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Route Manager Series 7

# Mango Mapping

Advantage Route Systems, Inc.

We deliver, so you can!

**Version 1.01**

**Windows 7/8/10**

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Advantage Route Systems, Inc. Proprietary

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# Chapter 1 – Introduction

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## Overview

The Mango Mapping software has been designed to help you do a variety of mapping functions from within the Route Manager software. It uses the powerful Google Maps tool as its base mapping program.

You can seamlessly look at your route data on a map for a variety of functions. It is based on the on-line version of Google Maps, so you must have an internet connection to make this module work.

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## What it does

Mango Mapping is a powerful addition to your Route Manager program. It makes it easier to do route planning and can even help in your customer service department.

Here is a list of some of the basic features the system provides for your use:

1. GeoCoding - Perform mass address correction
2. Route Day optimization
3. Create territories or route areas
4. Multi-Day plotting
5. Truck tracking

Each of these features is described in the manual and will provide a tremendous benefit to your organization.

Other new functions will be added frequently as this product is released in 2017. For the most up-to-date list of functions and features, you will want to go to our web site at <https://advantagers.com/modules/mango-mapping/>.

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## What you need to make it work

You will need to have Route Manager software version 7.0.3R1 or later to use Mango Mapping. You will also need an internet connection so you can access the Google Maps tool.

When you have these two tools, you will be ready to start using this powerful mapping tool.

You may also find it helpful to have a large monitor – 24 inches or larger. In addition a video card that will support multiple monitors is even better. Some companies like to have a wall-mounted monitor with Truck tracking running continuously so all can see where trucks are on a large screen.

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**NOTE:** Mango Mapping requires Internet Explorer 10 or later. IE 10 is only supported on Server 2008 R2 and newer versions such as Server 2012 and Server 2016.

IE 10 is also supported on Windows 7, Windows 8.0 and Windows 10.

If you are not on one of these versions, you will need to upgrade.

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## Geo-coding your addresses

Generally speaking, unless you make a focused effort to clean up your customer addresses, about 30% of them are inaccurate. This can be due to a variety of reasons and may be just simple omissions like the word 'drive' or 'street' after the street name.

Unfortunately, there can be millions of things wrong with your address, such as:

- P. O. Box for a delivery address
- Misspelled street names: Floewr Street
- Wrong street name, Flower Mill Road instead of Flour Mill Road
- Wrong street type: Oak Court instead of Oak Lane
- Wrong direction: 183 S. Main instead of 183 N. Main
- Bad Abbreviations: 1433 Na'tln Hiwy
- Wrong ZIP codes
- Wrong City names
- Many more!

Until these have been identified and cleaned up, your mapping will be at best, suspect or incomplete and may cost your driver time as well as money because of these inaccuracies. Even though your route people can compensate, a computer program tends to be much less tolerable of this 'garbage' or inaccurate or incomplete information.

In addition, you will need a latitude and longitude for each customer. This is required for each address as you use the route

optimization process. Just use the Geocoding tool to get all addresses fixed.

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## Summary

Mango Mapping is a powerful tool that will save you literally thousands of dollars per year as you:

- Reduce Travel times
- Save on fuel
- Reduce capital expenditures by using your truck assets more effectively.

Whether you have 2 trucks or 200, Mango Mapping is the ideal tool for increase profits in your route operations.



# Chapter 2 – Setting up the System

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## Introduction

To set up the Mango Mapping system, there are several things that you will need to do.

1. Secure the proper serial number for this module. Each of these items are described in this chapter. It is important to complete all of the steps prior to using the system.
2. Verify you have an internet connection.
3. If you are using the Truck tracking portion of Mango Mapping, you will need to configure a few things as described below.

Generally, the amount of time spent on setup is small. Do note the items below and make sure your environment is set so you can use Mango Mapping for your operations.

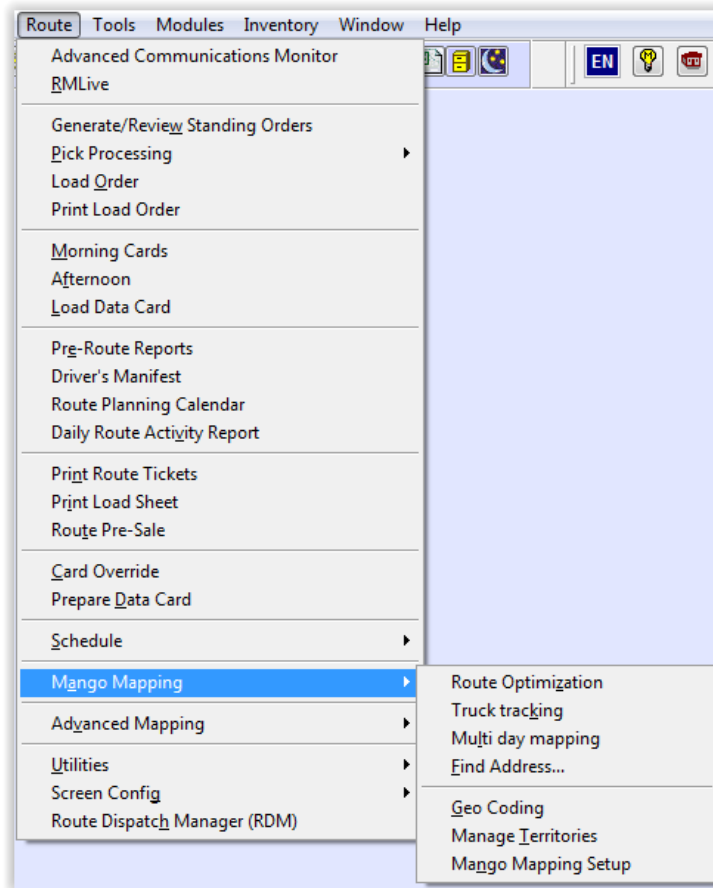
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## Upgrade your System

You must be on Route Manager 7.0.3R1 or later to use the Mango Mapping system. Mango Mapping was built in to Route Manager starting in January of 2017. If you are using an older version of the software, you must upgrade to this version.

**Note:** After you upgrade, you will want to configure your security settings so that you can gain access to Mango Mapping.

You will then see Mango Mapping appear on the ROUTE menu drop down, as shown below:



Be sure that your security settings are turned on for this module. If they are not set correctly, you will not be able to see the above menu.

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**NOTE:** Security settings can be found at Lists> Employee Setup> Security Level Codes.

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## Truck Tracking Configuration

In order to get started with using the Truck Tracking functionality, you will need to do some setup items.

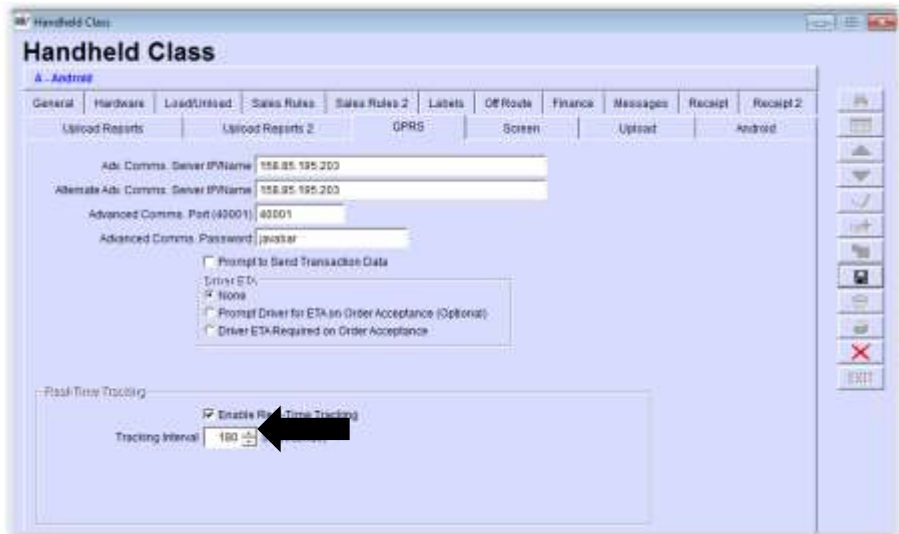
This includes:

1. Handheld class
2. RDM setup
3. Advanced Commucations

The daily operation of this function is described in Chapter 5.

## Handheld Class

The setup of Truck tracking requires you to go to: Lists > Routes > Handheld Class and go to the GPRS tab as shown below. There are only two options that need to be configured.



