RAND McNALLY

MileMaker® SP32

MILEMAKER®

User Guide

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User Guide

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INTRODUCTION

Chapter 1

Chapter Contents

Introduction

Thank you for purchasing MileMaker® SP32. MileMaker is the most widely used and accepted mileage and routing system in the transportation industry, and the only computerized version of the Household Goods Mileage Guide (HHG)—the industry standard for determining highway mileages.

As soon as you install MileMaker, you can use it immediately to:

- Retrieve precise HHG mileages.
- Simplify rate negotiations.
- Determine cost effective Practical Routes.
- Reduce audit disputes.
- Determine driver payroll.
- Report fuel taxes.
- Verify out-of-route miles.
- Facilitate dispatching.
- Estimate time of arrival.

You can use MileMaker with confidence because the system provides consistent mileages time after time, regardless of the number of stop-offs or the remoteness of the destination. This unparalleled consistency is the result of MileMaker's extensive and precise database, containing a record of every segment of state, provincial, federal, and interstate highway in the United States, Canada, Mexico and Puerto Rico.

System Requirements

Windows Stand-Alone

To run MileMaker SP32 on a Windows Stand-Alone system, you will need:

- Windows® Vista Business, Windows® 2003 server or Windows® XP SP2.
- 32 MB of RAM.
- 60 MB of available hard drive space.
- CD drive

Local Area Network (LAN)

To run MileMaker SP32 on a LAN system, you will need:

- Windows® 2003 Server, Windows® Vista Business, or Windows® XP SP2
- 64 MB of RAM.
- 60 MB of available hard drive space.
- CD drive

Installation Instructions

Installing MileMaker SP32

The MileMaker SP32 installation retains the current MileMaker SP32 settings during the update process.

1. Place the MileMaker SP32 CD in the CD-ROM drive.
2. Terminate any active programs running on the system.
3. On the taskbar, click the Start button and then click Run.
4. In the Run dialog box, type D:\setup, where D: represents the letter of your CD-ROM drive and click OK.
5. Follow the on screen prompts to complete the installation.

Once the installation is complete, you will not need the CD-ROM to run MileMaker SP32.

Installing the MileMaker SP32 Excel Add-In

The MileMaker SP32 Excel add-in, **mmexcel.xla**, adds optional commands and features to Microsoft Excel for use with MileMaker SP32. To install this add-in, follow the process detailed below.

Note: MileMaker SP32 must be installed before proceeding.

Step 1 - Install and Load the Excel Add-In

This step installs the MileMaker SP32 Excel add-in, **mmexcel.xla**. Once installed in Excel, this add-in is referred to as the **mmexcel** add-in.

➲ To install and load the Excel add-in:

1. Start Microsoft Excel.
2. On the **Tools** menu, click **Add-Ins**. The **Add-Ins** dialog box appears.
3. Click **Browse**, and then locate the add-in.
   The add-in is located in the **c:\program files\rand mcnally\mmaker32\excel** folder.
4. Select the file **mmexcel.xla** in the folder described in the previous step, then click **OK**. The **mmexcel** add-in appears in the **Add-Ins available** box.
5. In the **Add-Ins available** box, make sure the **mmexcel** check box is selected, and then click **OK**.
   The MileMaker SP32 Excel add-in is now ready for use.

Step 2 - Register the Excel Add-In OCX Control Manually

In the event that the Excel add-in is still not functioning properly, you may need to register the Excel add-in OCX manually.

To register the Excel add-in OCX control:

1. Exit Excel.
2. Click **Start**, and then click **Run**. The **Run** dialog box appears.

3. In the **Open** box, type

   regsvr32 "**c:\program files\rand mcnally\mmaker32\bin\IntelliTextExcelSA.ocx**"

   and then click **OK**.

Note: If you did not take the default installation location, please replace the **c:\program files\rand mcnally** in the command above, with the location that you used to install the MileMaker product.

   A window will appear indicating that the IntelliTextExcelSA.ocx has been registered successfully.

4. Click the **OK** button and restart Excel again.

Using Rand McNally Motor Carriers' Road Atlas with MileMaker SP32

When MileMaker SP32 generates a route, it includes helpful references to page numbers and coordinates in the Rand McNally Motor Carriers' Road Atlas. To view these references, select Map/View/Itinerary only. This forces the Itinerary to fill the MileMaker workspace. The furthest column to the right is titled "Motor Carriers' Key." The entries in this column refer to page numbers and page coordinates for each leg of the route.

➲ The Motor Carriers' Key column can also be displayed by:

- Dragging the center bar that splits the Map View and Itinerary View to the right with the cursor

  or

- Using the Itinerary View scroll bar to scroll the itinerary view to the right.

Motor Carrier Reference keys can also be viewed from the map for most locations. This can be useful when providing a driver directions over the phone.

➲ To view reference keys from the map:

- Select Show Locations on the tool bar and enter location

  or

- Click on the location using the mouse and then click on the Show Locations tool bar.

Using Latitude and Longitude Inputs with MileMaker SP32

Numeric values for latitude and longitude can be used as input coordinates for MileMaker SP32.

➲ To view locations with latitude and longitude inputs:

1. Select Show Location in the MileMaker SP32 toolbar.
2. Make sure your cursor is located in the Locations entry field.
3. Type your latitude and longitude pair using up to six decimal places separated by a space. For example: 38.67 90.25

4. Select Show. Your map view will now display the location with a label designating the point on the map.

You can also use latitude and longitude point pairs in the creation of practical routes.

➲ To use latitude and longitude points as pairs in routing:

1. Select Practical Route.
2. In the Locations entry field, type in the latitude and longitude point pair. The latitude value must be first, followed by a space and the longitude value, and both should be up to six decimal places. For example: 38.67 90.25
3. An entry will appear in the locations validation box. Select the top entry and choose Add to move that location into the list of routable points.
4. If a point is not found, a browse screen will be displayed.
5. Continue until all desired routable points have been added.
6. Select Calculate. MileMaker will then display a map and itinerary.

Integrating MileMaker on Your LAN or with Other Applications

There are two basic methods for integrating MileMaker SP32 into your applications or enterprise environment:

1. Dynamic Link Library (DLL) - this is a programming interface specification that allows you to write applications that request mileage and routing lookups (see the MileMaker DLL Technical Reference Guide for details).
2. Local Area Network (LAN) - this allows MileMaker SP32 to operate over a LAN (refer to MileMaker LAN technical guide for more information).

Both options may require additional licensing arrangements. Please contact your sales representative for more information.

Technical Support

Telephone support is available at Rand McNally & Company Technical Support at (800) 234-4069 Monday through Friday between 8 a.m. and 5 p.m. CST.

MILEMAKER INQUIRY TYPES

Chapter 2

Chapter Contents

Introduction

This chapter describes the different types of route and mileage inquiries available in MileMaker SP32.

To select an inquiry in MileMaker you must know:

1. Whether you want to process your inquiry using HHG rules or Practical Routing.
2. Whether you want to produce a *mileage* inquiry or a *route* inquiry.

HHG and Practical Inquiries

HHG Inquiries

When you process an HHG inquiry, MileMaker determines the shortest distance between any two locations over truck-usable roads, based on the most current version of the Household Goods Mileage Guide (HHG). All HHG inquiries give you HHG Tariff Mileages, which are used universally for freight rating and auditing.

The MileMaker database incorporates all of the complex HHG rules that affect route determination and uses only those highways, bridges, and ferries designated as truck authorized by the Household Goods Mileage Guide (HHG).

Note: Routes derived from this feature generally incorporate highways from the Surface Transportation Assistance Act ("STAA") and the National Highway System ("NHS") networks. However, not all locations can be accessed on the STAA network. Therefore, in some cases your route results may contain non-STAA highways.

Practical Inquiries

When you select a practical inquiry, MileMaker calculates the most time- and fuel-efficient route between the locations entered. Practical Routes are not calculated with HHG tariff rules. The Practical Route State Mileage Breakdown mileages are acceptable for fuel tax reporting and dispatching, driver payroll, verification of out-of-route miles, and estimating time of arrival.

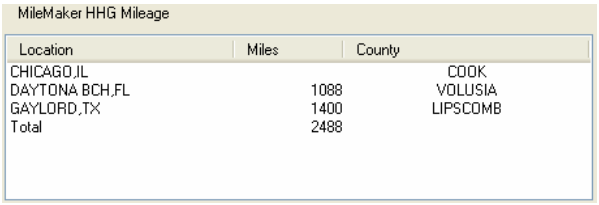
Mileage Inquiries

A mileage inquiry produces a report that shows the number of miles between the locations you have entered into MileMaker. You can select three different mileage inquiries in MileMaker: the HHG Standard Mileage Inquiry, the HHG Origin to Multiple Destinations Inquiry, and the Practical Mileage Inquiry.

HHG Standard Mileage Inquiry

The HHG Standard Mileage Inquiry provides mileages between sequentially entered pairs of locations. The returned mileage is the shortest using HHG rules and approved truck-usable roadways.

Figure 2-1: Sample output from HHG Standard Mileage Inquiry



➲ To select an HHG Standard Mileage Inquiry:

- On the toolbar, click **HHG Mileage**.

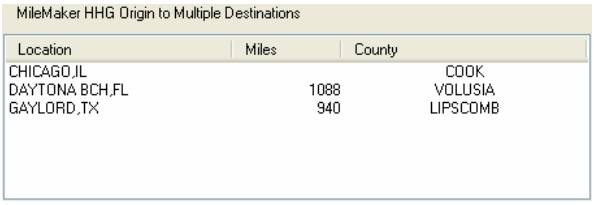
  or

- On the Mileages menu, select **HHG Mileage.**

HHG Origin to Multiple Destinations Inquiry

The HHG Origin to Multiple Destinations Inquiry provides mileages between a single origin and multiple destinations. The returned mileage is the shortest using HHG rules and approved truck- usable roadways.

Figure 2-2: Sample output from HHG Origin to Multiple Destinations Mileage Inquiry



➲ To select an HHG Origin to Multiple Destinations Mileage Inquiry:

- On the toolbar, click **HHG Origin**.

  or

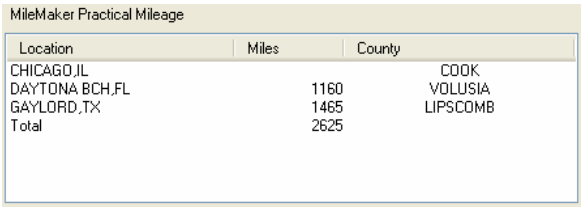
- On the Mileages menu, select **HHG Origin.**

Note: If you are executing either of the above HHG mileage inquiries, you can specify whether MileMaker should return a zero mileage or an error message when the same location is entered as both the origin and destination. For details, see Customizing an HHG Mileage Inquiry on page 29.

Practical Mileage Inquiry

The Practical Mileage Inquiry provides Practical Route mileages between sequentially entered pairs of locations. The returned mileage reflects the most time- and fuel-efficient route.

Figure 2-3: Sample output from Practical Mileage Inquiry



➲ To select a Practical Mileage Inquiry:

- On the Mileages menu select **Practical Mileage**

Route Inquiries

A route inquiry produces a report with detailed route information. A route inquiry can also provide a *State Mileage Breakdown*, which shows the shortest distance traveled in each state along the specified route. You can select six different route inquiries in MileMaker. There are three Practical Route inquiries: the Practical Route Inquiry, the Practical Route with State Mileage Breakdown Inquiry, and the Practical Route—State Mileage Breakdown Only Inquiry. There are also three HHG route inquiries: the HHG Audit Route Inquiry, the HHG Full Route with State Mileage Breakdown Inquiry, and the HHG Route—State Mileage Breakdown Only Inquiry.

Practical Route Inquiry

The Practical Route Inquiry provides detailed information on the most time- and fuel-efficient route between the locations entered. A Practical Route can be calculated in miles or kilometers.

➲ To select a Practical Route Inquiry:

- On the toolbar, click **Practical Route**, or on the Routes menu, select **Practical Route.**

The output from a Practical Route inquiry will look like the output shown in Figure 2-4, but without the State Mileage Breakdown information displayed the lower left list box.

Practical Route with State Mileage Breakdown (SMB) Inquiry

The Practical Route with State Mileage Breakdown Inquiry provides the Practical Route along with State Mileage Breakdown information.

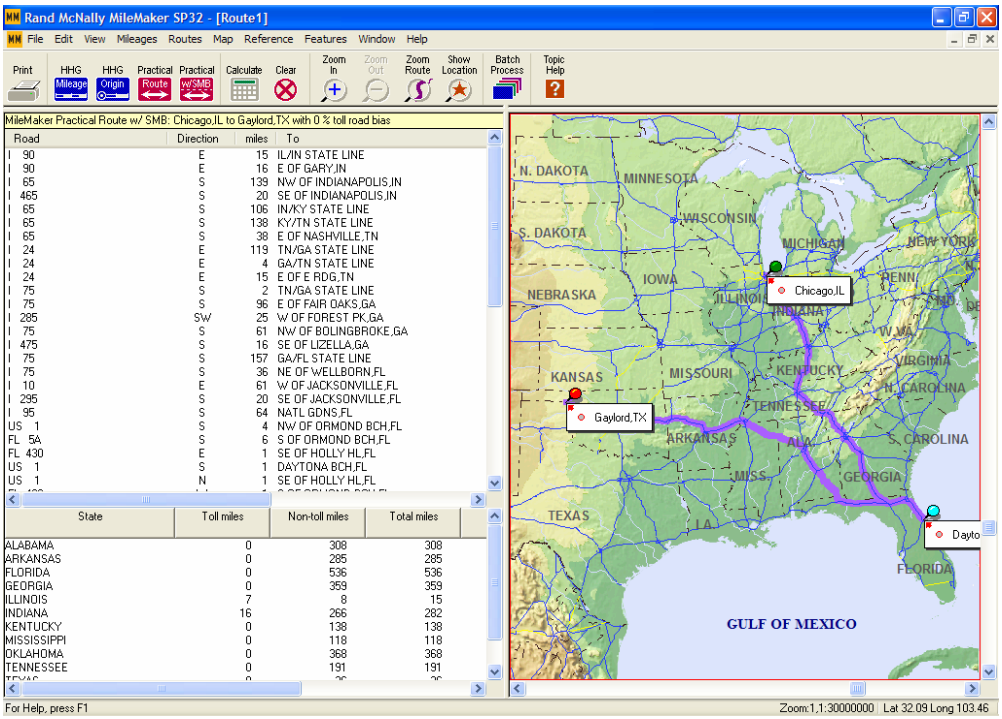


Figure 2-4: Output from Practical Route with State Mileage Breakdown Inquiry

The Practical Route displays the highway name, road direction, total miles traveled on the road, the location, accumulated time, and miles for the locations entered. The State Mileage Breakdown appears below the Practical Route.

