Check Filter/View Fields settings to show at least one field - only visible fields are exported ([Filter / View Fields](#)) .

No data to export.

This error message will pop up when there is no data available to export. Only visible data will be exported - check the current filter settings.

Unable to open file '[filename]'.

MMS could not create or open the file. This may be because:

1. The filename specified is not valid
2. MMS is not allowed to write to the location specified (eg network drives)
3. The file already exists and is read-only

Unable to overwrite [filename].

MMS could not create or open the file. This may be because:

1. The filename specified is not valid
2. MMS is not allowed to write to the location specified (eg network drives)
3. The file is read-only

Browse Data: Clear Records

No records found in range to be cleared.

There is no data in the specified date/time range.

No records to be cleared.

There is no data, or none that matches the current filters.

Error occurred while trying to open database.

MMS could not open the database, and so could not clear records.

 **Error querying database for Clear: [DB Error Message]**

MMS encountered some other database error.

Browse Data: Archive Records

 **Error occurred while trying to open database.**

MMS could not open the database, and so could not archive records.

 **No records found in range to be archived.**

There is no data in the specified date/time range.

 **Error occurred while compressing archive. [Reason]**

MMS encountered some error while compressing the archive.

 **Error occurred while saving archive.**

MMS could not save the archive

 **Error occurred while creating temporary database.**

MMS could not create a temporary database while archiving records. Check that there is enough free space on the disk, and that MMS is allowed to create files.

 **Error occurred while removing old temporary database.**

MMS could not remove the temporary database.

Browse Data: Retrieve Archived Records

 **Archive file [filename] is invalid.**

The archive location specified does not point to a valid MMS archive.

 **Could not open Archive file. [Reason]**

The archive may be corrupt, or is not a valid MMS archive.

 **Archive database structure is different to current database.
Operation cancelled.**

The archive specified is of a different structure. Most likely this is not an MMS

archive file.

 **Error occurred while attempting to retrieve data from archive. [DB Error Message]**

MMS could not retrieve data from the archive file for the reason specified in [DB Error Message].

Browse Data: Find Records

 **[Field] of value '[value]' was not found.**

MMS could not find a record that matches the criteria entered.

 **Beginning of data reached. [Field] of value '[value]' was not found.**

MMS could not find a record that matches the criteria before the current record.

 **End of data reached. [Field] of value '[value]' was not found.**

MMS could not find a record that matches the criteria after the current record.

 **Error querying database for Replace: [DB Error Message]**

MMS encountered a database error while attempting to replace some data fields.

 **No matching records found.**

MMS could not find any records that match the Find or Replace criteria.

Log Window Messages (by MMS Section)

"Log Window" messages are the messages recorded in the Log Window. These are generated on MMS start-up, whenever a driver is added or removed, or whenever MMS encounters an error.

MMS: Driver

Add Driver / Driver Info

 **Error occurred while initialising driver.**

This error can occur when loading a driver on start-up, or when a new driver is added ([The Drivers Group](#)).

MMS can support a limited number of drivers (depending on the computer), so it may fail if too many drivers are already loaded.

Exit the driver if it loaded partially (check the system tray for the driver icon  - right-click on it and select "Exit"), then try to load the driver again.

 **Driver '[DriverName]' Connected.**

The driver [DriverName] was loaded successfully and added to the MMS Drivers list.

 **Driver '[DriverName]' Disconnected.**

The driver [DriverName] was successfully disconnected and removed from the MMS Drivers list.

Incoming Data from Driver

 **Error occurred while attempting to add record - [Reason]**

MMS could not add a record to the Main Database - the received data was invalid or corrupted, so was ignored. More detail is given in [Reason].

MMS Setup

Setup: General Settings

 **Error occurred while attempting to cleanup database '[filename]': [Reason]**

This error message will be generated if MMS encounters an error while trying to clean up the database.

The database component that encountered the error will specify why the error occurred.

 **Cleanup of database '[filename]' was cancelled. [n] records processed, [n] duplicate records found, [n] records remain. Database Repaired and Compacted.**

The Cleanup action was cancelled by the user. (by pressing "Esc")

 **Cleanup of database '[filename]' completed successfully. [n] records processed, [n] duplicate records found, [n] records remain. Database Repaired and Compacted.**

MMS successfully cleaned and compacted the database - the number of records processed and the number of duplicate records removed are shown, as well as the updated number of records remaining.

Setup: Setup User Defined Fields

Unable to Initialise Web Server.

The reports server could not be started.

If the computer is already running a web server, it is possible to change the port MMS uses. Edit Tiny.INI in the MMS directory, and change the port to an unused port.

If the computer is running an internet firewall, ensure that it allows connections on Port 80 (or the port set in Tiny.INI)

After making any changes, exit MMS completely (right-click on the icon in the System Tray and select "Exit") then restart MMS.

Web Server Initialised Successfully.

MMS started the reports server successfully, and can now generate reports.

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