The screenshot shows the 'Handheld Class' configuration window with the 'GPRS' tab selected. The window has a title bar 'Handheld Class' and a subtitle 'A. Android'. Below the subtitle is a tabbed interface with tabs: General, Hardware, Load/Unload, Sales Rules, Sales Rules 2, Labels, Off Route, Finance, Messages, Receipt, and Receipt 2. The 'GPRS' tab is active, showing fields for 'Adi. Comm. Server IPName' (158.85.195.203), 'Alternate Adi. Comm. Server IPName' (158.85.195.203), 'Advanced Comm. Port (42001)' (42001), and 'Advanced Comm. Password' (jwskar). There are checkboxes for 'Prompt to Send Transaction Data', 'Driver ETA', 'Prompt Driver for ETA on Order Acceptance (Optional)', and 'Driver ETA Required on Order Acceptance'. A section titled 'Real-Time Tracking' contains a checked checkbox 'Enable Real-Time Tracking' and a 'Tracking Interval' dropdown menu set to '180'. A black arrow points to the '180' value in the dropdown.

### GPRS Tab -

**Enable Real-Time Tracking:** Check this box to enable real-time truck tracking.

**Tracking Interval:** Select the interval (in seconds) to send location data from the handheld to the office server.

You can save your settings and then continue. If you have more than one active handheld class, you will need to make this change to all classes that you would like to track.

## Route Dispatch Manager (RDM) Setup

If you are not familiar with RDM, it is available at the bottom of the Routes Tab. Select that and as RDM loads, you will want to go to Options, then Truck Tracking.

The screenshot shows the 'Options' window with the 'Truck Tracking' tab selected. The 'Route Track' section includes 'Stop Definition' with 'Number of Seconds at' set to 120 and 'Distance From Center' set to 200. The 'Speed Bands' section shows 'Green' at 0, 'Yellow' at 35, and 'Red' at 60. The 'Real Time Tracking' section has 'RTT Server Name / IP' set to 127.0.0.1, 'RTT Server Port' set to 40001 (indicated by a black arrow), and 'RTT Server Password' set to 123. A green checkmark button is at the bottom right.

There are three options that you will need to address:

### ***Real Time Tracking***

RTT Server Name / IP: Enter the internal IP address that Advanced Communications is installed. If the RTT server is installed on the same server as the Advanced Communications server, enter **127.0.0.1** as the IP address.

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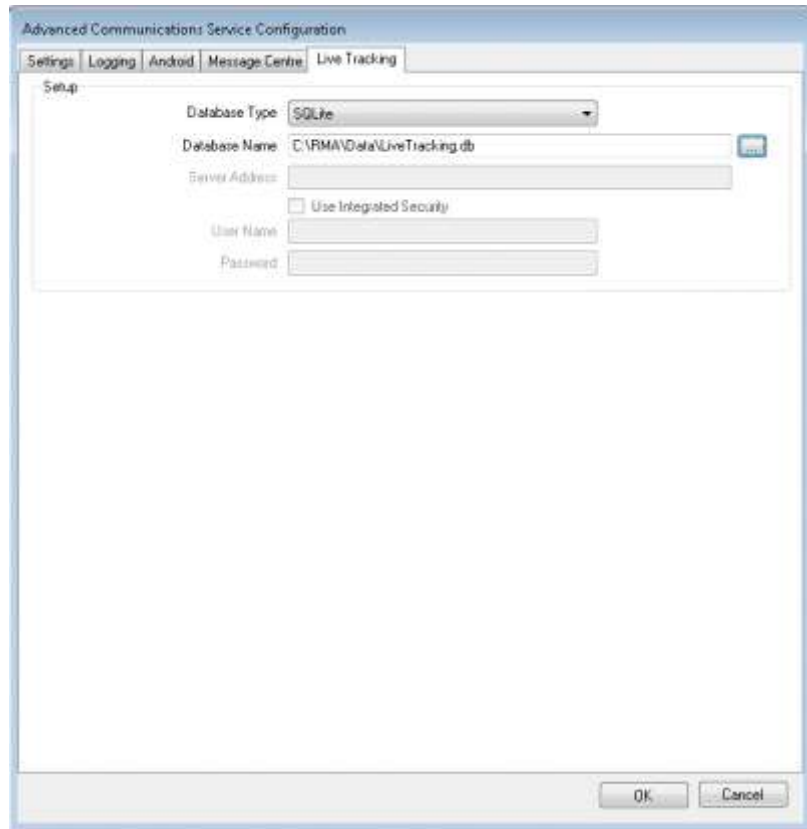
**NOTE:** The Advanced Communications settings can be found in Route Manager under *Lists> Routes> Advanced Communications Configuration*.

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RTT Server Port: The port number that Advanced Communications is using.

RTT Server Password: The password for Advanced Communications.

## Advanced Communications Service Configuration



The screenshot shows a Windows-style dialog box titled "Advanced Communications Service Configuration". It has five tabs: "Settings", "Logging", "Android", "Message Centre", and "Live Tracking". The "Live Tracking" tab is selected. Inside the dialog, there is a "Setup" section with the following fields: "Database Type" (a dropdown menu showing "SQLite"), "Database Name" (a text box containing "C:\RMA\Data\LiveTracking.db" with a browse button to its right), "Server Address" (an empty text box), "Use Integrated Security" (an unchecked checkbox), "User Name" (an empty text box), and "Password" (an empty text box). At the bottom right of the dialog are "OK" and "Cancel" buttons.

Enter the path to store the LiveTracking.db file. It is recommended that you store it in the RMA\data folder.

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## Summary

Once you have done these few configurations, you are ready to start using the Mango Mapping software. Just a few reminders in closing:

1. You need an internet connection to use Mango Mapping as we tie in to the online version of Google Maps.
2. The software is defaulted to our Pro version which is free. If you want additional functionality than that provided with the Pro Version, you will need to upgrade to either Mango Mapping Advanced or Enterprise versions. This can be acquired through Advantage Route Systems on-line ordering portal. See Appendix 'B.'



# Chapter 3 – Daily Operations - General

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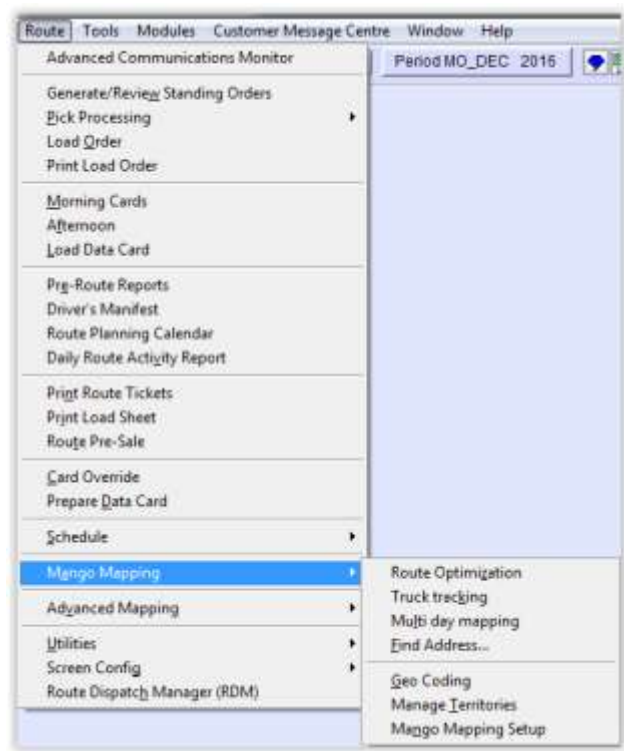
## Introduction

In this chapter you will learn about various routines you can use on a daily basis. Depending on your various requirements, you may only use a few of them. In larger organizations, you will find that various departments (customer service, logistics, routing and dispatching) may use different items in their group. Each may find a section of the manual helpful in determining what they can use for their group.

You may also determine that you can come up with other uses that are not even found in the manual. By using the base power of Google Maps with your data in Route Manager, you will be able to do all kinds of things that you never thought possible.

You will also see a new section for Mango Mapping under the Route menu, as shown below.