➲ To select a Practical Route with State Mileage Breakdown Inquiry:

- Press **Practical Route w/SMB** on the toolbar or on the Routes menu, select **Practical Route w/SMB.**

Practical Route—State Mileage Breakdown Only Inquiry

The Practical Route—State Mileage Breakdown Only Inquiry displays the distance traveled in each state along the practical route.

➲ To select a Practical Route—State Mileage Breakdown Only Inquiry:

- On the Routes menu select **Practical Route SMB only**
- The output from a Practical Route—State Mileage Breakdown Only Inquiry will look like the output shown in Figure 2-4, but will show only the State Mileage Breakdown information displayed in the lower left list box.

HHG Route Inquiries

HHG Audit Route Inquiry

The HHG Audit Route displays mileages between key point to key point cities used in the route. Predetermined key point distances are listed in the mileage chart of the Household Goods Mileage Guide (HHG). The HHG Audit Route also shows the actual roads used, the direction traveled, and the number of miles on each road between key points and non-key points. If both points in a request are key points, only the mileage will be displayed.

Figure 2-5: Sample Output from an HHG Audit Route Inquiry

Road	Direction	miles	To	Time	Distance	Notes	Motor Carriers' Key
I 90	E	15	IL/IN STATE LINE		15	TB	p.36-37,A-4
I 90	E	0	NW OF WHITING,IN		15	TB	p.36-37,A-4
US 20	E	7	E OF HAMMOND,IN		22		p.36-37,A-4
IN 152	S	3	NW OF HIGHLAND,LA,IN		25		p.36-37,A-4
US 41	S	87	S OF CARBONDALE,IN		112		p.36-37,G-4
IN 63	SW	63	N OF TERRE HAUTE,IN		175		p.36-37,L-4
US 41	S	114	IN/KY STATE LINE		289		p.36-37,S-3

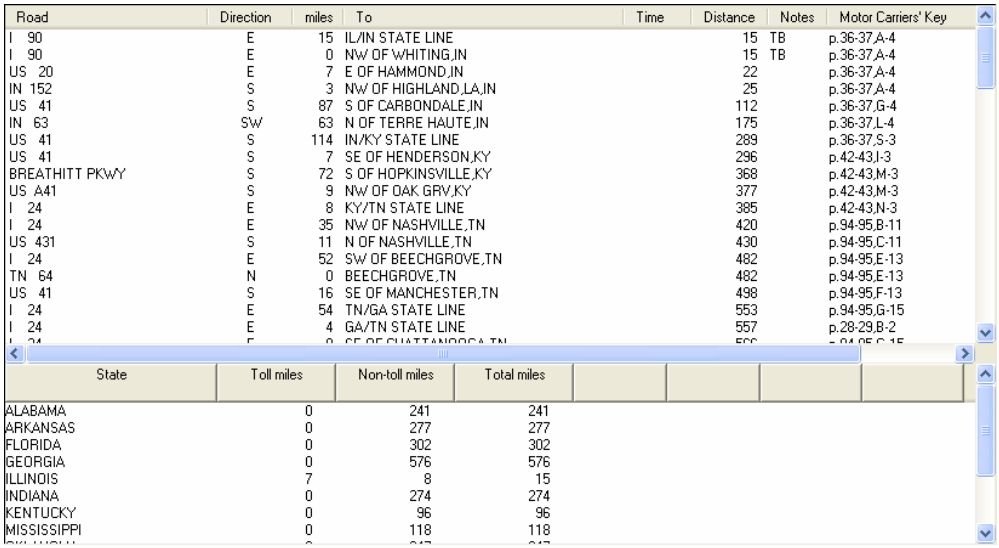
➲ To select an HHG Audit Route Inquiry:

- On the Routes menu select **HHG Audit Route**

HHG Full Route with State Mileage Breakdown Inquiry

The HHG Full Route with State Mileage Breakdown Inquiry provides the shortest distance route between two points (calculated in accordance with the rules of the Household Goods Mileage Guide (HHG)) along with a breakdown of the distance traveled in each state.

Figure 2-6: Sample Output from HHG Full Route with State Mileage Breakdown Inquiry



Road	Direction	miles	To	Time	Distance	Notes	Motor Carriers' Key
I 90	E	15	IL/IN STATE LINE		15	TB	p.36-37,A-4
I 90	E	0	NW OF WHITING,IN		15	TB	p.36-37,A-4
US 20	E	7	E OF HAMMOND,IN		22		p.36-37,A-4
IN 152	S	3	NW OF HIGHLAND,LA,IN		25		p.36-37,A-4
US 41	S	87	S OF CARBONDALE,IN		112		p.36-37,G-4
IN 63	SW	63	N OF TERRE HAUTE,IN		175		p.36-37,L-4
US 41	S	114	IN/KY STATE LINE		289		p.36-37,S-3
US 41	S	7	SE OF HENDERSON,KY		296		p.42-43,I-3
BREATHITT PKWY	S	72	S OF HOPKINSVILLE,KY		368		p.42-43,M-3
US A41	S	9	NW OF OAK GRV,KY		377		p.42-43,M-3
I 24	E	8	KY/TN STATE LINE		385		p.42-43,N-3
I 24	E	35	NW OF NASHVILLE,TN		420		p.94-95,B-11
US 431	S	11	N OF NASHVILLE,TN		430		p.94-95,C-11
I 24	E	52	SW OF BEECHGROVE,TN		482		p.94-95,E-13
TN 64	N	0	BEECHGROVE,TN		482		p.94-95,E-13
US 41	S	16	SE OF MANCHESTER,TN		498		p.94-95,F-13
I 24	E	54	TN/GA STATE LINE		553		p.94-95,G-15
I 24	E	4	GA/TN STATE LINE		557		p.28-29,B-2

State	Toll miles	Non-toll miles	Total miles
ALABAMA	0	241	241
ARKANSAS	0	277	277
FLORIDA	0	302	302
GEORGIA	0	576	576
ILLINOIS	7	8	15
INDIANA	0	274	274
KENTUCKY	0	96	96
MISSISSIPPI	0	118	118

Each route displays the highway name, road direction, the number of miles on each segment of road, nearest junction or city name, cumulative miles traveled, and the road characteristics.

➲ To select an HHG Full Route with State Mileage Breakdown Inquiry:

- On the Routes menu select **HHG Full Route w/ SMB**

HHG Route—State Mileage Breakdown Only Inquiry

The HHG Route—State Mileage Breakdown Only Inquiry provides the shortest distance between points, but displays only a state-by-state listing of the distance traveled in each state. Miles are categorized as toll and non-toll.

➲ To select an HHG Route—State Mileage Breakdown Only Inquiry:

- On the Routes menu select **HHG Route SMB Only**

The output from a HHG Route—State Mileage Breakdown Only Inquiry will look like the output shown in Figure 2-6, but will show only the State Mileage Breakdown information displayed in the lower list box.

ENTERING AN INQUIRY

Chapter 3

Chapter Contents

Introduction

Whichever type of MileMaker inquiry you select, the basic procedure for entering the inquiry into MileMaker is the same. To run the inquiry, you must follow these basic steps:

1. Open one of the inquiry dialog boxes by clicking one of the buttons on the toolbar or selecting an inquiry from the Mileages or Routes menu.
2. Enter a route list specifying the locations along your route, following the instructions in this chapter.
3. Add any of the customization options available for the selected inquiry, also described in this chapter.
4. Press the **Calculate** button in the dialog box to process your inquiry.

Note: It is possible to enter locations for an inquiry directly on the map. For more information, see chapter 5, "Working with the Map."

Entering a Route List into MileMaker

When you open one of the inquiry dialog boxes in MileMaker, it will have a section like the one shown in Figure 3-1. You will use this section to enter the locations along your route.

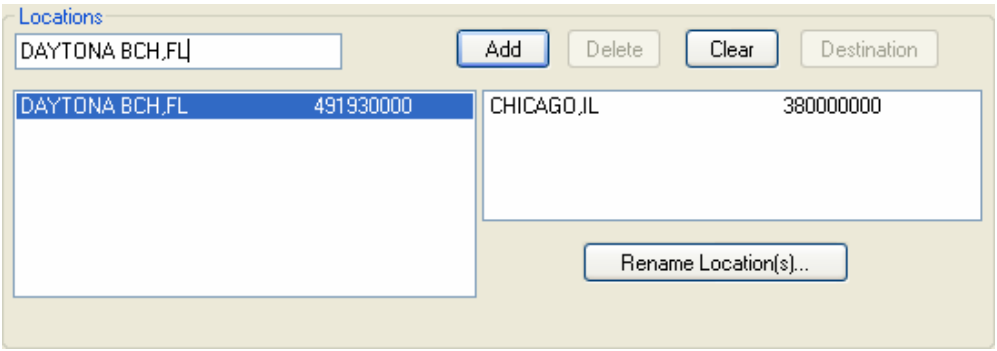


Figure 3-1: Location entry fields

Note: "Location" is a general term that describes an origin, stop-off, or destination.

➲ To enter locations along a route:

1. In the **Locations** field, enter your origin. Enter a city name, followed by a state or province code, with no space between the comma after the city name and the code that follows. Spaces are only used to separate city names that contain more than one word, as illustrated in Figure 3-1.
2. You can also enter a truckstop, a junction, an SPLC, or a ZIP Code as a location. For details on how to enter each type of location, see Specifying Locations in the Route List on page 21.

Note: When you finish entering a city and state or province code, that city should automatically appear in the list box below the **Locations** field. If it does not, check to make certain that you have spelled the name and the code correctly and that there is no space between the state code and the comma that precedes it.

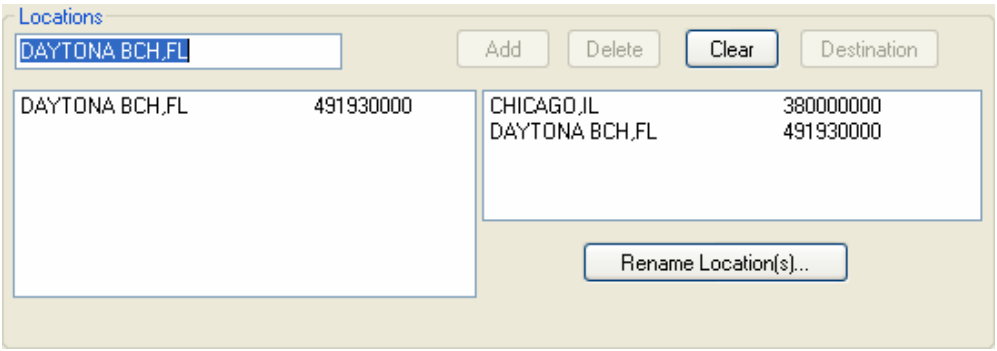
If there are two cities with the same name in the same state, they will appear in the list box with a county code. Make sure that the correct city is highlighted before adding it to your route list.

3. When the location you want appears, highlighted, in the list box below the **Locations** field, click the **Add** button. The location will appear in the list box on the right.

Note: After typing in a location, pressing the **Enter** key will also add the location to your route list.

4. After you add the location to your route list, the name in the **Locations** field is highlighted, as shown in Figure 3-2. Simply type your next location over this one; the new entry will automatically replace the highlighted one.

Figure 3-2



5. Continue to enter locations until all of the locations along your route appear in the route list. MileMaker will assume that the first location in the route list is your origin, the last location is your destination, and those in between are stopovers, unless you have selected the HHG Origin to Multiple Destination Inquiry (see page 11) or have checked one of the route optimization options (see page 23).

Note: If you type a complete location name (for example, a name, a comma and a state code or a five-digit ZIP Code) and MileMaker cannot match a specific location to it, a browse list appears in the Locations list box. You can search this list for the correct location, select it, and then **Add** the location to your route list. If you do not find the location in the list, check to make sure you have typed in the location name correctly.

6. Once you have entered your list of locations, you can:

   - Insert a location anywhere in your route list (see page 23).
   - Delete a location from your route list (see page 23).
   - Optimize your route list (see page 23).
   - Save the route list with a unique name so you can re-enter the list quickly at any time (see page 25).
   - If you are entering a Practical Route Inquiry, you can customize your inquiry in a variety of ways (see page 31).

7. When your route list and any customization options are completely specified, press the **Calculate** button that appears in the inquiry dialog box to process the inquiry.

Note: When you press the **Calculate** button, a transaction is deducted for each point-to-point calculation in your inquiry. For example, the sample route from Chicago to Daytona Beach to Garland would count as two transactions. Be sure to press the **Calculate** button only when your inquiry is completely specified. For more information about monitoring and adding transactions, see chapter 6.

8. After processing your inquiry you can press the **Clear** button to clear the route list and enter a new list of locations, or you can click the **Close** button (the small "x" in the upper right hand corner of the dialog box) to exit the dialog box.

Specifying Locations in the Route List

You can enter locations into MileMaker using any of the following methods, in any combination.

- Enter a city name and a state or province code, with no space after the comma.
  Example: **New Orleans,LA**

- Enter a truck-stop name and state code, with no space after the comma.
  Example: **Brooke Sunoco Plz,IA**

- Enter a junction, with highway names separated by a slash and no space after the comma. Use the abbreviations shown below. This method is valid for Practical Routes only.
  Example: **I55/I94,IL**

I (Interstate Highway)	U (U.S. highway)
S (State highway)	P (Provincial or TransCanada highway)
F (Mexican Federal highway)	C (County highway)
O (Other roadway such as local road)	

- Enter locations by SPLC (Standard Point Location Code).
  Example: **380000**

  This method is necessary to process military locations in the manner acceptable to the Department of Defense.

- Enter a 5-digit U.S. ZIP Code. This method is valid for HHG inquiries only.
  Example: **60620**

  - Large metropolitan areas may have multiple ZIP Codes. For example, 60601 and 60610 will access the same point in Chicago for mileage calculation.

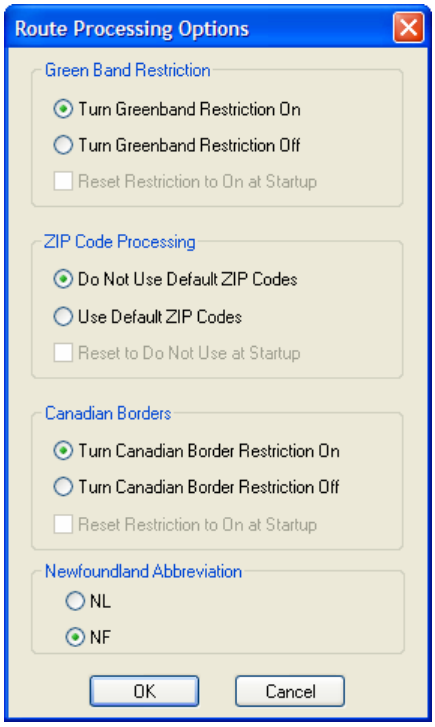
- A single ZIP Code may include multiple locations. In such case, a browse list will appear with location choices. Alternatively, you can request that MileMaker use a default location, as described below.

Note: When multiple locations are tied to a ZIP Code, ZIP Codes displayed in the browse list may be prefaced by "*". An "*" indicates that the ZIP Code is used as a default for both HHG and Practical mileage requests.

➲ To use default locations for multiple-location ZIP Codes:

1. On the Features menu, select **Route Processing Options**
2. In the ZIP Code Processing section of the Router Processing Options dialog box, select **Use Default ZIP Codes**.
3. Click **OK**.

Figure 3-3



MileMaker will continue to use default ZIP Codes for multiple-location ZIP Codes in the current and future sessions unless you change this option again. You can do so by:

- Returning to the Router Processing Options dialog box and selecting the **Do Not Use Default ZIP Codes** option.

  or

- Selecting the **Reset to Do Not Use at Startup** option. When you select this option, MileMaker will use default ZIP Codes for the remainder of the current session, but will return to the default method of displaying the Browse list the next time you start MileMaker.

Modifying the Route List

Once you have entered a list of locations you can modify the list by:

- Inserting locations into the list.
- Deleting locations from the list.
- Optimizing the locations in the list.
- Saving the list under a user-specified name.

Inserting Locations into the Route List

➲ To insert a location into the route list:

1. Add the location to the route list, as described in the previous section.
2. Click once on the location you have added to select it, then click a second time and continue to hold the mouse button down.
3. While holding the mouse button down, drag the location to the correct place in the route list.

Deleting Locations from the Route List

➲ To delete a location from the route list:

- Click on the location to select it, then click the **Delete** button or double click on the location. A dialog box will open asking if you want to delete the selected item.

Optimizing the Route List

You can have MileMaker optimize your route list by selecting one of the Optimize options in the inquiry dialog box.

Figure 3-4: Optimize Options

When you have selected a Practical Route, optimizing the route list will reorder your locations so that the route will be the most logical from a geographic perspective. When you have selected an HHG Audit Route or HHG Full Route,

optimizing will reorder your locations to determine the route with the overall shortest distance.

➲ To optimize a route list with no predetermined destination:

1. After entering your list of locations, click on the **Optimize** check box so that a check mark appears. Note that this option becomes available only after you have entered three or more locations into your route list.
2. Click on **Calculate**. The following message may appear: "You have chosen Optimized Routing as your preference. Stopovers may be reordered if you proceed with routing. Do you want to continue?" Click on **OK** if you want to continue. Click on **Cancel** if you do not want MileMaker to reorder your stopovers.
3. After the calculation is finished, the following message may appear: "Optimized Routing caused your locations to be reordered." Click on OK to continue.

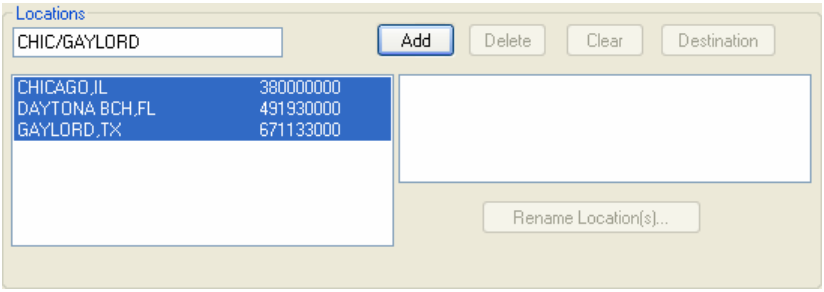
➲ To optimize a route list with a specified destination:

1. If you want MileMaker to use a specific location as the destination when optimizing the route list, click on the **Optimize with specific destination** check box. This option only becomes available after you have first checked the **Optimize** option.
2. In the route list, select the location that you want to designate as the destination.
3. Click on the **Destination** button. A “D” will appear next to the destination location.
4. Click on **Calculate**. The following message may appear: "You have chosen Optimized Routing as your preference. Stopovers may be reordered if you proceed with routing. Do you want to continue?" Click on **OK** if you want to continue. Click on **Cancel** if you do not want MileMaker to reorder your stopovers.
5. After the calculation has been completed, the following message may appear: "Optimized Routing caused your locations to be reordered." Click on OK to continue.

Saving the Route List Under a User-Specified Name

If you use a particular route list frequently, it is inconvenient to re-enter the list of locations each time you want to run an inquiry. You can use the Custom Name feature in MileMaker to save a route list under a name you specify. When you enter this name in the **Locations** field (see Figure 3-5), the entire list of locations saved under that name will appear in the list box below. Once you have saved a Renamed Location, you can edit or delete it at any time by choosing **Renamed Location(s)** on the Features menu.

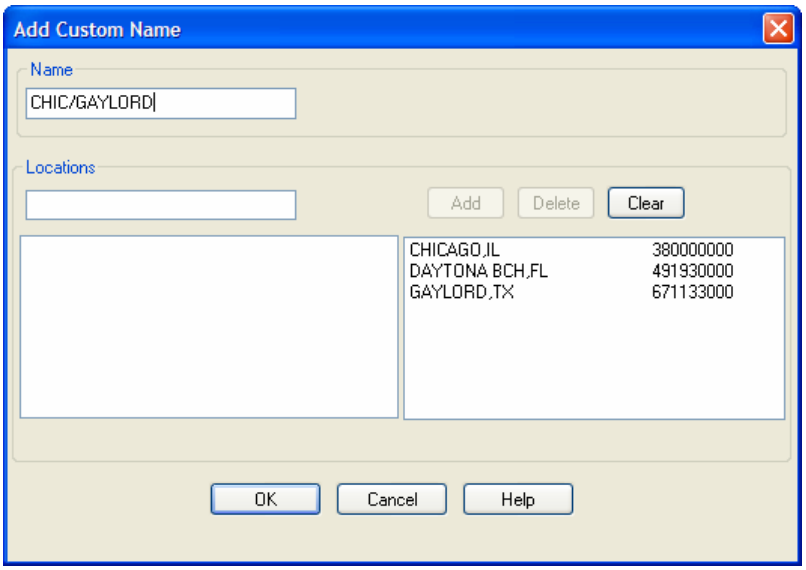
Figure 3-5: Using a Renamed Location to enter a route list



➲ To save a route list as a Renamed Location:

1. Enter the list of locations you want to save.
2. Click the **Rename Location(s)** button.
3. In the Add Custon Name dialog box, enter the name under which you want to save the route list, as shown in Figure 3-6. The name you provide must be at least four characters long.

Figure 3-6



Note: Do not use 5-, 6-, or 9-digit numbers for Renamed Location. Doing so interferes with entering locations by ZIP Code or SPLC. You may use a combination of letters and numbers in the name as long as the name begins with a letter, for example: PAT12.

4. If you wish, modify the list using standard location entry procedures.
5. Click on **OK**.

Note: You can go directly to the Custom Name Manager dialog box to enter and save a route list by selecting **Renamed Location(s)** on the Features menu.

Note: Network Users: All users on a network share a single list of Renamed Locations. Before changing or deleting a Renamed Location in the list on the network, it is important to consult with other users.

➲ To retrieve a route list using a Renamed Location:

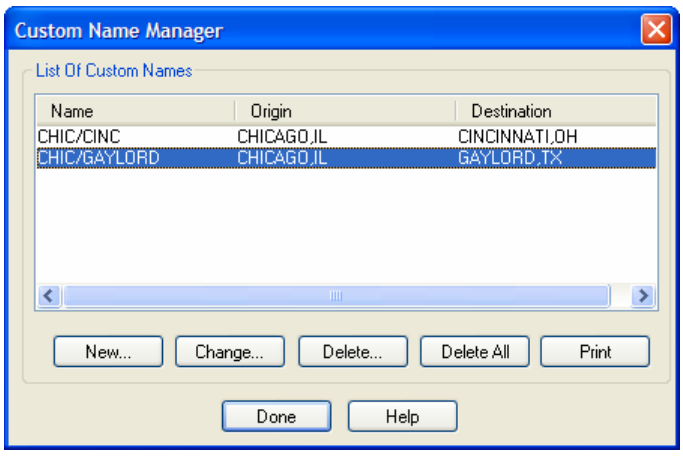
1. In the inquiry dialog box **Locations** field, enter a Renamed Location. The list of locations will appear in the list box below.
2. Click the **Add** button to add the Renamed Location list to your route list.

Note: You can add additional locations to the route list at this point. This will not alter the Renamed Location list unless you press the **Rename Location(s)** button and create a new Renamed Location.

➲ To Insert, Edit, or Delete a Renamed Location:

1. On the Features menu, select **Renamed Location(s)**.
2. The Custom Name Manager dialog box will appear with a list of the Renamed Locations you have created, as shown below.

Figure 3-7



3. In this dialog box you can use the following buttons:

New

Opens the Rename Location(s) dialog box, where you can create a new Renamed Location.

Change

Opens the Change Location Name(s) dialog box, which displays the route list for the selected Renamed Location. You can edit and save the list.

Delete

Deletes the selected Renamed Location.

Print

Prints the selected Renamed Location to the default printer.

Done

Saves any changes and exits the Custom Name Manager dialog box.

Help

Provides instructions for this dialog box.

Changing the Inquiry Type

You may wish to perform several different inquiries for a single route list. If so, you do not need to re-enter the route list each time, you can change the inquiry type from within an inquiry dialog box, retaining the route list you already entered.

Note: Each time you calculate a new inquiry for a route list, a new set of transactions is deducted from your total.

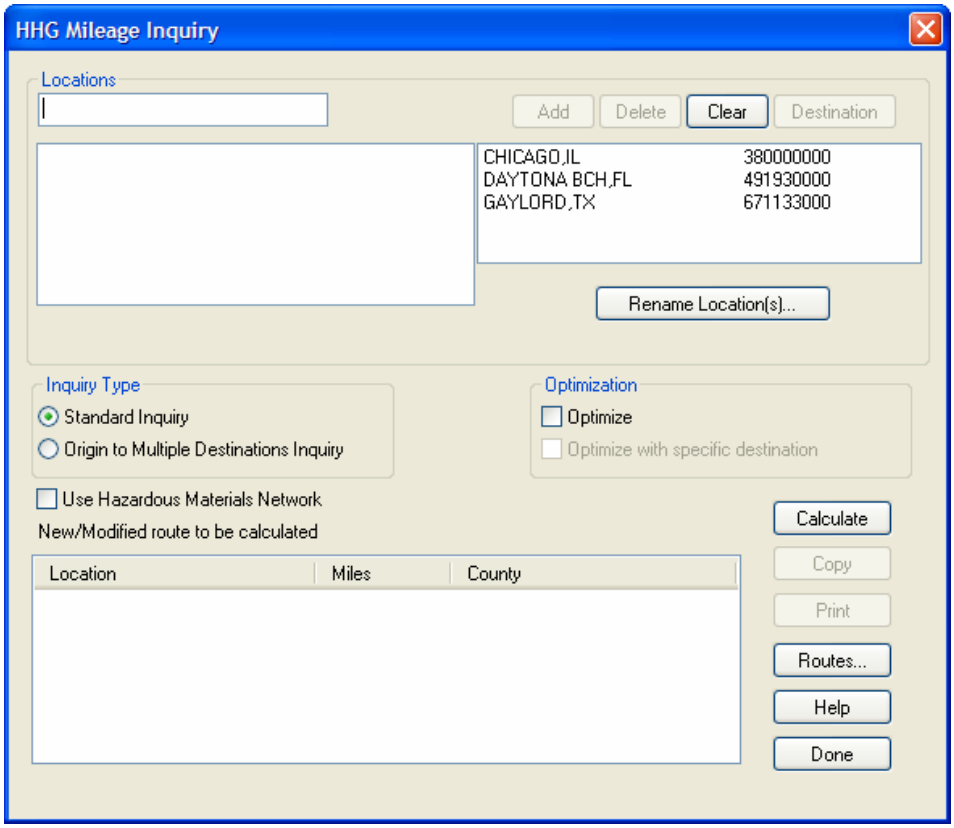
Changing Inquiries from the Mileage Inquiry Dialog Box

You can switch to a different inquiry from the HHG Mileage Inquiry and the HHG Origin to Multiple Destination Inquiry in the following ways:

- To switch between the HHG Mileage Inquiry and the HHG Origin to Multiple Destination Inquiry click on a selection in the **Inquiry Type** section of the dialog box (see Figure 3-8 below).
- To submit a Practical Route inquiry for the same route list, click the **Routes** button.

- You will also have the opportunity to create a Practical Route for the route list when you exit one of the HHG Mileage Inquiry dialog boxes. When you click the **Done** button or the **Close** button in the upper right hand corner of the dialog box, the Practical Route dialog box automatically appears. If you do not wish to create a Practical Route for the route list, you can just **Cancel** this dialog box.

Figure 3-8



The Practical Mileage dialog box looks the same as the HHG Mileage dialog boxes, except that the Inquiry Type section of the dialog box is unavailable.

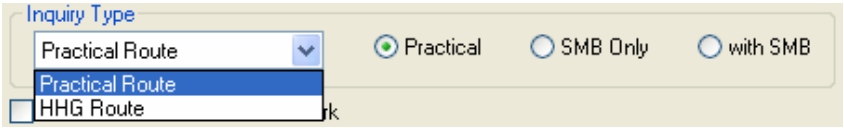
- From the Practical Mileage dialog box you can click the **Routes** button to create a Practical Route with the current route list.
- The Practical Route dialog box will not appear when you exit the Practical Mileage Inquiry dialog box.

Changing Inquiries from the Route Dialog Boxes

You can switch between the Practical Route Inquiry, the Practical Route with State Mileage Breakdown Inquiry and the Practical Route—State Mileage Breakdown Only Inquiry using the selections in the Inquiry Type section of the Practical Route Inquiry dialog box (see Figure 3-9).

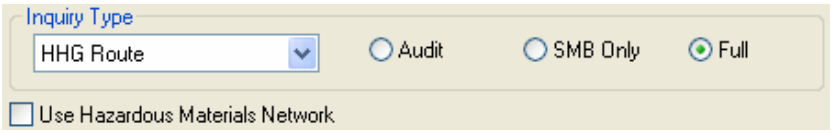
You can also change to an HHG Route Inquiry by selecting **HHG Route** in the Inquiry Type drop-down list.

Figure 3-9: Inquiry Type section from the Practical Route Inquiry dialog box



Similarly, in the HHG Route Inquiry dialog box you can switch between the HHG Audit Route inquiry, the HHG Full Route with State Mileage Breakdown inquiry and the HHG Route - State Mileage Breakdown Only inquiry (see Figure 3-10). Or, you can switch to a Practical Route inquiry by selecting **Practical Route** in the drop-down list.