# Menu Selection



# Chapter 4 – Daily Operations

## Geo-Coding

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### Introduction

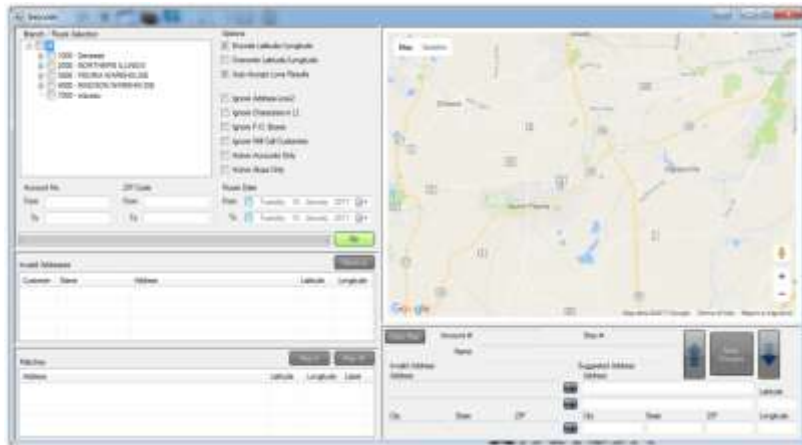
To get started with Mango Mapping, you will want to make sure that all of your addresses in Route Manager have a latitude and longitude assigned to them. While this is good to have in general, it is required for Route Optimization as this only works off of the latitude and longitude for each stop.

If you would like to learn more about this, please see Appendix 'C.'

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### Geo Coding Main Screen

The first screen that you will see as you come in



Before you can do a good job of using Mango Mapping, you need to have accurate addresses. Unfortunately, there can be millions of things wrong with your address, such as:

- P. O. Box for a delivery address
- Misspelled street names: Floewr Street
- Wrong street type: Oak Court instead of Oak Lane
- Wrong direction: 183 S. Main instead of 183 N. Main
- Bad Abbreviations: 1433 Na'tIn Hiwy

- Wrong ZIP codes
- Wrong City names
- Many more!

Until these have been identified and cleaned up, your mapping will be at best, suspect or incomplete and may cost your driver time as well as money because of these inaccuracies. Even though your route people can compensate —invoices mailed to the customer may still get there— when it comes to mapping, a computer program tends to be much less tolerable of this ‘garbage’ or inaccurate or incomplete information.

Select a route from the list to look up addresses to correct. You may also look up customers by account number or ZIP Code. Descriptions of the available options are listed below.

## Options

***Delivery Address:*** The customer’s delivery address. **Recommended setting: Checked.**

***Encode Latitude/Longitude:*** Enable this option to fill latitude and longitude in RMA. **Recommended setting: Checked.**

***Overwrite Latitude/Longitude:*** Enable this option to allow good addresses that already have latitude and longitude data to be overwritten.

***Auto-Accept Lone Results:*** Enable this option to speed up the address correction process. Otherwise all corrections will have to be approved one-by-one.

**Ignore Address-Line 2:** Enable this option to ignore address line 2 when comparing/matching addresses. Also prevents writing to this field in RMA.

**Ignore Characters in []:** Enable this option to ignore characters in square brackets in address fields. This allows extra information in address fields to not affect geocoding.

**Ignore P.O. Boxes:** Enable this option to ignore P.O. Boxes.

**Active Accounts Only:** Enable this option to ignore inactive accounts.

**Active Stops Only:** Enable this option to ignore inactive stops on accounts.

**Account No.:** Use these filters to limit process to addresses of certain customer accounts.

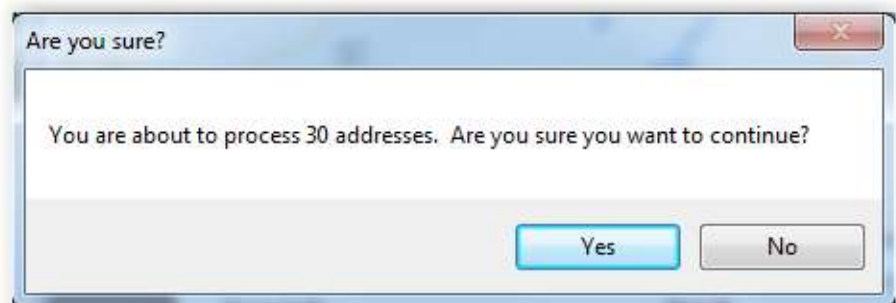
**ZIP Code:** Use these filters to limit process to addresses with certain ZIP Codes.

**Route Date:** Use these filters to limit process to addresses that are planned to be delivered to before/after selected dates. The filters will only be used when ticked.

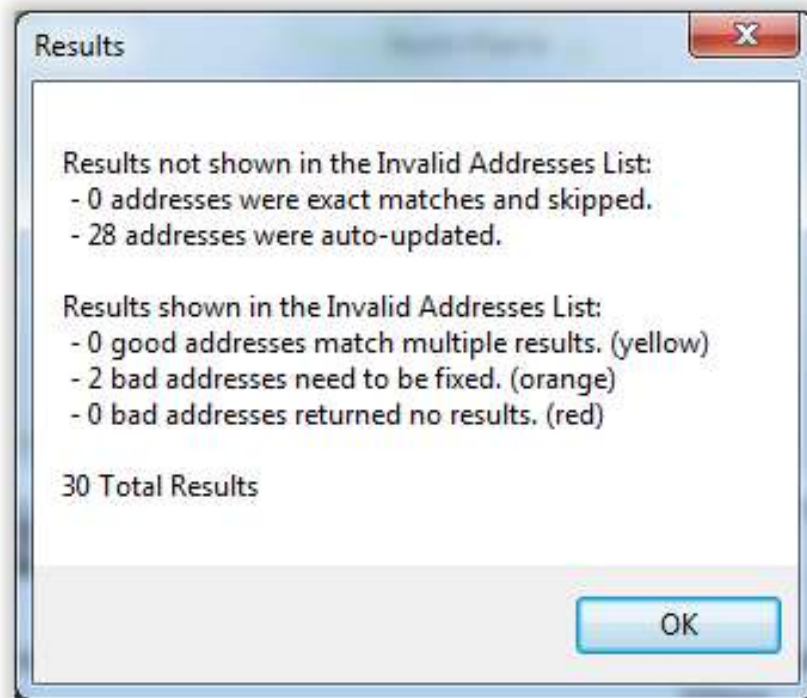
---

## Run Criteria

After you set the criteria for address correction, click the Go button. You will be presented with the following message showing how many addresses will be processed.



The results box shows the total number of items by category.



## Results NOT shown in the Invalid Addresses List

- **Addresses were exact matches and skipped:** These addresses were 100% correct, including latitude and longitude coordinates and did not need updating.
- **Addresses were auto-updated:** These addresses were correct, but were missing the latitude and longitude coordinates. The coordinates were automatically updated and saved in Route Manager on the Route TAB.

## Results shown in the Invalid Addresses List

- **Good addresses match multiple results. (yellow):** These addresses have multiple results. For example, West Main Street or East Main Street.
- **Bad addresses need to be fixed. (orange):** The address needs to be manually correct due to a misspelling or additional information in the address line.

- **Bad addresses returned no results. (red):** The address could not be located and corrected automatically.

Invalid Addresses: 2
Remove

Customer	Name	Address	Latitude	Longitude
014571	1ST AYD CORP...	PO BOX 5298, ELGIN, IL 601215298		
034446	CITY OF ELGIN PA...	ROUTE 20 & MCLEAN BLVD., ELGIN, IL 60123		

Matches: 1
Map It
Map All

Address	Latitude	Longitude	Label
Illinois Ave, Elgin, IL 60120, USA	42.02483	-88.26602	

**Invalid Addresses screen:** Click on an address to correct in the top box. A suggested address will be displayed in the lower box. Click on the address to copy the information to the Suggested Address fields.