Figure 3-10: Inquiry Type section from the HHG Route Inquiry dialog box



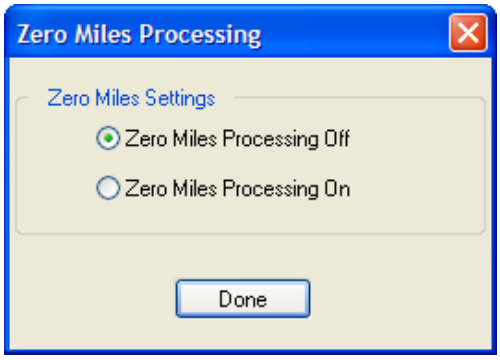
Customizing an HHG Mileage Inquiry

For an HHG Standard Mileage Inquiry or an HHG Origin to Multiple Destinations Inquiry, you can use the Zero Miles Processing option to specify whether MileMaker will return a zero mileage or an error message when the same location is entered as both the origin and destination. The setting on this option will apply to these types of inquiries whether they are executed interactively or in batch mode.

➲ To specify the Zero Miles Processing option:

1. On the Features menu, select **Zero Miles Processing**.

Figure 3-11



2. In the Zero Miles Processing dialog box, select the **Zero Miles Processing On** option if you want MileMaker to return a zero mileage when the same location is entered as both the origin and destination. Select **Zero Miles Processing Off** if you want MileMaker to return an error message indicating that the request could not be processed.
3. Click on **Done** to save any changes and exit the dialog box.

The MileMaker default for Zero Miles Processing is **Zero Miles Processing Off**. The current status of the Zero Miles Processing option is displayed at the bottom of the screen as “ON” or “OFF”.

Customizing a Practical Route Inquiry

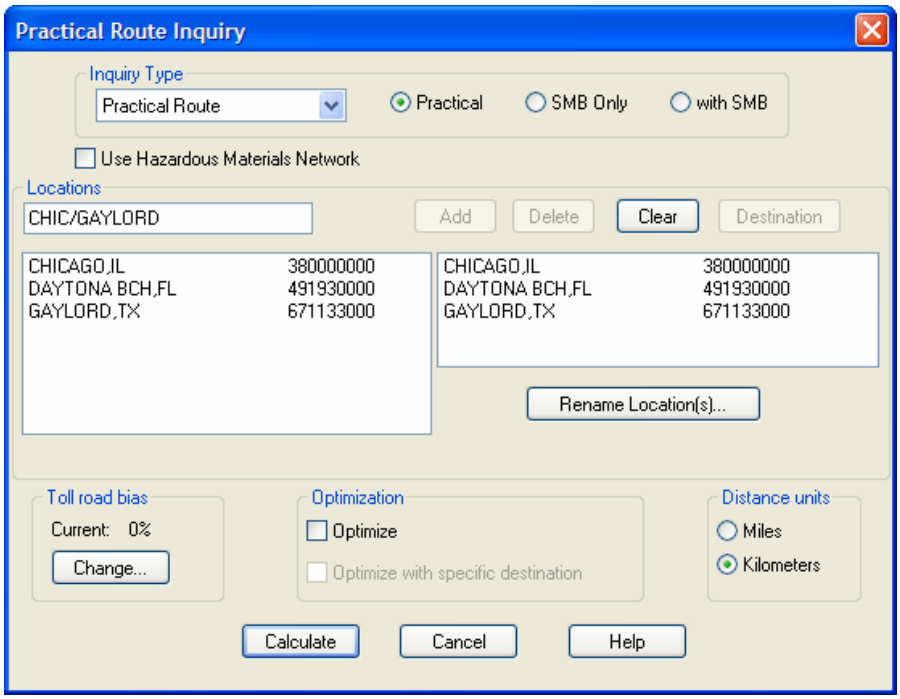
You can customize a Practical Route Inquiry in the following ways:

- Calculate the route in kilometers instead of miles.
- Alter the amount of toll road usage in the route.
- Turn Green Band restrictions on and off.
- Turn Canadian border restrictions on and off.

Calculating a Practical Route in Kilometers

To calculate a Practical Route in kilometers, select **Kilometers in the Distance Units section** as shown in Figure 3-12, below.

Figure 3-12: Kilometers selected for Practical Route



Altering Toll Road Usage in Practical Route Inquiries

You can change the amount of toll road usage in your Practical Route Inquiry by changing the percentage in the Toll road bias section of the inquiry dialog box (see Figure 3-12). An increase in the percentage of toll road bias indicates that toll roads

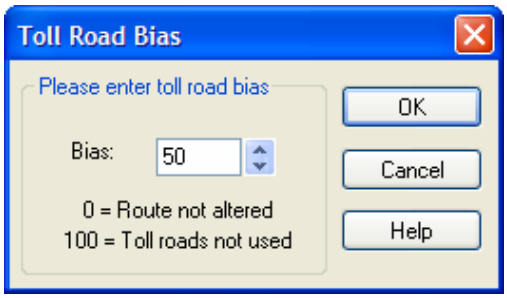
should be avoided as often as possible in a specific route. A decrease in the percentage indicates that toll roads should not be avoided in a specific route.

Note: Your route may be affected when you change the toll bias setting. For example, there may be an increase in the mileage and/or travel time.

➲ To change the toll road bias in a Practical Route Inquiry:

1. In the Toll road bias section of the Practical Route Inquiry dialog box, click the **Change** button.
2. In the Toll Road Bias dialog box, enter a new bias number or use the scroll arrows to increase or decrease the bias. A 0 indicates no toll road avoidance and 100 indicates full toll road avoidance.

Figure 3-13



3. Click **OK** to accept the changed settings. This action will return you to the Practical Route Inquiry dialog box. The new setting will be used the next time you calculate your route.

Note: Note for Network Users: Toll Road Bias can be altered for individual users at each workstation.

Turning Green Band Restrictions On and Off

The MileMaker Road Database includes Green Band Roads. Green Band Roads are those highways, which, for a variety of reasons, are not suitable for through truck travel. (Green Banded Roads are overprinted with a green band on the map pages in the Household Goods Mileage Guide (HHG), hence the name.) These roads may be restricted, i.e., green banded, because of physical restrictions, local ordinances, weather conditions, grade and other safety concerns, or other reasons. These roads are designated by each state.

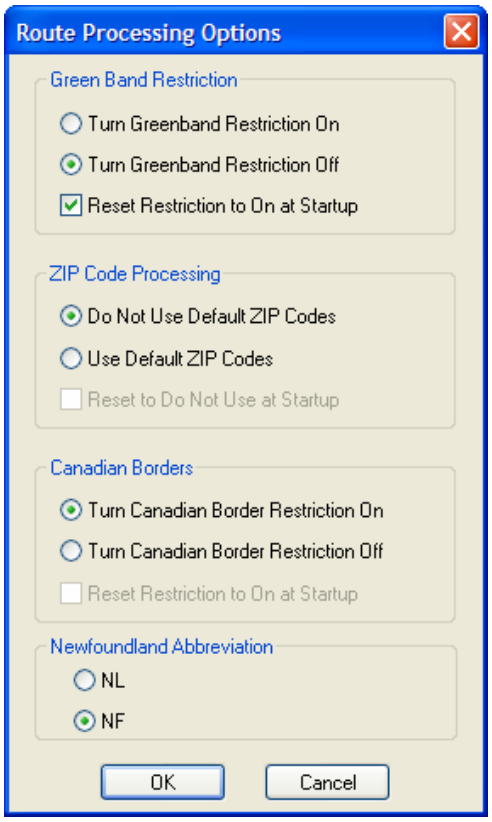
In MileMaker, the Green Band restriction is on by default; MileMaker will exclude roads that are restricted whenever a Practical Route is calculated. If you want a Practical Route for vehicles that are allowed to drive on Green Band-restricted roads, you can turn Green Band Restrictions off.

Note: Warning: Turning Green Band Restrictions off may produce Practical Routes that do not conform to the Rand McNally standard for truck usable highways, and, as such, may deviate from highway segments which Rand McNally has defined as generally suitable for truck travel.

➲ To turn Green Band restrictions off:

1. On the Features menu, select **Route Processing Options**.
2. In the **Green Band Restriction** section of the Router Processing Options dialog box, select **Turn Greenband Restriction Off** (see Figure 3-14).
3. Click **OK**.

Figure 3-14: Green Band Restrictions turned off



MileMaker will continue to have the Green Band Restriction turned off in the current and future sessions unless you change this option again. You can do so by:

- Returning to the Router Processing Options dialog box and selecting the **Turn Greenband Restriction On** option.

  or

- Selecting the **Reset Greenband to On at Startup** option. When you select this option, MileMaker will have Green Band Restrictions turned off for the remainder of the current session*, but will return to the default restrictions the next time you start MileMaker.*

Note: HHG Route inquiries and HHG Mileage inquiries are not affected by changing Green Band Restrictions, since HHG calculations are always done with Green Band Restrictions on.

Turning Canadian Border Restrictions Off

The Canadian Borders option enables you to cross the U.S./Canadian border in Practical Route calculations. By default, if an origin and destination are located in the same country, the Practical Route will be created only in that country, even if traversing a country border would make the route quicker and shorter.

You can turn the Canadian Border Restriction off, thus allowing a Practical Route to cross over the Canadian border.

➲ To turn the Canadian Border Restriction off:

1. On the Features menu, select **Route Processing Options**.
2. In the **Canadian Borders** section of the Router Processing Options dialog box, select **Turn Canadian Border Restriction Off** (see Figure 3-15).
3. Click **OK**.

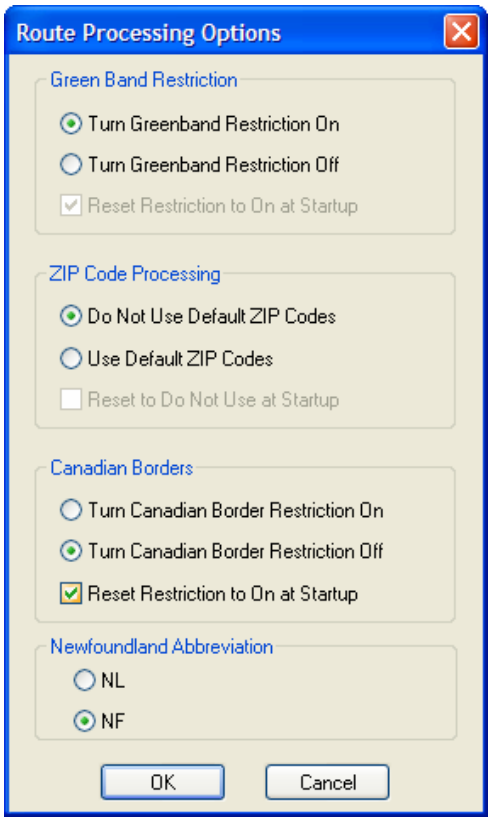


Figure 3-15: Canadian border restriction turned off

MileMaker will continue to cross country borders in Practical Route calculations in the current and future sessions unless you change this option again. You can do so by:

- Returning to the Router Processing Options dialog box and selecting the **Turn Canadian Border Restriction On** option.

or

- Selecting the **Reset Restriction to On at Startup** option. When you select this option, MileMaker will cross country borders in its calculations for the remainder of the current session, *but will return to the default restriction the next time you start MileMaker.*

Setting the Newfoundland Abbreviation

You can choose whether MileMaker® SP32 should use the abbreviation **NL** or **NF** to represent the Canadian province of Newfoundland and Labrador.

➲ To specify the abbreviation used for the Canadian Province of Newfoundland and Labrador:

In the **Newfoundland Abbreviation** area, click one of the following

- **NL** to use the abbreviation **NL** for Canadian province Newfoundland and Labrador.
- **NF** to use the abbreviation **NF** for Canadian province Newfoundland and Labrador.

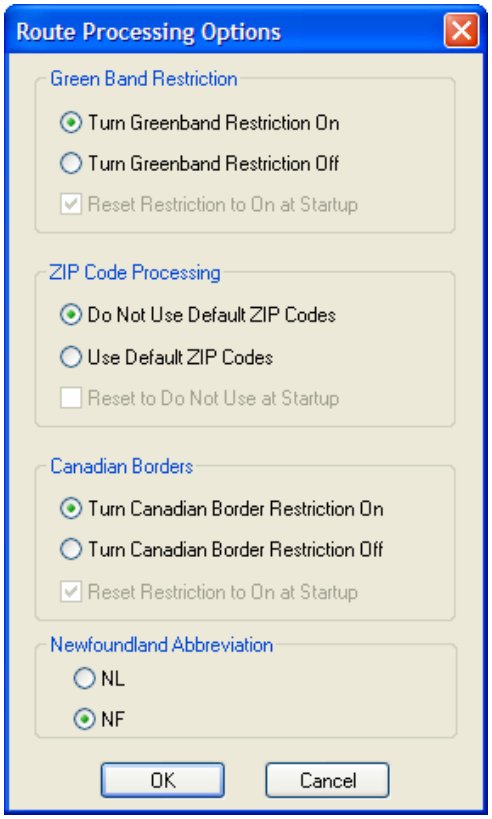


Figure 3-16: Newfoundland Abbreviation set to NF

PRINTING AND COPYING OUTPUT

Chapter 4

Chapter Contents

Introduction

Once you have generated mileage or route information in MileMaker, you can print the output directly to the printer or a file, or you can copy the information to the Windows clipboard to paste into another Windows application.

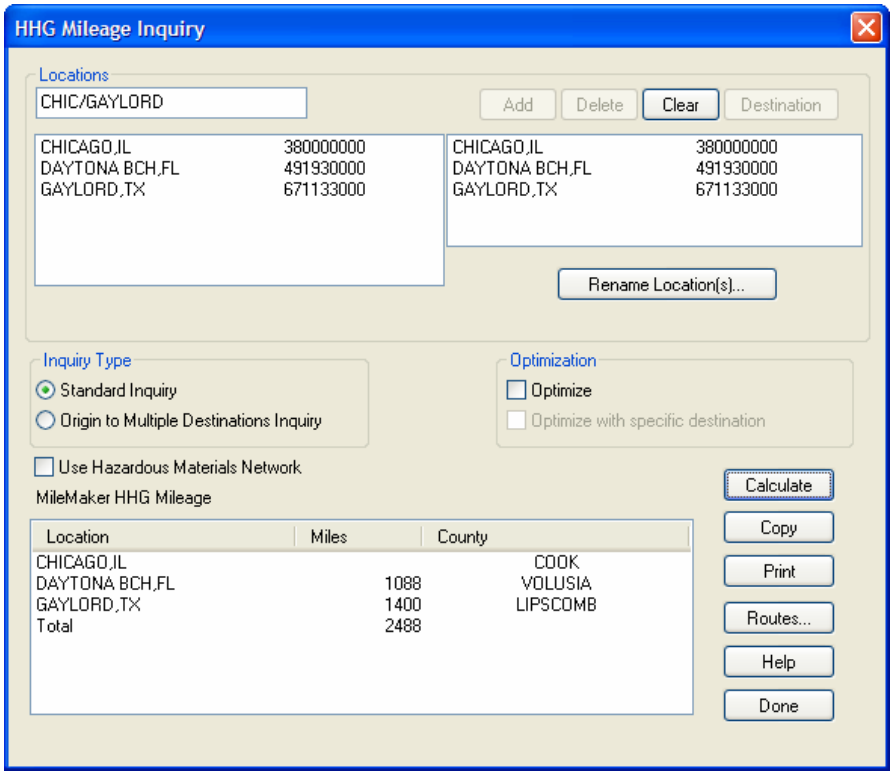
Different methods are used to print and copy output from mileage inquiries and output from route inquiries.

Printing and Copying Mileage Information

You can print and copy output directly from the mileage inquiry dialog box (see Figure 4-1):

- Click the **Print** button to send the output directly to your printer.
- Click the **Copy** button to copy the output to the Windows clipboard. You can then paste the information into another Windows application.

Figure 4-1



Printing and Copying Route Information

➲ To print the output from route inquiries:

1. Press **Print** on the toolbar or select **Print** from the File menu.
2. In the Print dialog box (Figure 4-2), select the items you want to print. In the **Print** drop-down box you can select:

- **Current map** to print just the map that displays your route or **Route pack** to print a packet of information including a summary page, an overview map page, and a set of pages showing segments of the itinerary with corresponding maps.

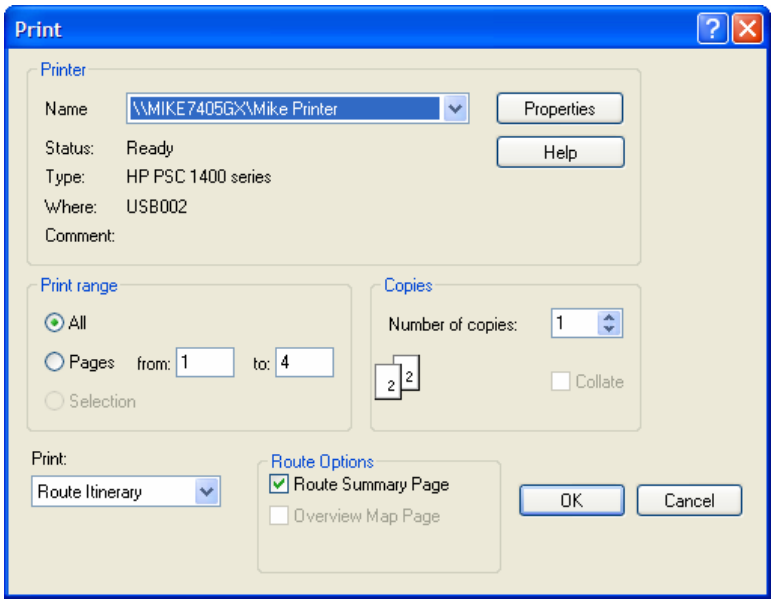


Figure 4-2: Enter figure text here

3. Specify the information in the **Print Range** section of the dialog box.
4. Select the **Print to File** option if you want the output to go in a file rather than to the printer.
5. Select the **Collate Copies** option if you are printing multiple copies of the output and want the pages to print in collated packs. If you do not check this option, MileMaker will print the specified number of each page before going on to print the next page.
6. Click **OK** to print the output.

➲ To copy information from route inquiries:

- From the Edit menu, select **Copy Map** or **Copy Itinerary**, or select **Copy All** to copy both the map and itinerary to the clipboard.

WORKING WITH THE MAP

Chapter 5

Chapter Contents

Introduction

With map graphics, you can:

- Customize your view of the map and itinerary.
- Zoom in to view specific areas on the map.
- Find and label locations on the map.
- Create a route inquiry directly on the map.
- Avoid or prefer specific road segments in a route inquiry.
- Print a copy of the map for reference.

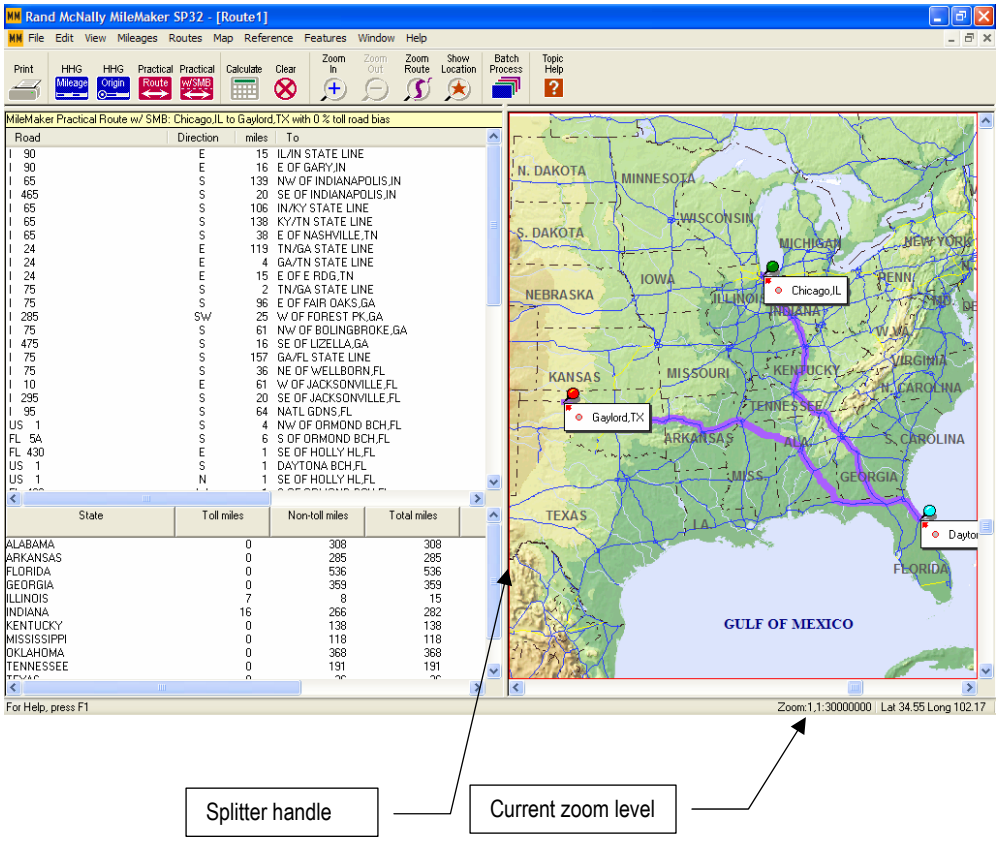
Viewing and Customizing the Map

In this section you will learn how to view more of the map when the itinerary is open, how to obtain more information about the map, and how to customize the map's appearance.

Moving the Itinerary Window

After you process a route inquiry in MileMaker, you will see an itinerary on one side of the screen and the map on the other side. (See Figure 5-1).

Figure 5-1: Results of a route inquiry



There are two ways to change the view of the map and itinerary: (1) you can drag the bar (also called the *splitter handle*) on the right side of the itinerary to the left or right, or (2) you can use the **View** option on the Map menu.

- To drag the splitter handle, position your cursor over the bar that separates the itinerary and the map. The cursor will change appearance when it is correctly positioned. Then, while holding the mouse button down, drag the splitter handle to the left or the right until you have the view you want.

- To change the view using the **View** option on the Map menu, use the following selections:

Map Only

Moves the splitter handle to the far left of your screen to hide the itinerary and display only the map in the active window.

Itinerary Only

Moves the splitter handle to the far right of your screen to hide the map and display only the itinerary in the active window.

Map/Itinerary Split

Restores the default display of the map on the right, the itinerary on the left, and the splitter handle down the middle.

Viewing the Map Scale and Map Legend

On the Map menu, select **Scale** to turn the scale bar on and off. The scale bar shows you distances in miles relative to the zoom level of the current map view.

On the Map menu, select **Legend** to turn the legend on and off. The legend tells you what the symbols on the map mean.

Customizing the Map's Appearance

On the Map menu, select **Map elements** to call up the Display Map Elements dialog box. This dialog box lists the items that are shown on MileMaker maps. By default, all items are turned on. You can deselect any item that you do not want to appear on the map.

Moving around the Map

There are several ways to zoom in and out on the map to see more or less map detail. There are also several methods for scrolling to different areas of the map.

Zooming In and Out on the Map

You can zoom in and out on the map by:

- Using the rubber band zoom.
- Using one of the zoom selections on the Map menu or one of the zoom buttons on the toolbar.
- Using the zoom selection on a label's drop-down menu.

There are ten zoom levels in MileMaker. The current zoom level is displayed in the status bar at the lower right of the screen (see Figure 5-1).

Using the Rubber Band Zoom

To perform a rubber band zoom, click on the map and, holding the mouse button down, draw a rectangle around the area you wish to zoom in on. When you release the mouse button, the map will zoom in on the area you have defined.

Using Menu Selections or Toolbar Buttons to Zoom

To zoom in and out using selections on the Map menu, choose one of the following:

Zoom In

Zooms in to the next scale level and increases the level of detail in the visible area of the map. The **Zoom In** button on the toolbar is a shortcut to this command.

Zoom Out

Zooms out to the next scale level and decreases the level of detail in the visible area of the map. The **Zoom Out** button on the toolbar is a shortcut to this command.

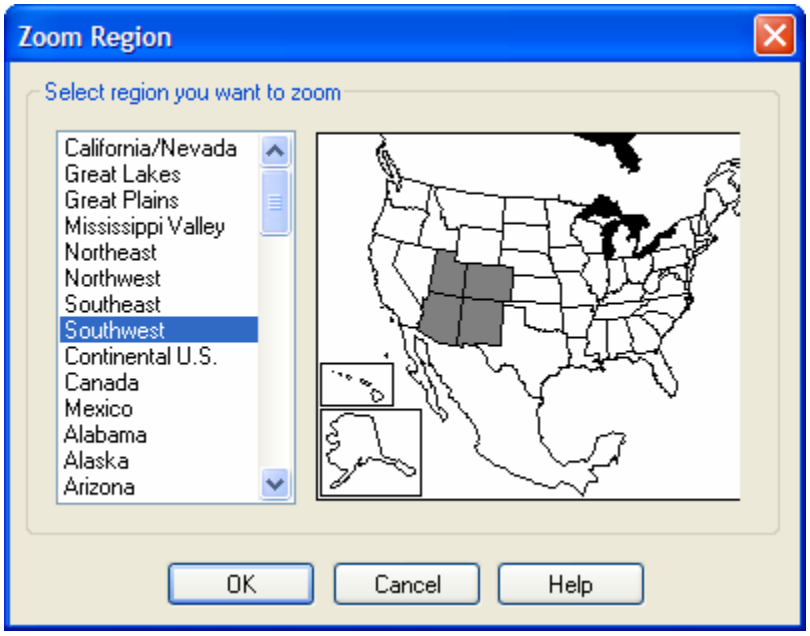
Zoom Route

Zooms in or out to display a complete view of the current route in the active window. The **Zoom Route** button on the toolbar is a shortcut to this command.

Zoom Region

Brings up the Zoom Region dialog box (see Figure 5-2). On the left, the list box contains regions and states in alphabetical order. Scroll through the list box and click on a preferred state or region. As you select a state or region, it becomes highlighted on the map in the dialog box. When you click on **OK**, the map in the active window zooms to the selected region.

Figure 5-2



Using the Map Label Drop-Down Menu to Zoom

To zoom in on a specific location, you can click on that location on the map to display the map label (see figure 5-3). Then use your *right* mouse button to click on the label to display the drop-down menu. Select **Zoom To** to zoom in on the location.

Scrolling the Map

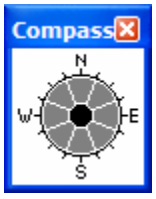
There are several ways to scroll the map in different directions. You can:

- Use the scroll bars.
- Use the compass.
- Use the locator map.

Scrolling with the Scroll Bars

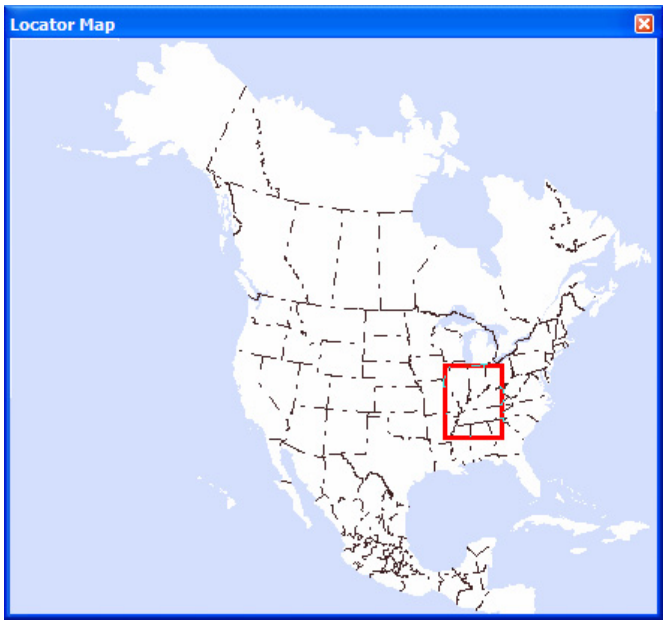
The scroll bars in MileMaker are standard Windows scroll bars. You can move the map by clicking on the arrows or by dragging the scroll box.

Scrolling with the Compass



You can turn the Compass on and off by selecting **Compass Rose** on the Map menu. When the Compass is turned on, you can click on any of the shaded areas within the Compass to scroll the map in that direction. The Compass is particularly effective to move the map diagonally.

Scrolling with the Locator Map



You can turn the Locator Map on and off by selecting **Locator Map** on the Map menu. The rectangle on the locator map shows you the extent of your current map view. You can move about on the main map by dragging the rectangle in the locator map.

Note: You can reposition the Locator Map window by clicking on its title bar and dragging, or resize the window by dragging its borders.

Finding and Labeling Locations on the Map

To find and label locations, you can:

- Find and label locations with the Show Location dialog box.
- Label locations directly on the map.

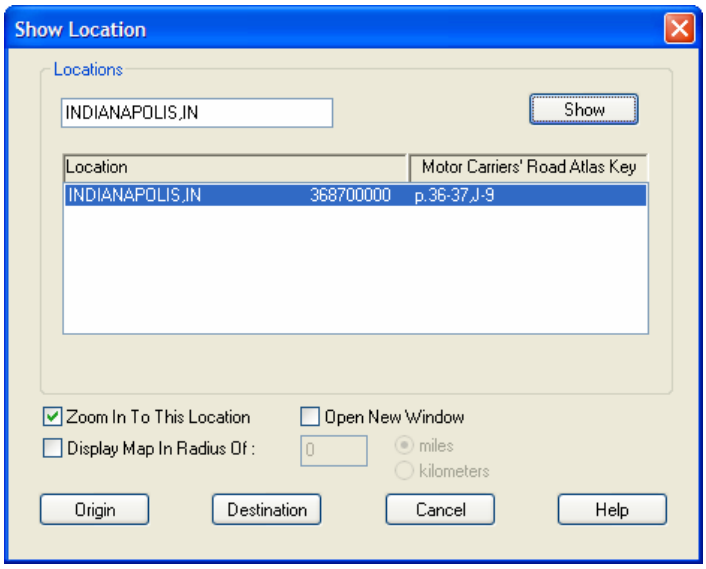
Finding Locations with the Show Location Dialog Box.