Clear Map
Account #: 014571
Stop #: 01

Name: 1ST AYD CORPORATION

Invalid Address  
Address  
PO BOX 5298

Suggested Address  
Address  
ILLINOIS AVE

Latitude  
42.02483

City  
ELGIN

State  
IL

ZIP  
601215298

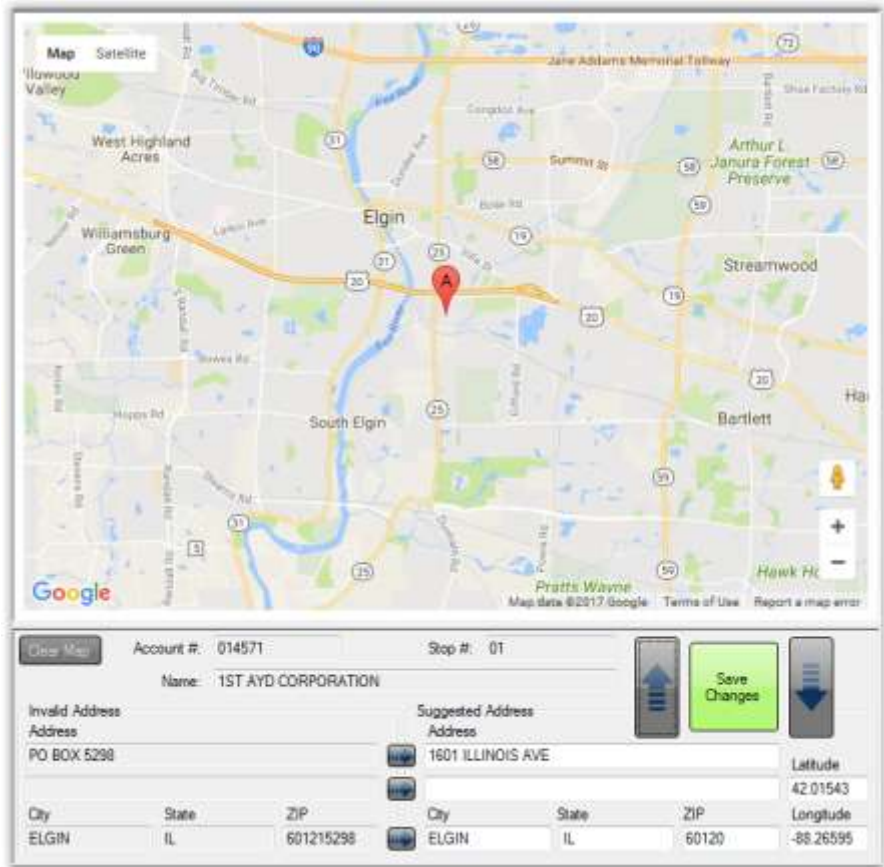
City  
ELGIN

State  
IL

ZIP  
60120

Latitude  
-88.26602

Save Changes



**Clear Map button:** Clears all pins on the map.

**Account #:** Customer account number.

**Name:** Customer Name

**Stop#:** Route stop number

## Invalid Address

**Address:** Displays the invalid address returned by the address lookup.

**City, State, ZIP:** Displays the invalid city, state and ZIP Code returned by the lookup.

## Suggested Address

**Address:** The address entered into this field can be plotted in the map if it is valid. If an address is entered here that you know to be correct or wish to use, RMA will be updated with this information.

---

## Plotting on Map

With address information in the Suggested Address section,



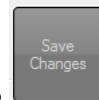
click the to plot the address on the map.

You can then use the mouse to move the pin to the exact location where the delivery will be made.

When you have located the correct address location, click



the button to get the latitude and longitude. When



you are satisfied with the address, click the .

---

## Summary

This is a very important step to do for you addresses. Without the latitude and longitude, you may not have the exact location to make your deliveries. In addition, if you do not have a good address, then this will pinpoint where your delivery is to be made.



# Chapter 5 – Daily Operations - Truck Tracking

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## Introduction

In this chapter you will learn how to use the Truck Tracking feature to see where your trucks are in real time. This can help you dispatch better, know where your trucks are at all times; reply to customer inquiries better and multitude of other functions.

To use the program is relatively easy – just open the screen and you will see the trucks as they move throughout the day. There is a button that lets you see and hide the criteria. That can be helpful if you would like to turn options on for traffic and weather, for example.

You do need to go through the proper setup process in order for the trucks to display. See notes below.

---

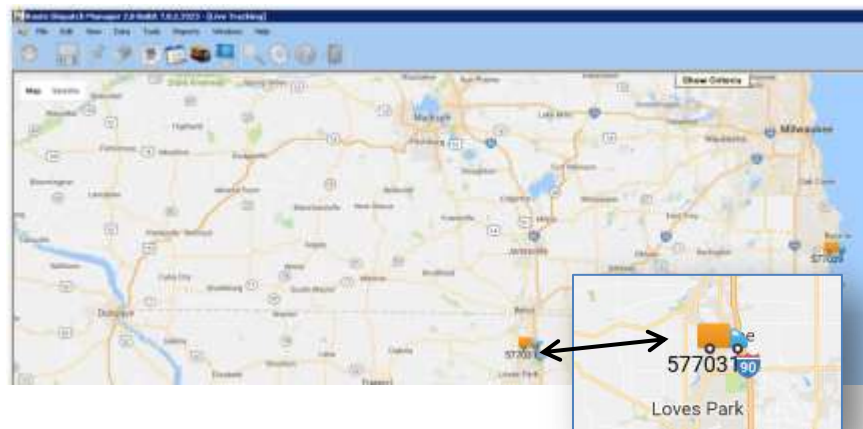
## Setup

The setup for Truck Tracking is described in Chapter 2. Here you will be able to setup the proper port as well as set parameters for how often you would like to collect data.

---

## Trucking Tracking Main Screen

The main Truck Tracking screen is fairly simple. As you choose this option from the Route Manager Menu, this is what you will see:

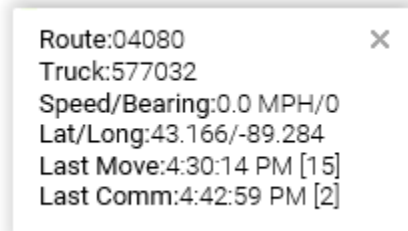


Note: Once you enter this screen, it may take a few minutes for the system to get data from the GPS devices and show your trucks on the screen.

---

## Information about a truck

If you would like to see more information about a truck, simply click on it. As you do so, a box will appear with the following information:



**Route:** The Route ID the truck is assigned to.

**Truck:** The Truck ID or license plate number that you set up in Truck Setup.

**Speed/Bearing:** The speed and direction of travel of the truck.

**Lat/Long:** The most recent latitude and longitude coordinates of the truck.

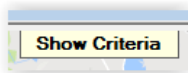
**Last Move:** The last time the truck moved. The number in [] is the last time the truck moved (in minutes). In this example it was 15 minutes ago. It will also say "Off" if it has not moved in 3 hours or more.

**Last Comm:** The last time the handheld communicated to the server. The number in [] is the last time the handheld communicated with the server (in minutes). In this example it was 2 minutes ago. It will also say "Off" if it has not communicated in 3 hours or more.

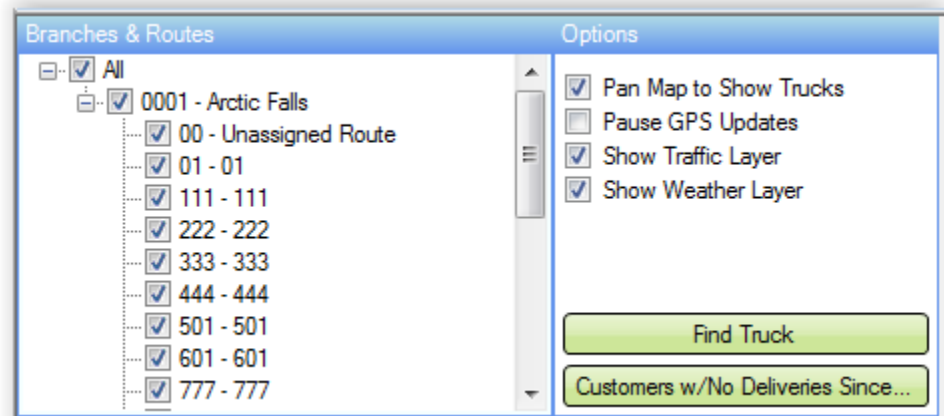
---

## Show Criteria

Show Criteria will let you make changes to how the map is viewed. This will let you choose different roués; add traffic and weather layers and other such information.



Click on the Show Criteria button at the top of the map to display the Branches & Routes and Options panel.



## Branches & Routes

Select the branch and route(s) for the trucks you would like to locate and track.