➲ To find a location:

1. Click **Show Location** on the toolbar, or on the Map menu, select **Show Location.**
2. In the Show Location dialog box (Figure 5-3), enter a location in the text box; the location name will appear, highlighted, in the list box below.

3. Click on the **Show** button. The map will center on the location, which will appear with a label.

Figure 5-3



You can make additional selections in the Show Location dialog box, as follows:

Origin/Destination buttons

If you have calculated a route, you can click on the **Origin** button or **Destination** button to find and label those locations on the map.

Zoom in to this location

The **Zoom in to this location** option causes the map to center and zoom on the selected location; it is checked by default.

Open new window

The **Open new window** option causes MileMaker to display the selected location in a new window. Use the selections on the Windows menu to view multiple windows.

Display Map in Radius of

Select this option to display a mileage/kilometer radius boundary around the selected location (base location). To use this option, select the **Display Map in Radius of** check box and specify the distance of the radius (number of miles or kilometers) from your base location. Click on the **Show** button to display the radius boundary.

Other Ways to Open and Close Map Labels

You can click on any location on the map to open its label. If there are multiple locations in the area you have clicked on, the Select a location dialog box will open for you to select the location you wish to label. To close a label, double click on it with your left mouse button. (Click once with your right mouse button to open the label's drop-down menu.)

When you calculate a route, the labels for the origin, destination and any stop-offs appear on the map automatically. To turn these labels off, as well as any other labels that are open on the map, select **Label ∑ Hide All Labels** from the Map menu. If you want to turn all of the labels for your route on, select **Label ∑ Label route** from the Map menu.

Creating a Route Directly on the Map

You can mark the origin, destination and stop-offs for a Practical Route directly on the map and then click the **Calculate** button on the toolbar to process the route. There are two ways to mark locations on the map:

- Using the map label.
- Using route markers.

Using Map Labels to Mark Route Locations

➲ To create a Practical Route using map labels:

1. Label the origin of the route by using the Show Location dialog box or by clicking directly on the map.
2. Click on the label with your right mouse button to open the drop-down menu.
3. Select **Set Origin** on the drop-down menu to mark the route's origin.
4. Repeat steps 1-3 to mark the destination and any stop-offs, using the **Set Destination** selection to mark the route's destination and the **Add Location** selection to mark any stop-offs.
5. When all locations have been added to the route, click the **Calculate** button on the toolbar to process the route.

Note: Make sure that you have added all of your locations to the route before processing it; transactions are deducted each time you recalculate the route.

Using Route Markers to Create a Route

➲ To create a Practical Route using route markers:

1. On the Map menu, select **Route Markers** to open the Route Markers window.

2. To label the origin of the route, click on the marker labeled **Orig** and, holding the mouse button down, drag the marker to the route origin.

Note: It is easier to place the markers if you are zoomed in on the map.

3. Repeat steps 1-2 to mark the destination and any stop-offs, using the **Dest** marker to mark the route's destination and the **Loca** marker to mark any stop-offs.

4. When all locations have been added to the route, click the **Calculate** button on the toolbar to process the route.

Note: Make sure that you have added all of your locations to the route before processing it; transactions are deducted each time you recalculate the route.

5. If you want to create a new route on the map, you can click the **Clear** button on the toolbar to clear the current route from the screen and delete all route and mileage information.

Using Avoided and Preferred Segments

When creating a route, you may wish to avoid or include particular road segments in your route. You can use the Avoid/Prefer Segment feature to do so.

Note: Using the Avoid/Prefer Segment feature may produce Practical Routes that do not conform to the Rand McNally standard for truck usable highways, and, as such, may deviate from highway segments which Rand McNally has defined as generally suitable for truck travel.

Creating Avoided and Preferred Segments

➲ To avoid or prefer a road segment:

1. On the map, click on the road segment you want MileMaker to avoid or prefer.
2. A location label with the name of the road appears. Click on the label with the *right* mouse button.
3. On the label's drop-down menu, click on one of the following with the *left* mouse button:

   Avoid Segment

   The Avoid Highway Segments dialog box will appear. The highway name and coordinates of the avoided highway segment will be listed. Click on **OK**. The avoided segment will appear in red on the map.

   Prefer Segment

   The Prefer Highway Segments dialog box will appear. The highway name and coordinates of the preferred highway segment will be listed. Click on **OK**. The preferred segment will appear in green on the map.
4. Enter locations and process your route as usual. When you calculate the route, MileMaker will route around the avoided segment and/or include the preferred one.

Note: The avoided or preferred road segment will remain active for all subsequent routes generated until you remove the feature from that segment.

Resetting Avoided or Preferred Segments

There are two ways to reset avoided and preferred segments: from the Features menu or from map labels.

➲ To reset segments using the Features menu

1. On the Features menu, click on either **Avoided Segments** or **Preferred Segments**.
2. A dialog box appears with a list of the avoided or preferred segments. Highlight the segment you want to reset.
3. Click on **Reset selected segments**.
4. Click on **Done**.

➲ To reset segments using map labels

1. On the map, click on the segment you want to reset.

2. A location label with the name of the road appears. Click on the label with the *right* mouse button.

3. A list of menu options appears. With the *left* mouse button click on **Avoid Segment** or **Prefer Segment.**

4. In the Segment Selection dialog box, click on **Reset** to remove the avoid or prefer feature from the selected segment. You can also click on **Expand** to expand the avoided or preferred route.

Note: Note for Network Users: Whenever an individual user sets an avoided or preferred segment on the MileMaker map, *that segment becomes designated as avoided or preferred on all workstations throughout the network.*

Printing or Copying a Map

➲ To print a map:

1. Press **Print** on the toolbar or select **Print** from the File menu.

2. The Print dialog box will appear. In the **Print** field, select **Route pack** to print the entire data file, including maps, or select **Current map** to print only the map that is presently displayed on the screen.

For more information on printing MileMaker output, see chapter 4.

➲ To copy a map to another Windows application:

1. On the Edit menu, select **Copy Map**. The map that is presently on your screen will be copied to the Windows clipboard.

2. To bring the map into another Windows application, open that application, then go to the Edit menu and click on **Paste**.

3. For more information on copying MileMaker output, see chapter 4.

MONITORING AND UPDATING TRANSACTIONS

Chapter 6

Chapter Contents

Introduction

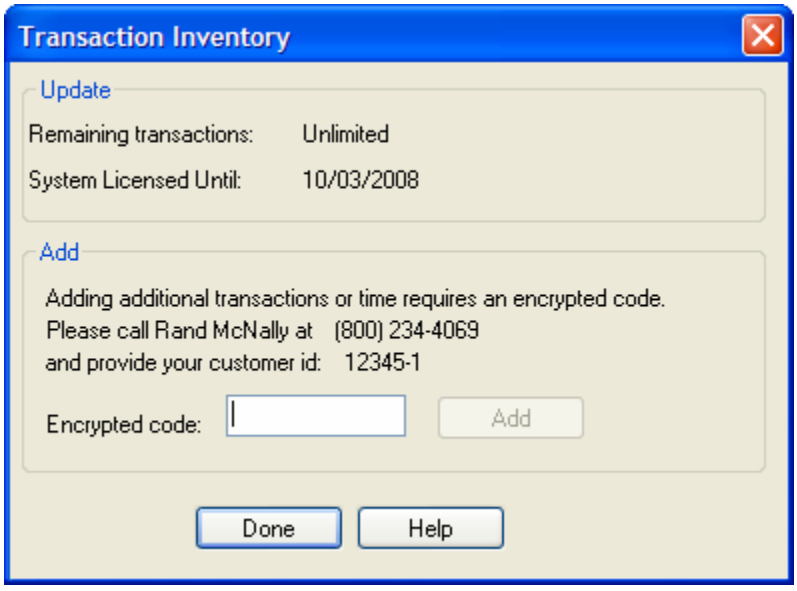
When you calculate a mileage or route inquiry, each point-to-point calculation is counted as a transaction. For example, a route from Chicago to St. Louis to Denver would count as two transactions. Transactions are deducted from your total each time you calculate an inquiry. MileMaker monitors your transaction level and makes adjustments to it when transactions are used or added.

Monitoring Transactions

➲ To check your available transactions:

1. From the File menu, select **Transactions**.
2. In the **Review** section of the Transaction Inventory dialog box, note the number of remaining transactions (see Figure 6-1).
3. Click **Done** or close the dialog box to return to the previous screen.

Figure 6-1



Adding Transactions

When you want to add transactions to MileMaker, you will need to contact Rand McNally & Company for the required code.

➲ To add additional transactions to MileMaker:

1. From the File menu, select **Transactions**.
2. In the Transaction Inventory dialog box (see Figure 6-1), enter the code you received from Rand McNally & Company, then click the **Add** button. The system will inform you that the additional transactions have been added to your transaction balance.
3. Click **Done** or close the dialog box to return to the previous screen.

Note: Note to Network Users: Only users with administrative rights will be able to add transactions. All other users will only be able to view the remaining number of transactions.

PROCESSING BATCH INQUIRIES

Chapter 7

Chapter Contents

Introduction

You can use MileMaker's Batch option to create a file containing several mileage and/or route inquiries. This file can then be processed at a later time. When you process the *batch input file*, all of its routes are calculated and the results output to an ASCII file, the *batch output file*. The batch output file can be read into other programs such as spreadsheets, word processors or databases for additional processing or printing.

You can have as many batch input files as you wish, and can edit and execute them as often as necessary. This saves you from having to re-enter information for frequently processed routes.

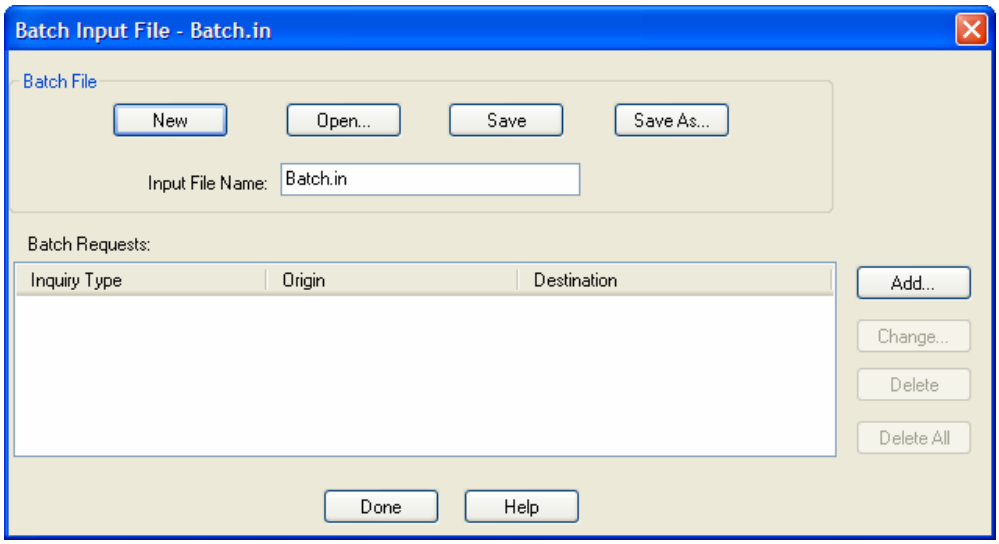
You use the **Batch** option on the File menu to create a batch input file. You can process the batch file from the File menu, or you can issue a command from DOS to run the batch program.

Creating a Batch Input File

➲ To set up a batch file:

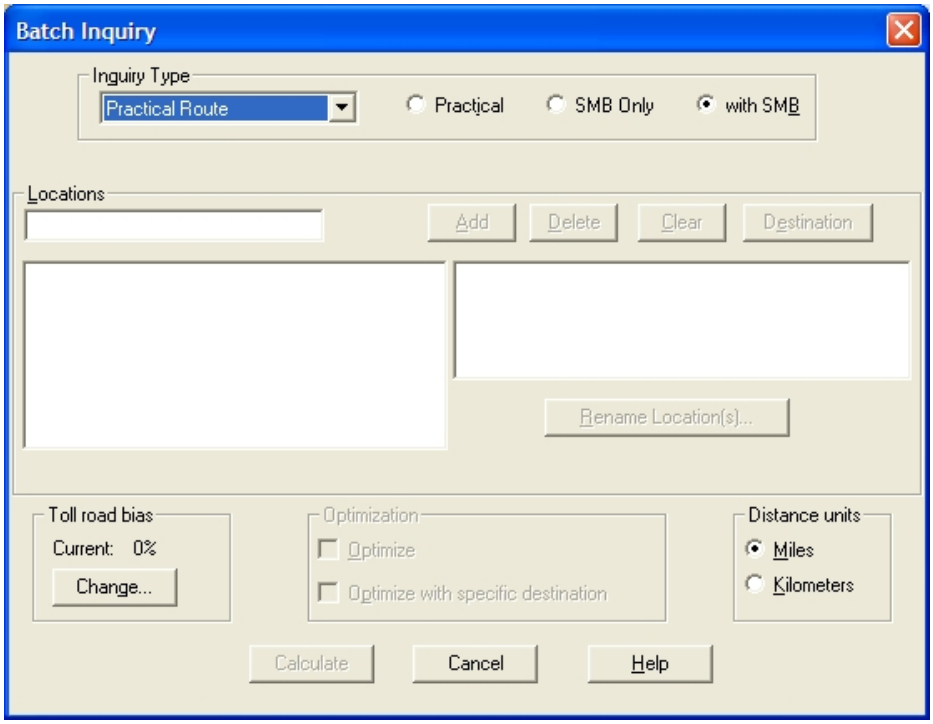
1. On the File menu, click on **Batch:Setup**.
2. In the Batch Input File - Batch.in dialog box (Figure 7-1), click on **Add** to open the Batch Inquiry dialog box.

Figure 7-1



3. In the Batch Inquiry dialog box, select a route or mileage inquiry in the **Inquiry Type** section.

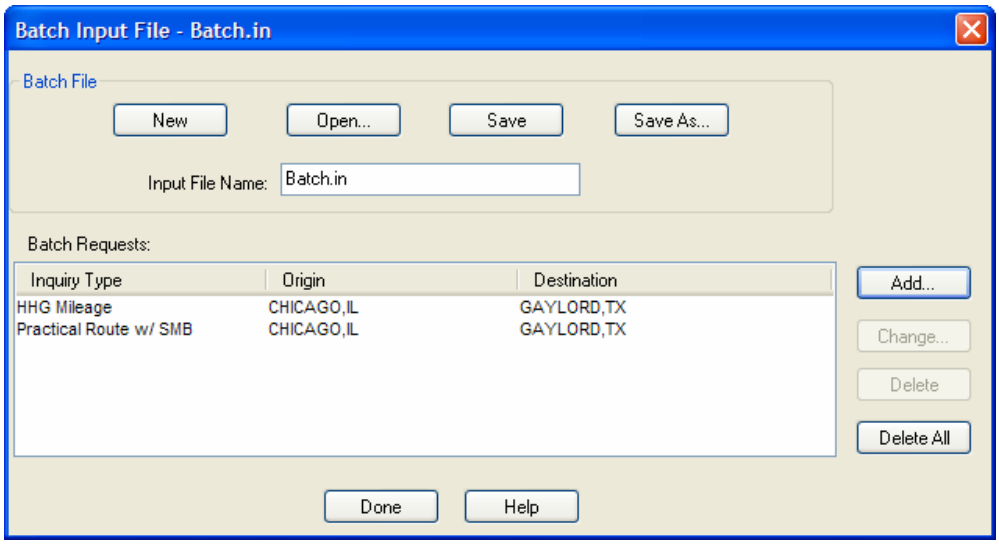
Figure 7-2



4. Enter your route list and specify any customization options, such as distance units and/or toll road bias.

5. Click on **Done**. This action returns you to the Batch Input File - Batch.in dialog box. The inquiry you have created will appear in the Batch Requests list box.

Figure 7-3



6. To create and include another inquiry in the current batch file click on **Add** again. Continue to add inquiries until the batch file is complete.

7. In the **Input File Name** field, enter a name for the file.

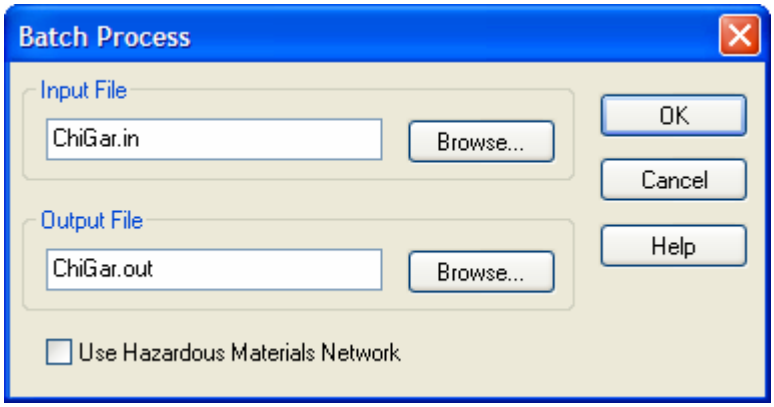
8. Click on **Done** to save the file under the name you have provided in the **Input File Name** field and exit the dialog box. Click on **Save** if you want to save the file but remain in the dialog box to create another batch input file. Batch input files are stored in the MileMaker directory on your hard drive. MileMaker will ask if you want to save changes to the existing batch file. Click on **Yes** to save the changes, or click on **No** to abandon the data you have entered.

Processing a Batch File

➲ To process a batch file from the File menu:

1. Click **Batch Process** on the toolbar, or on the File menu, select **Batch:Process**.
2. In the Batch Process dialog box **Input File** field, type in the name of the batch file you want to process. You can click on **Browse** to see a list of available files.

Figure 7-4

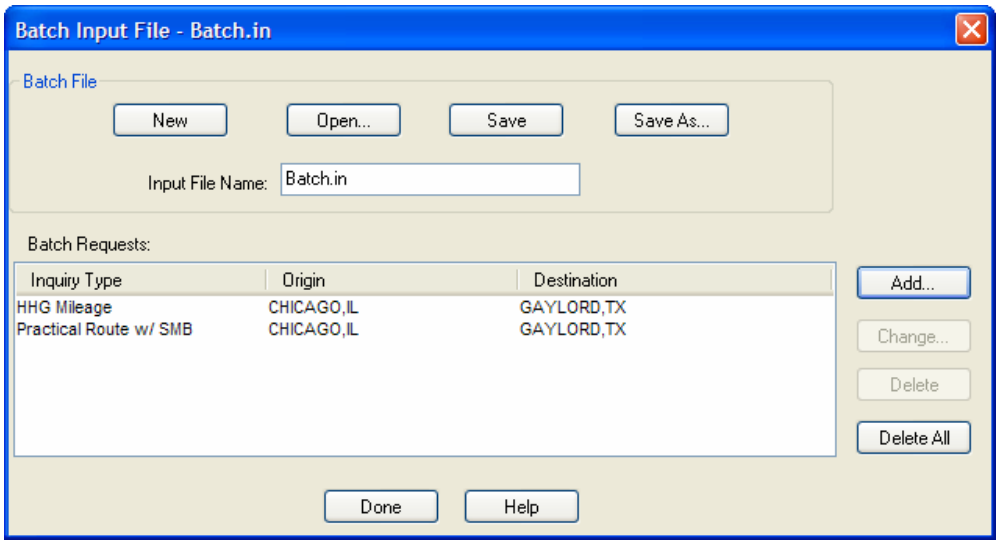


3. In the **Output File** text box, type in a name for the file in which the output from the batch inquiries will be stored.
4. Click on **OK** to start the batch process. MileMaker will display a message when the batch processing is complete.

Other Batch File Options

Once you have created one or more batch input files, you can use the following options in the Batch Input File - Batch.in dialog box to manage and edit them.

Figure 7-5



Open

Use to open an existing batch input file that you want to edit, delete or rename.

Save

Use to save a batch input file you have created. This option saves the file, but leaves the dialog box open so that you can create another batch input file. The **Done** button saves the file and exits the dialog box.

Save As

Use to save an existing batch input file under another file name.

Change

Use to edit a route that has been entered into the open batch input file. Highlight the route you want to edit. **Change** opens the route inquiry dialog box where you can edit the route as required.

Delete

Use to delete a route from a batch input file. Highlight the route you want to delete then press the **Delete** button.

Delete All

Use to delete all of the routes in the open batch input file. You can then use the **Add** button to add new routes.

Batch Record Formats

Use the batch record formats in this section to interpret your output files or to create batch input files without using MileMaker.

Description of All Request Types

Inquiry Type

MI: HHG Mileage Inquiry

MD: Single Origin Multiple Destination Inquiry

HA: HHG Audit Route Inquiry

HB: HHG Full Route with State Mileage Breakdown

HS: HHG State Mileage Breakdown Only Inquiry

PR: Practical Route Only Inquiry

PS: Practical State Mileage Breakdown Only Inquiry

PB: Practical Route with State Mileage Breakdown Inquiry

PM: Practical Miles Only Inquiry

Request File Record Types

The request file contains four types of 24-byte Records: the Header Record, the Origin Record, the Via Record, and the Destination Record.

Record sequence for a request

Record Name	Characters in Cols 1-2	Explanation
Header Record	HR	This record contains the type of request. In addition it can contain user specified information which will be passed back to the output file.
Optimization Record	OP	This record tells MileMaker SP32 to optimize the request. This record, if present, follows the Header Record.
Origin Record	OR	This record contains the starting point of the trip.
Via Record	VI	This record contains the intermediate stop-off point (optional).
Destination Record	DT	This record contains the final stopping point of the trip.

Header Record

The Header Record is used to tell MileMaker SP32 the type of request being sent. In addition, the optional user specified information can also be used to separate requests and specify information supplied by the user. For example, if you wish to keep a trip number, driver number, or bill of lading number attached to the request, simply put this information into columns 7-24 of the Header Record. **All non-occupied positions in all fields should contain spaces**. If the entire user specified information is not used, the remainder of the field must contain spaces.

Record Size: 24 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	HR	This field contains "HR" to indicate that this is a Header Record.
3 - 4	2	MI	Type of request. One of the following list: MI, MD, HA, HS, HB, PR, PS, PM, or PB. See page 66 for information on the request types.
5	1	M	This field contains an indicator to distinguish between distance in miles or kilometers. If the indicator is "M" or the field is blank, the distance is returned in miles. If the indicator is "K", the distance is in kilometers. Note that kilometer requests are only valid for Practical Route options.
6	1	Space	
7 - 24	18	Info.	User supplied information.

Optimization Record

This record tells MileMaker SP32 to optimize the request. This record, if present, follows the Header Record.

Record Size: 24 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	OP	This field contains "OP" to indicate that this is an Optimization Record.
3 - 4	2	05	This field indicates what the destination will be. In this example, the 5th record will be the destination. If there are spaces in this field, the program picks the destination.
5 - 24	20	Spaces	

Origin Record

The Origin Record indicates the starting point of the trip.

Record Size: 24 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	OR	The “OR” indicates an Origin record.
3 - 20	18	BARRINGTON	City name, SPLC, ZIP Code, or junction. If this is an SPLC, the following two fields contain spaces.
21 - 22	2	LA	County abbreviation. Field contains spaces if a county is not needed. The county code is not needed if an SPLC or junction is used.
23 - 24	2	IL	State abbreviation. The state code is not needed if an SPLC is used.

Via Record

The Via Record is optional. It is used to indicate a stop-off point in the route. Up to 26 records may be contained in a request record. In this example, the via point is Chicago, IL.

Record Size: 24 bytes

Cols.	Number of Characters	Sample Content	Explanation
1- 2	2	VI	The “VI” indicates that this is a Via record.
3 - 20	18	CHICAGO	City name, SPLC, ZIP Code, or junction.
21 - 22	2	LA	County abbreviation. The county name is not needed if an SPLC or junction is used.
23 - 24	2	IL	State abbreviation. The state code is not needed for an SPLC.

Destination Record

The Destination Record indicates the destination or final stopping point. In this example, the destination is Boston, MA. Note that the last city's request record must be a Destination Record.

Record Size: 24 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	DT	The "DT" indicates that this is a Destination Record.
3 - 20	18	BOSTON	City name, SPLC, ZIP Code, or junction.
21 - 22	2		County name abbreviated. It contains spaces if a county is not needed.
23 - 24	2	MA	State name abbreviated.

Renamed Locations

Renamed Locations can be included in your Request file. You must, however, specify the record type of the Renamed Location as an Origin, Via, or Destination record. (Refer to Description of All Request Types on page 66.) For Renamed Locations that are specified as Origin (OR) records, MileMaker SP32 defines the first location as the origin and subsequent locations as Via (VI) records. For Renamed Locations that are specified as Destination (DT) records, MileMaker SP32 defines the last location as the destination and preceding locations as Via (VI). The total number of locations in a request must not exceed 28. This includes locations contained in a Renamed Location.

Remember that a point-specific Error record contained in the Answer file refers to the line number where the error occurred. This includes locations contained in a Renamed Location.

The Answer File Structure

The Answer file contains seven types of 71-byte records: Header Record, Mileage Inquiry Record, Via Inquiry Record, Detailed Route Record, State Mileage Breakdown Record, Error Record, Last Record.

Record sequence for an answer

Record Name	Characters in Cols 1-2	Explanation
Header	HR	This record contains the type of request. It can also contain user information that is transferred back to the host.
Mileage Inquiry	MI	This record contains the origin and destination cities. It also contains the total toll, total non-toll, and total mileages between the origin and destination cities.
Via Inquiry	VI	This record contains the intermediate stop-off point and the mileage from the previous point to this stop-off point.
Detailed Route	DR	This record contains the detailed information on any given segment of a trip.
State Mileage Breakdown	SM	This record contains the state codes, total toll, non-toll, and total mileages per state along a route.
Error	ER	This record may contain from 1-13 error codes if a request cannot be completed.
Last	LR	This record indicates the end of the answer records for a given request.

Header Record

The Header Record returns the Answer Record type, the request type, the mileage indicator, and the optional user specified information.

Record Size: 71 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	HR	The Answer Record type "HR" indicates that this is a Header Record.
3 – 4	2	MI	Type of request. One of the following list: MI, MD, HA, HS, HB, PR, PS, PB, PM. See page 66 for information on the request types.
5	1	M	This field contains an indicator to distinguish between distance in miles or kilometers. If the indicator is "M" or the field is blank, the distance is returned in miles. If the indicator is "K", the distance is returned in kilometers. Kilometer request are only available for Practical Route options.
6	1	Space	
7 - 22	18	Info.	User supplied information.
23 - 71	49	Spaces	

Mileage Record

This record follows the Header Record for all inquiry types. Single Origin Multiple Destination Inquiries (MD) will contain multiple records.

Record Size: 71 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	MI	The Answer Record type "MI" indicates that this is a Mileage Record.
3 - 20	18	BARRINGTON	Origin city.
21 - 22	2	LA	Origin county. This field will contain spaces if a county code is not needed.
23 - 24	2	IL	Origin state.
25 - 42	18	CHICAGO	Destination city.
43 - 44	2		Destination county. This field will contain spaces if a county code is not needed.
45 - 46	2	IL	Destination state.
47 - 51	5	00018	Total mileage between origin and destination points. This field will contain zeros if the request type is MI, MD, or HA.
52 - 58	5	00005	Total toll miles or kilometers between origin and destination points. This field will contain zeros if the request type is MI, MD, or HA.
59 - 65	5	00013	Total non-toll miles or kilometers between origin and destination points. This field will contain zeros for request types MI, MD, or HA.
66 - 71	6	Spaces	

Via Record

The Via Record contains the name of an intermediate stop-off point, as well as the mileage from the previous point (either the origin or the previous stop-off point) to this stop-off point. In this example, the Via city is New York, NY. This type of record will only be returned for an HHG Mileage Inquiry (MI).

Record Size: 71 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	VI	The Answer Record type "VI" indicates that this is a Via Record.
3 - 20	18	NEW YORK	Via city name.
21 - 22	2	Spaces	Via city county name. This field will contain spaces if a county code is not needed.
23 - 24	2	NY	Via state name (abbreviated).
25 - 31	7	00898	Mileage from previous via city or origin city.
32 - 71	40	Spaces	

Route Record

The Route Record contains the detailed route information for a single segment of a route. This type of record will be returned for the following request inquiries: HHG Audit Route (HA), HHG Full Route with State Mileage Breakdown (HB), Practical Route Only (PR), and Practical Route with State Mileage Breakdown (PB). The following is an example of a segment of an answer record.

Record Size: 71 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	DR	The Answer Record type "DR" indicates that this is a Detailed Route Record.
3 - 19	17	I 90	This contains the highway segment's name.
20 - 21	2	SE	Direction of travel on the highway segment.
22 - 27	6	290	Miles or kilometers traveled on the highway segment.
28 - 54	27	CHICAGO,IL	End location on the highway segment.
55 - 60	6	08:00	Total accumulated time to the end of the highway segment from the origin city. This field contains spaces for all HHG inquiries. HHG inquiries are strictly based on mileages.
61 - 65	5	450	Total accumulated miles or kilometers to the end of the highway segment from the origin city.
66-71	6	TB	Highway notes such as HHG INDEX mileage, toll roads (TL), toll booths (TB), ferries (FY), via (VIA), etc.