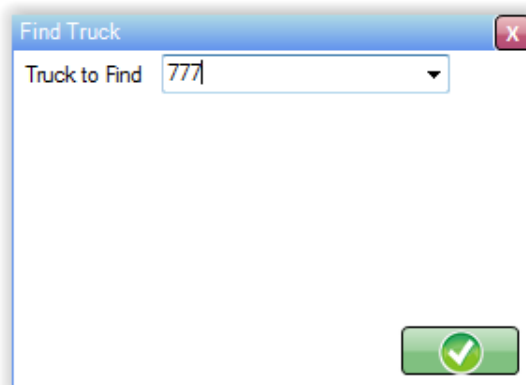
## Options

**Pan Map to Show Trucks:** Select this option to move/resize the map automatically as trucks are updated.

**Pause GPS Updates:** Select this option to pause updating the map with the truck(s) current location.

**Show Traffic Layer:** Select this option to add real-time traffic conditions to the map.

**Show Weather Layer:** Select this option to overlay current temperature and weather conditions.



**Find Truck:** This button shows the Find Truck panel allows you to locate an individual truck's current location.



***Customers w/No Deliveries Since...*** This button displays a panel that allows you to locate on the map, customers who have not had a delivery in the amount of time specified. This is helpful if you wish to contact those customers while the driver is in the area.

---

## Summary

With the Truck Tracking portion of Mango Mapping you now can see where your handhelds are throughout the day. The increased visibility will let you dispatch better and stay closer in touch to your field personnel.

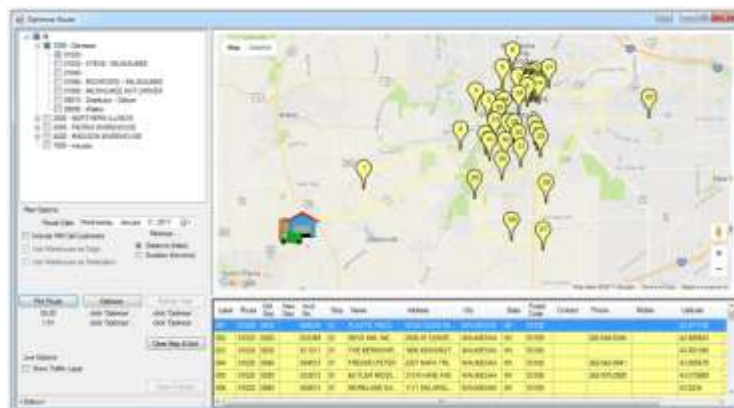
# Chapter 6 – Daily Operation – Route Optimization

## Introduction

Route optimization is done to simplify the routing process and make it as efficient as possible. The optimization process is for the day and route shown. The optimization is not permanent and will not change the delivery day for any customers.

This process works particularly well if you have a lot of will call customers or do service work where people call in and need service on an infrequent basis. It will take all customer assigned to a given route for a single date and put the stops into the best geographic order.

The person designated as the route manager or transportation director in your company can significantly improve your routing by using the Mango Mapping module in conjunction with Google Maps.



You will want to do this on a daily basis.

Initial Options

Route Date Monday, February 13, 2017

☒ Use Route Start Time 12:00 AM

☐ Include Will Call Customers

☒ Use Warehouse as Origin

☒ Use Warehouse as Destination

Optimize By

☒ Distance (miles)

☐ Duration (hrs:mins)

Clear Map & Grid

Plot Route Optimize Reverse Route

Original Optimized Custom

click 'Plot Route' ... click 'Plot Route' ... click 'Plot Route' ...

click 'Plot Route' ... click 'Plot Route' ... click 'Plot Route' ...

Live Options

☒ Show Traffic POI Options

Refresh Map

Export Directions Save Directions Save Changes

Place a checkmark next to the route you wish to optimize.

Select your options. See descriptions below.

## Initial Options

**Route Date:** Select the route date to be optimized.

**Include Will Call Customers:** Check this box to include will call customers in the route optimization.

**Use Warehouse as Origin:** Part of a future enhancement.

**Use Warehouse as Destination:** Part of a future enhancement.

**Optimize By:** Part of a future enhancement.

## Buttons

**Plot Route:** Places all route stops on the map using pins to mark the stops.

**Optimize:** Reorganizes the stops in the most efficient stop order.

**Reverse Route:** Click this button to display the optimized route in reverse order.

**Clear Map & Grid:** Clears all stops from the map and from the grid.

**Export Directions:** Exports the optimized route to .txt, .xls or .csv format.

**Save Directions:** Updates Driver Directions on the Route Info tab of Customer Information with turn-by-turn directions to the stop.

**Save Changes:** Saves optimized route data in RMA.

## Live Options

**Show Traffic Layer:** Shows the current real-time traffic conditions.

Label	Route	Old Seq	New Seq	Acct No.	Stop	Name	Address	City	State	Postal Code	Contact	Phone	Mobile	Latitude	Longitude
1	01000	0000	0000	000000	01	SMITH, JAMES	511 ALPINE RD	ROCKFORD	IL	61101		815/501-0101		42.352415	-90.122011
2	01000	0000	0000	000000	01	STOLP, ROBERT	128 MONROE ST	ROCKFORD	IL	61101				42.370888	-90.138891
3	01000	0000	0000	000000	01	4 MAP TERRACE	4410 W STATE ST	ROCKFORD	IL	61102				42.370371	-90.180729
4	01000	0000	0000	000000	01	VALDEZ, HENRI	3804 FOX AVE	ROCKFORD	IL	61103		815/385-0025		42.383081	-90.181700
5	01000	0000	0000	000000	01	ELDER, ANDREW	2715 S MAIN	ROCKFORD	IL	61102	JIM			42.383062	-90.171420
6	01000	0000	0000	000000	01	LODGE, MARY ANN	1212 S CENTRAL AVE	ROCKFORD	IL	61102		815/382-1807		42.382781	-90.174783
7	01000	0000	0000	000000	01	STOLP, JAMES	327 E CHURCH ST	ROCKFORD	IL	61101				42.381020	-90.097844
8	01000	0000	0000	000000	01	LINCOLN, TERRY	3806 E STATE ST STE 101	ROCKFORD	IL	61103	CHAD			42.380621	-90.077770
9	01000	0000	0000	000000	01	SHAW, MICHAEL	4710 MORRIS DRIVE	ROCKFORD	IL	61101				42.380762	-90.033003
10	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	5301 N STATE ST STE 111	ROCKFORD	IL	61108				42.384471	-90.044780
11	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	4301 GARRETT LANE #2	ROCKFORD	IL	61107		815/742-6807		42.374601	-90.387703
12	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1811 MADISON AVE	ROCKFORD	IL	61108		815/721-0578		42.371021	-90.032144
13	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	825 S ALPINE RD	ROCKFORD	IL	61103				42.371737	-90.088888
14	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1008 ROCKY ALPINE	ROCKFORD	IL	61103				42.374444	-90.030000
15	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 S ALPINE RD	ROCKFORD	IL	61108				42.382138	-90.038877
16	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877
17	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108	JENNIFER DODD			42.380000	-90.038877
18	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877
19	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877
20	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877
21	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877
22	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877
23	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877
24	01000	0000	0000	000000	01	WISNIEWSKI, FRANK	1803 CHARLES STREET	ROCKFORD	IL	61108				42.380000	-90.038877

**Label:** The pin number of the stop shown on the map.

**Route:** The stop's route ID.

**Old Seq:** The stop's sequence number before optimization.

**New Seq:** The stop's sequence number after optimization.

**Acct No.** The stop's account number

**Stop:** Stop number.

**Name:** The customer's name.

**Address:** The customer's address.

**City:** The customer's city.

**State:** The customer's state.

**Postal Code:** The customer's postal code.

**Contact:** The customer's contact name.

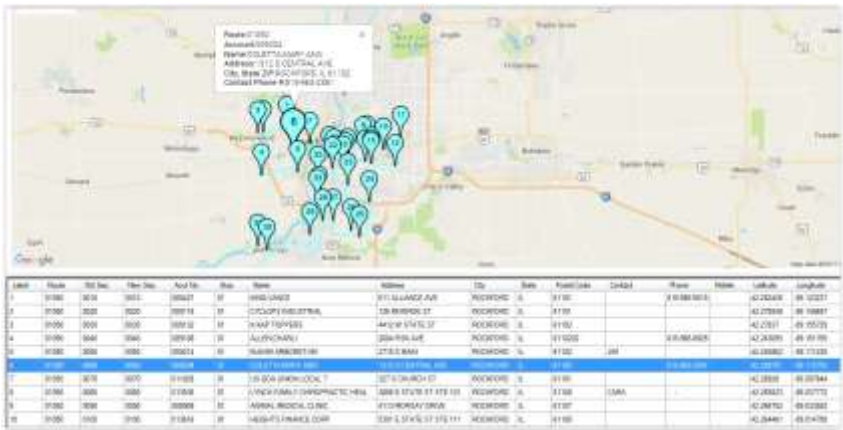
**Phone:** The customer's delivery phone number.

**Mobile:** The customer's mobile phone number.

**Latitude:** The latitude mapping coordinates.

**Longitude:** The longitude mapping coordinates.

This sample shows the stops after they have been optimized.



# Manually Move Stops

Old Seq	New Seq	Acct No.	Stop
0010	0010	003009	01
0020	0020	012194	01
0030	0030	011822	01
0040	0040	013607	01
0050	0050	012149	01
0060	0060	009159	01
0070	0070	012190	01
0080	0080	012166	01
0090	0090	012153	01
0100	0100	012923	01
0110	0110	014476	01
0120	0120	011885	01
0130	0130	001571	01
0140	0140	014694	01
0150	0150	001723	01

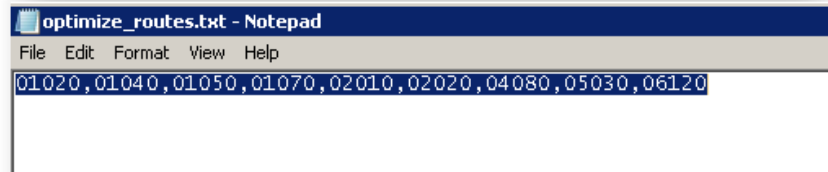
To manually move a stop, click the 'New Seq' column header and click on a stop to move. Hold down the mouse button and then move the stop up or down in the list.

Label	Route	Old Seq	New Seq ▲	Acct No.	Stop	Name	Address	City
001	01020	0010	0010	003009	01	LOWELL C. HAG...	W8092 COX RD	WHITE
002	01020	0020	0020	012194	01	M/K DRAWING ...	N6685 MILLARD...	Elkhom
003	01020	0030	0030	011822	01	HELENA CHEMI...	W6406 COUNTY...	ELKHO
004	01020	0040	0040	013607	01	LORD;COLLEEN	N6426 TAMARA...	ELKHO
005	01020	0050	0050	012149	01	BRAUN;CHRIS	N6072 SPRUCE ...	Elkhom
006	01020	0060	0060	009159	01	FALCON;BILL & ...	22 NW SEDGEM...	ELKHO
<b>011</b>	<b>01...</b>	<b>0110</b>	<b>0070</b>	<b>014476</b>	<b>01</b>	<b>MICHEL'S CO...</b>	<b>W4097 COUN...</b>	<b>ELKHO</b>
007	01020	0070	0080	012190	01	KOLDEWAY;DA...	262 W Centralia ...	Elkhom
008	01020	0080	0090	012166	01	Elkhom Family Cli...	100 S Washingto...	Elkhom
009	01020	0090	0100	012153	01	Chicago Title Ins ...	210 O'CONNER ...	Elkhom
010	01020	0100	0110	012923	01	WATERSTONE ...	210 O'CONNOR ...	ELKHO
012	01020	0120	0120	011885	01	AM TOWING	W4050 STATE ...	ELKHO
013	01020	0130	0130	001571	01	HALL;JOHN	N7788 BOWERS...	ELKHO

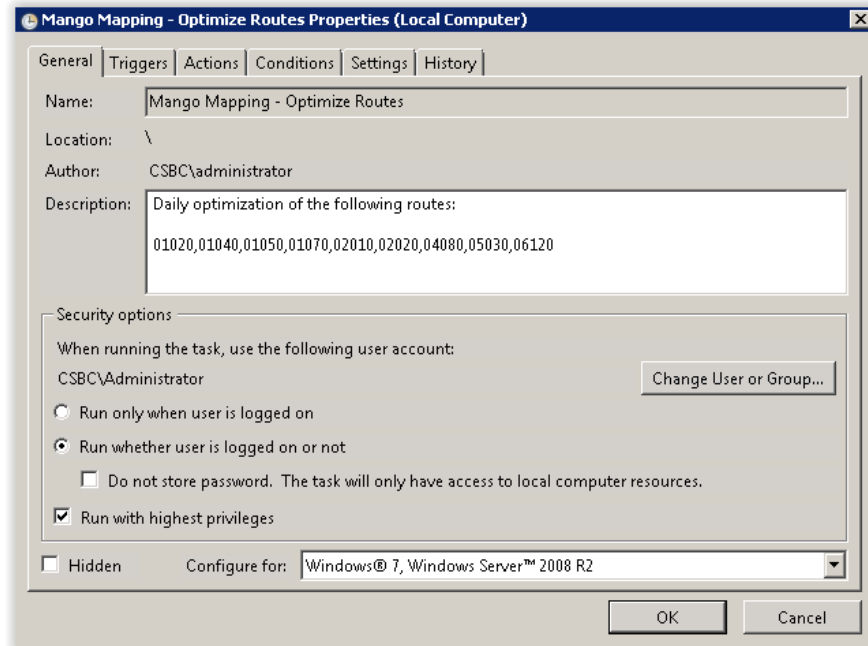
When the stop is moved, all of the original information, such as Label and Old Seq is retained, but the stop is updated with the new sequence. The stop is also displayed in bold text so you can easily find it if you want to move it again.

## Unattended Processing

Route optimization can be configured to run after hours so your routes will be in the correct order first thing in the morning.



You will need to first create a text file with a list of route IDs, separated by a comma, you wish to optimize. The file must be saved in the RMA\DATA folder as ***optimize\_routes.txt***.




---

**NOTE:** The following instructions are general guidelines for configuring a Windows Scheduled Task. Please refer to your operating systems documentation for complete details.

---

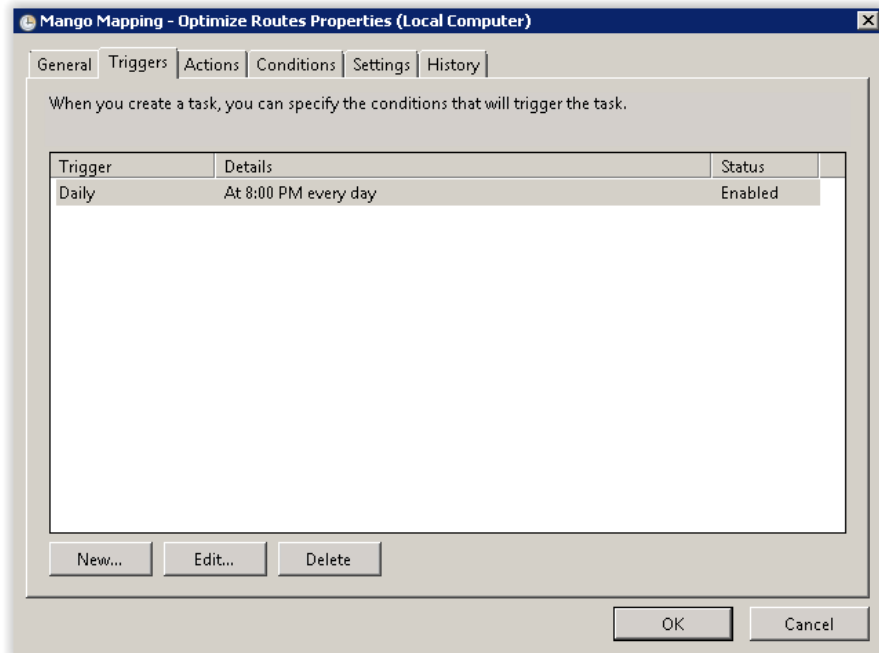
Create a Windows Scheduled Task to run the program unattended. Task Scheduler is on the Windows Start menu under Accessories> System Tools.

**Name:** Enter a name to identify the scheduled task.

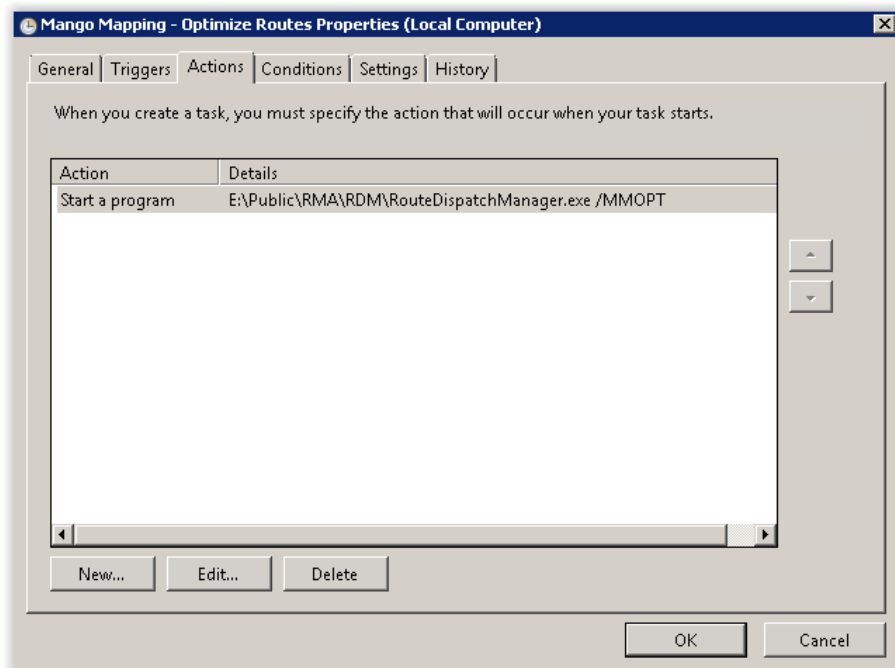
**Description:** It is recommended that you list the routes being optimized to easily identify the scheduled task. This is most helpful when creating multiple scheduled tasks.

**Security options:** Select the option to run whether user is logged on or not. You will need to configure the user credentials to log into the server. This is usually the server administrator's user name and password.

**Configure for:** Select the type of operating system being used.

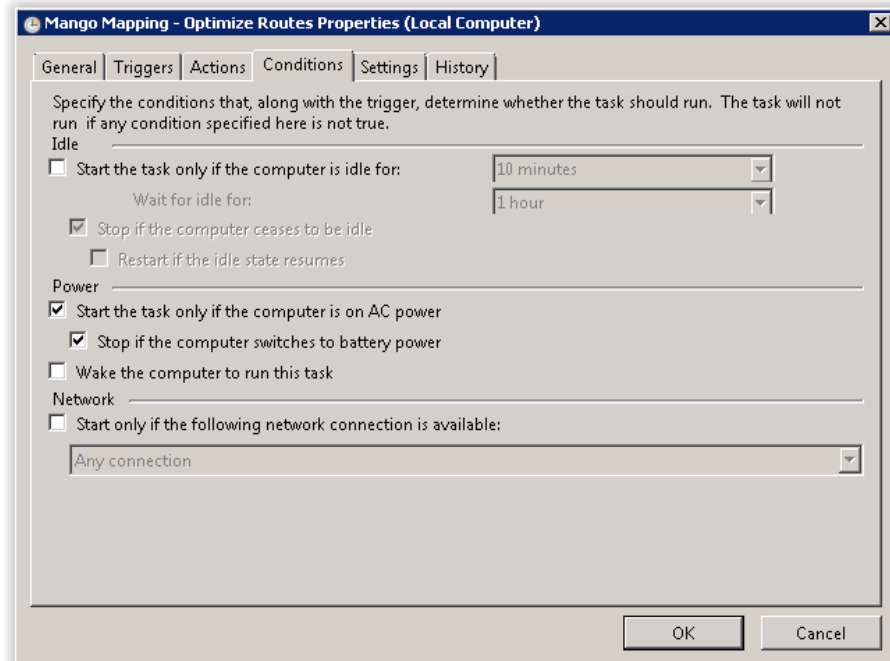


On the Triggers tab, create a new task to initiate the route optimization. There are several options for scheduling the task.

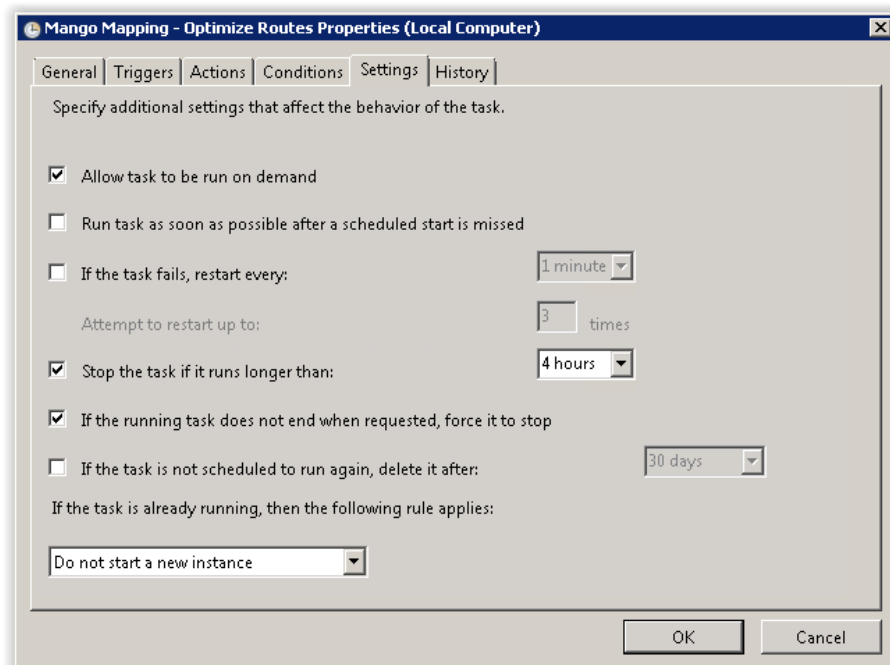


On the Actions tab, you will want to configure the task to start a program. Enter the path to RDM and Route Dispatch Manager. You will also need to add the extra parameter of /MMOPT. For example:

**C:\rma\rdm\RouteDispatchManager.exe /MMOPT**



Configure the options on the Conditions tab. The default settings are usually sufficient.



Configure the options on the Settings tab. The default settings are usually sufficient.

# Chapter 7 – Multi-Day Mapping

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## Introduction

This feature will be available in the R2 release of Mango Mapping.



# Chapter 8 – Daily Operation – Manage Territories

---

## Introduction

Using Google Maps you can define your route areas as they will be used in Mango Mapping. This option allows you to color-code routes within Mango Mapping; this is helpful as an extra step for further clarity within the mapping module.

If you had been using territories in MapPoint, you can import them directly into Mango Mapping. Contact the Customer Care group for information on how to do this.

---

## Drawing my areas

You will need to draw your areas to represent where each route or delivery day is. With this tool, you will be able to go up roads to draw the shapes that you need.



You can get to this area by selecting Mango Mapping > Manage My territories.

---

## Getting started

At this point you should choose the Drawing Color  of the  you want to create. Click the Draw Territory button to select the drawing tool. The features to do this are on the left of the Manage Territories screen.

In order to create your territory, you will draw a shape around the outlining roads. Single-click the location where you want to start your territory, move the mouse pointer to where you want the line to go. When you have finished outlining the territory, you should

be at the same point you started, single-click on the end point to finish or “let go” of the line. This will cause all the lines to join together and act as a box, which you can manipulate later. The white dots on the screen define the area and are points of inflection defining the curve as you jiggled the mouse pointer moving from point A to point B.

To the left of the Freeform tool is the Line tool. It will always draw a straight line from point A to point B. A series of short straight lines here or in Freeform can be used to develop a curved line. To start over, click File/Exit and do not save your changes.

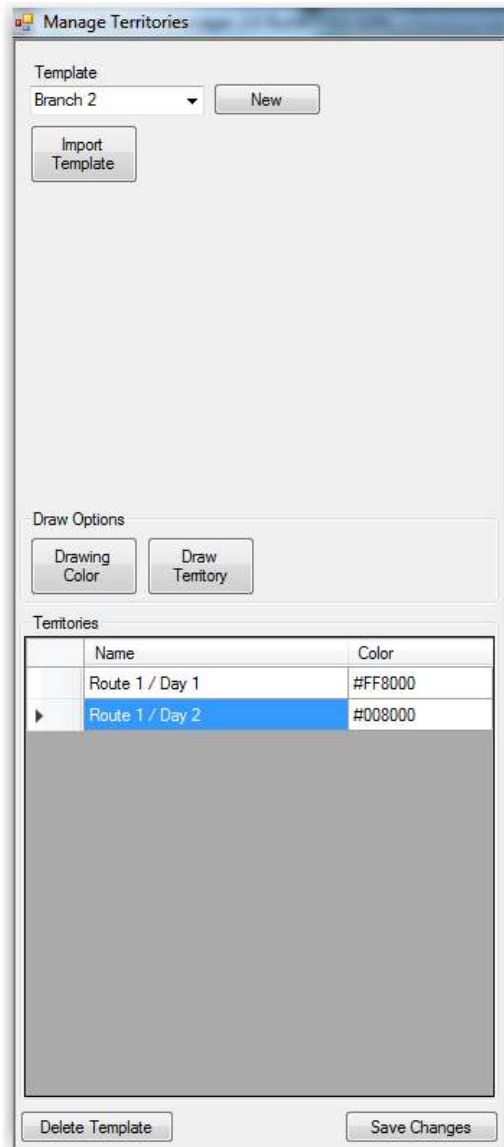
---

**IMPORTANT: Make sure you complete all of the sides of each territory. Even if there is a line from a previous territory, draw over it so the territory map will be complete.**

---

To add a label to your territory, select the text box icon

This completes the setup of one of your areas. If you wish to create more areas, change your Line and Fill colors, and repeat the above procedure until you have completed all territories.



## Template

Choose the template to be used.

**Import Template:** Click this button to import a MapPoint template. The template must first be exported as a .kml file.

## Draw Options

**Drawing Color:** Choose a color to fill in the territory.

**Draw Territory:** Tool used to define the territory on the map.

## Territories

Grid used to name each territory.

## Buttons

**Delete Template:** Deletes the currently displayed template.

**Save Changes:** Saves all changes to the template being displayed.

# Chapter 9 – Daily Operation – New Feature

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## Introduction

This is reserved for features that we will be placing in the R2 release due in March, 2017.

Check back with the on-line help or download a newer manual to see the features that we have added to Mango Mapping.



# Chapter 10 – Operational Tips

---

## Introduction

This section contains items that will make the process run smoother. Some may apply to installation, others to daily operation.

---

## Other tips:


Tips will be added from feedback as the software is developed and tested at various levels.

---

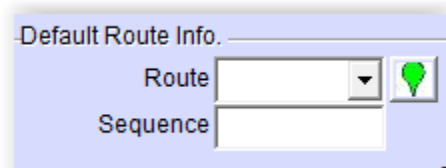
## Using Mango Mapping in Route Manager

There are several places where you can use Mango Mapping in Route Manager.

### Red Pins

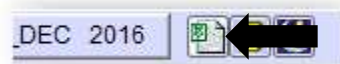
On the screens containing address information, you will see a red pin . Click this pin to open the Find Address screen and capture and update the address latitude and longitude coordinates.

### Nearby Customers

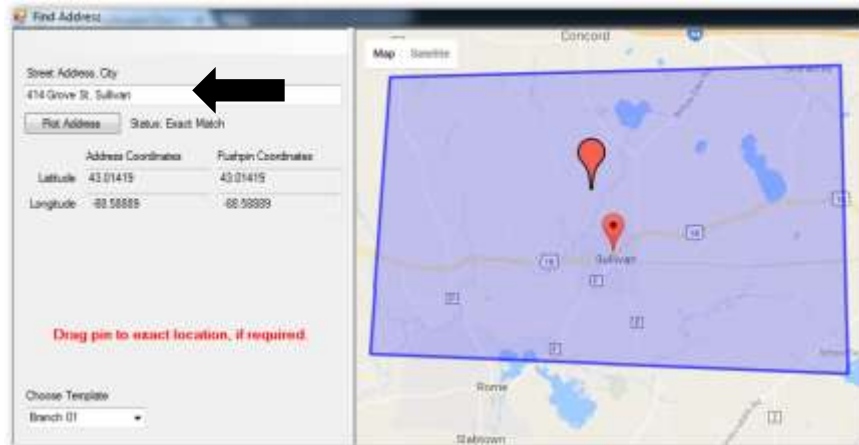


On the Customer Information> Route tab and the New Customer Wizard> Route tab, there is a green button that will show you other customers who nearby the customer you are working on.

## Find Address



The Find Address tool is located on the tool bar in Route Manager. This will open the Find address page.



Enter the street address and city and click the Plot Address button to get the latitude and longitude coordinates.

# Chapter 11 – Using Mango Mapping on your Android device

---

## Introduction

Not only can you use the Mango Mapping on the desktop, but you can also use it on your Android handheld as well. This allows your drivers to find delivery points faster – using the shortest distance to get there. Of course, we use Google Maps to do it.

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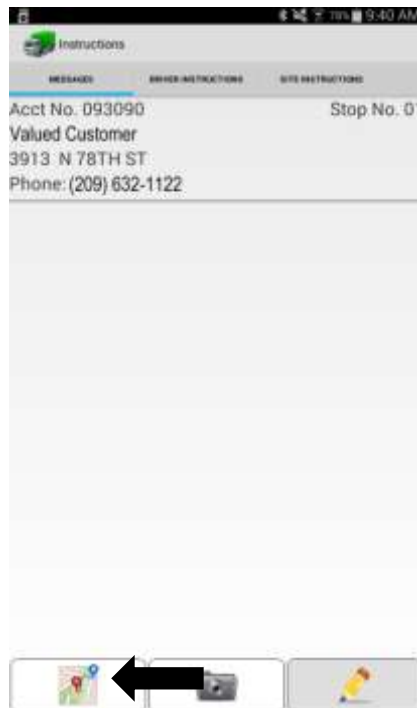
**NOTE:** You will need to enable the Android's Location function to allow mapping to locate your starting location.

---

---

## Take Me There

Tap and hold on a customer in the route list to access the customer instructions screen. Tap the Take Me There button to get turn-by-turn directions to the stop.



---

**Where is it again?**

# Appendix 'A' – Comparison chart of Mango Mapping versions

---

## Introduction

This section contains a chart showing the various functions of Mango Mapping. It explains what features are in all 3 levels of Mango Mapping – Pro, Advanced and Enterprise.

Ref	Feature	Pro	Advanced	Enterprise
1	Geo Coding	X (up to 500 names per batch) Rate: 1 per second	X (up to 5000 names per batch) Rate: 4 per second	X (unlimited names per batch) Rate: 8 per second.
2	Daily Route Optimization	Up to 3 routes per day.	X	X
3	Truck Tracking	X	X	X
4	Lookup / Plotting a single address	X	X	X
5	Lookup address within RMA (wizard)	X	X	X
6	Plotting multiple, simultaneous	X	X	X

Ref	Feature	Pro	Advanced	Enterprise
	routes			
7	Last invoice latitude/long display	X	X	X
8	10 closest customers – green dot	X	X	X
9	RDM / RM Live replacement		X	X
10	Route Track – end of day play back.		X	X
11	Sequencing on Handheld		X	X
12	Weather Layer		X	X
13	Map templates		X	X
—				
	Price / truck	Free with RMA	\$22 / mo. truck	\$38 / mo. truck

# Appendix 'B' – Upgrading from Pro to Advanced / Enterprise

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## Introduction

This section gives you instructions on how to upgrade from the Pro to Advanced versions of Mango Mapping. No matter what version of Route Manager you are using, you can upgrade to Advanced or Enterprise versions of Mango Mapping.

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## Key Differences

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## How to sign up

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## How you are billed

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## Summary



# Appendix 'C' – What is Geo-coding / Latitude and Longitude?

---

## Introduction

Some of our users may not be familiar with Latitude and Longitude. In this appendix, we look at the basics of geo coding and how they apply to your business.

---

## Why do we have Latitude and Longitude?

Back in 1851, Sir George Airy came up with the idea of establishing a prime meridian and the whole concept of latitude and longitude.

He thought that by establishing longitude (lines that run north and south around the globe and latitude lines – ones that run around the globe, they could better identify where ships were. This same system is in use around the world today.

---

## Key points about Latitude and Longitude

---

## How accurate is Latitude and Longitude

The following chart will help you understand about how accurate the decimal point is. This based on longitude at the equator.

Measurement	miles	KM
1 degree at the equator	70	115
.9 (1 decimal)	7	11.5
.99(2 decimal)	.7 (3500 feet)	1.15
.999(3 decimal)	.07 (350 feet)	.115
.9999(4 decimal)	.007 (35 feet)	.0115
.99999(5 decimal)	.0007 (3.5 feet)	.00115 about 1 meter!

---

## Summary

While you do not need to be a cartographer to understand latitude and longitude, it does help to have a basic knowledge. If this stimulates your interest, you can go to the Web to learn more. Just Google it!

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