State Mileage Breakdown Record

This record contains state codes in alphabetical order and the total mileage for each state along the route. This type of record will only be sent for the following request inquiries: HHG State Mileage Breakdown Only (HS), HHG Full Route with State Mileage Breakdown (HB), Practical State Mileage Breakdown Only (PS), and Practical Route with State Mileage Breakdown (PB). In this example, the origin is Jackson, MS, and the destination is Charleston, SC.

Record Size: 71 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	SM	The Answer Record type "SM" indicates that this is a State Mileage Breakdown record.
3 - 4	2	AL	State code for first state alphabetically in the route.
5 - 9	5	000217	Total miles or kilometers for the first state.
10 - 16	7	00000.0	Total toll miles or kilometers for the first state.
17 - 23	7	00217.0	Total non-toll miles or kilometers for the first state.
24 - 25	2	GA	State code for the second state alphabetically in the route.
26 - 30	5	00275	Total miles or kilometers for the second state.
31 - 37	7	00000.0	Total toll miles or kilometers for the second state.
38 - 44	7	00275.0	Total non-toll miles or kilometers for the second state.
45 - 46	2	MS	State code for third state alphabetically in the route.
47 - 51	5	00109	Total miles or kilometers for the third state.
52 - 58	7	00000.0	Total toll miles or kilometers for the third state.
59 - 65	7	00109.0	Total non-toll miles or kilometers for the third state.
66 - 71	6	Spaces	

If the route travels through more than three states, the Answer Records will contain as many State Mileage Breakdown Records as necessary to show all mileages in all states.

Error Record

The Error Record is sent when an error occurs for the current inquiry. Each Error Record may contain up to 13 errors. **If a request contains fewer than 13 errors, the remaining error code fields will contain spaces**.

Record Size: 71 bytes

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	ER	The Answer Record type "ER" indicates that this is an Error Record.
3 - 4	2	02	A number corresponding to a set of possible error codes. See page 83 for a list of Error messages and explanations. In this example, the error code 02 indicates that the location could not be found. If no error exists, this field will contain spaces.
5 – 6	2	17	This field indicates the line number where the error occurred. If this is a general error message however, the field will contain 00 (zeros). If no error exists, this field will contain spaces.
7	1	Space	
8 – 9	2	08	Error code 08.
10 – 11	2	00	General error code 00.
12	1	Space	
13 – 14	2	04	Error code 04.
15 – 16	2	14	The error occurred on line 14.
17	1	Space	
18 – 19	2	09	Error code 09.
20 – 21	2	00	General error code 00.
22	1	Space	
23 – 24	2	03	Error code 03.
25 – 26	2	19	The error occurred on line 19.
27	1	Space	
28 – 29	2	02	Error code 02.
30 – 31	2	26	The error occurred on line 26.
32	1	Space	
33 – 34	2	11	Error code 11.
35 – 36	2	00	General error code 00.
37	1	Space	
38 – 39	2	01	Error code 01.

40 – 41	2	28	The error occurred on line 28.
42	1	Space	
43 – 46	4	Spaces	Error code or spaces.
47	1	Space	
48 – 51	4	Spaces	Error code or spaces.
52	1	Space	
53 – 56	4	Spaces	Error code or spaces.
57	1	Space	
58 – 61	4	Spaces	Error code or spaces.
62	1	Space	
63 - 66	4	Spaces	Error code or spaces.
67	1	Space	
68 – 71	4	Spaces	Error code or spaces.

Last Record

This record is the final record for a given request in the answer file. It is used to indicate the end of information for the request inquiry.

Cols.	Number of Characters	Sample Content	Explanation
1 - 2	2	LR	The Answer Record type “LR” indicates that this is the Last Record.
3 - 71	69	Spaces	

Request/Answer Examples

HHG Mileage Inquiry

Request

```
HRMI DRIVER:  TOM SMITH
ORCHICAGO             IL
VIOAK PARK            IL
VIBARRINGTON        COIL
DTROSEMONT          COIL
```

Answer

```
HRMI DRIVER:  TOM SMITH
MICHICAGO           ILROSEMONT      COIL  66
VIOAK PK            IL     17
VIBARRINGTON      COIL     29
VIROSEMONT        COIL     20
LR
```

Single Origin Multiple Destination Inquiry

Request

```
HRMD DRIVER:  TOM SMITH
ORCHICAGO             IL
VIOAK PARK            IL
VIROSEMONT          COIL
DTBARRINGTON        COIL
```

Answer

```
HRMD DRIVER:  TOM SMITH
MICHICAGO           ILOAK PK        IL   17
MICHICAGO           ILROSEMONT    COIL   14
MICHICAGO           ILBARRINGTON  COIL   34
LR
```

HHG Audit Route Inquiry

Request

```
HRHA DRIVER:  TOM SMITH
ORCHICAGO             IL
VIMEMPHIS             TN
DTWEST MEMPHIS        AR
```

Answer

```
HRHA DRIVER:  TOM SMITH
MICHICAGO            ILW MEMPHIS     AR  540
DRCHICAGO            IL532MEMPHIS,TN          532HHG
DRUS  51        N    0N OF MEMPHIS,TN         532
DRI   40        W    5E OF W MEMPHIS,AR       537
DRUS  70        W    3W MEMPHIS,AR            540
LR
```

Note: On an HHG Audit Route Inquiry, the detail route line information consists of the summarization line, such as the first "DR" record above, for routes between HHG Key Points. Please note that on this type of inquiry the field containing total accumulated time contains all spaces.

HHG State Mileage Breakdown Only Inquiry

Request

```
HRHS DRIVER:  TOM SMITH
ORCHICAGO             IL
VIDETROIT             MI
VITORONTO             ON
VIGARY                IN
DTCOLUMBIA            MO
```

Answer

```
HRHS DRIVER:  TOM SMITH
MICHICAGO         ILCOLUMBIA       MO01353  31  1322
SMIL  290   13  277IN   90  14   76MI  525   2   523
SMM    98    0   98ON  350   2  348
LR
```

Practical Route Only inquiry

Request

```
HRPR DRIVER:  TOM SMITH
ORCHICAGO             IL
VIOAK PARK            IL
VIROSEMONT           COIL
DTBARRINGTON         COIL
```

Answer

```
HRPR DRIVER:  TOM SMITH
MICHICAGO        ILBARRINGTON       COIL  48  7  41
DRI  90     W   11W OF JEFFERSON PK,IL    0:19   11
DRIL 43     S    6OAK PK,IL               0:35   17
DRIL 43     N    6W OF JEFFERSON PK,IL    0:51   23
DRIL 72     W    3ROSEMONT,CO,IL          0:57   26
DRIL 72     W    2NW OF ROSEMONT,CO,IL    1:01   28
DRI  90     W    7S OF ROLLING MDWS,IL    1:10   35TL
DRIL 53     N    4SE OF PALATINE,IL       1:15   39
DRUS 14     W    8BARRINGTON,CO,IL        1:30   47
DRIL 59     S    1BARRINGTON,CO,IL        1:33   48
LR
```

Practical State Mileage Breakdown Only Inquiry

Request

```
HRPS DRIVER:  TOM SMITH
ORCHICAGO             IL
VIDETROIT             MI
VITORONTO             ON
VIGARY                IN
DTCOLUMBIA            MO
```

Answer

```
HRPS DRIVER:  TOM SMITH
MICHICAGO          ILCOLUMBIA    MO   1439  18  1421
SMIL  313   5   308IN   90   7   83MI  433   2   431
SMMO  123   0   123ON  480   4  476
LR
```

Practical Route with State Mileage Breakdown Inquiry

Request

```
HRPB DRIVER:  TOM SMITH
ORCHICAGO             IL
VIOAK PARK            IL
VIROSEMONT          COIL
DTBARRINGTON        COIL
```

Answer

```
HRPB DRIVER:  TOM SMITH
MICHICAGO         ILBARRINGTON       COIL  48  7  41
DRI  90     W   11W OF JEFFERSON PK,IL    0:19   11
DRIL 43     S    6OAK PK,IL               0:35   17
DRIL 43     N    6W OF JEFFERSON PK,IL    0:51   23
DRIL 72     W    3ROSEMONT,CO,IL          0:57   26
DRIL 72     W    2NW OF ROSEMONT,CO,IL    1:01   28
DRI  90     W    7S OF ROLLING MDWS,IL    1:10   35TL
DRIL 53     N    4SE OF PALATINE,IL       1:15   39
DRUS 14     W    8BARRINGTON,CO,IL        1:30   47
DRIL 59     S    1BARRINGTON,CO,IL        1:33   48
SMIL 48  7    41
LR
```

Practical Route in Kilometers

Request

```
HRPBK DRIVER:  TOM SMITH
ORMONTREAL             PQ
DTSUDBURY              ON
```

Answer

```
HRPBK DRIVER:  TOM SMITH
MIMONTREAL PQSUDBURY  ON  700   4.8   695.5
DRP         138   SW   4.8S OF WESTMOUNT,PQ       0:11  5
DRAUTORTE   15    NW   6.4SE OF ST LAURENT,IL,PQ  0:15  11TL
DRAUTORTE   40     W  70.8N OF PTE FORTUNE,ON     1:02   23
DRTRANS-CAN 417   NW  11.2SE OF HAWKESBURY,ON     1:09   26
DRP         417    W 106.2NE OF OTTAWA,ON         2:18  200
DRTRANS-CAN 417   SW  32.2SW OF KANATA,ON         2:39  232
DRTRANS-CAN 17    NW 338.1E OF N BAY,ON          6:55  570
DRTRANS-CAN 11-17  W   6.4N OF N BAY,ON          7:00  576
DRTRANS-CAN 17     W 123.9 SUDBURY,ON            8:36  700
SMON 618  0.0  618.2PQ   82    4.8   77.3
LR
```

ERROR CODES

The error codes supplied in the output file are classified as two distinct types; the first type identifies errors with regard to a specific point and its location (line number) within an inquiry; the second type identifies general error messages pertaining to the entire inquiry. An incorrect spelling of a city name and the line number on which it occurred is an example of an error identified in the first category of error types, whereas an unavailable option request is an example of an error identified in the second category of error types.

The error code field is four characters in length; the first two characters are the error code; the last two characters indicate the line number where the error occurred.

Error Code	Error Message	Example	Explanation of Example
01	Invalid Request Type	0100	The first two characters indicate an error code 01, “Invalid Request Type.” The last two characters indicate a general error code 00.
02	Location Not Found	0218	The first two characters indicate an error code 02, “Location Not Found.” The last two characters indicate that the error occurred on line 18.
03	State Not Found	0323	The first two characters indicate an error code 03, “State Not Found.” The last two characters indicate that the error occurred on line 23.
04	County Qualifier Required	0417	The first two characters indicate an error code 04, “County Qualifier Required.” The last two characters indicate that the error occurred on line 17.
05	Route Error	0500	The first two characters indicate an error code 05, “Route Error.” The last two characters indicate a general error code 00.
06	Secondary Point Error	0600	The first two characters indicate an error code 06, “Secondary Point Error.” The last two characters indicate a general error code 00.
07	Calc Point Error	0700	The first two characters indicate an error code 07, “Calc Point Error.” The last two characters indicate a general error code 00.

Error Code	Error Message	Example	Explanation of Example
08	Kilometers Not Available on HHG Inquiries	0800	The first two characters indicate an error code 08, “Kilometers Not Available on HHG Inquiries.” The last two characters indicate a general error code 00.
10	Same Location on Consecutive Lines Is Invalid	1014	The first two characters indicate an error code 10, “Same Location on Consecutive Lines Is Invalid.” The last two characters indicate that the error occurred on line 14.
11	Invalid Character	1119	The first two characters indicate an error code 11, “Invalid Character.” The last two characters indicate that the error occurred on line 19.
12	Invalid Entry-Data Must Be a City/County/State, Junction or SPLC	1211	The first two characters indicate an error code 12, “Invalid Entry-Data Must Be a City/County/State, Junction or SPLC.” The last two characters indicate that the error occurred on line 11.
13	SPLC Not Found	1317	The first two characters indicate an error code 13, “SPLC Not Found.” The last two characters indicate that the error occurred on line 17.
14	Unable to Calc Correctly	1426	The first two characters indicate an error code 14, “Unable to Calc Correctly.” The last two characters indicate that the error occurred on line 26.
15	Bad Long/Lat	1500	The first two characters indicate an error code 15, “Bad Long/Lat.” The last two characters indicate a general error code 00.
16	Unexpected End of Batch File	1600	The first two characters indicate an error code 16, “Unexpected End of Batch File.” The last two characters indicate a general error code 00.
17	Memory Limit Exceeded: Separate Route into Two Routes:	1700	The first two characters indicate an error code 17 “No Space in Memory For Data.” The last two characters indicate a general error code 00.

Error Code	Error Message	Example	Explanation of Example
18	One Origin and One Destination Are Required	1800	The first two characters indicate an error code 18, “One Origin and One Destination Are Required.” The last two characters indicate a general error code 00.
19	Insufficient Memory for Route	1900	The first two characters indicate an error code 19, “Insufficient Memory for Route.” The last two characters indicate a general error code 00.
20	Unable to Complete Route Error	2000	The first two characters indicate an error code 20 “Unable to Complete Route Error.” The last two characters indicate a general error code 00.
21	Unable to Complete Route - Use HHG Mileage Option	2100	The first two characters indicate an error code 21, “Unable to Complete Route - Use HHG Mileage Option.” The last two characters indicate a general error code 00.
22	Invalid Corporate Limit	2212	The first two characters indicate an error code 22, “Invalid Corporate Limit.” The last two characters indicate that the error occurred on line 12.
23	Junction Not Valid for HHG	2307	The first two characters indicate an error code 23, “Junction Not Valid for HHG.” The last two characters indicate that the error occurred on line 7.
24	Unable to Process SPLC - Contact Rand McNally	2403	The first two characters indicate an error code 24, “Unable to Process SPLC - Contact Rand McNally.” The last two characters indicate that the error occurred on line 3.
25	Option Not Available	2500	The first two characters indicate an error code 25, “Option Not Available.” The last two characters indicate a general error code 00.
28	No More Than 500 Locations Can Be Entered	2800	The first two characters indicate an error code 28, “No More Than 500 Locations Can Be Entered.” The last two characters indicate a general error code 00.

Error Code	Error Message	Example	Explanation of Example
29	Incorrect Record Type	2900	The first two characters indicate an error code 29, “Incorrect Record Type.” The last two characters indicate a general error code 00.
30	Renamed Location Not Found	3012	The first two characters indicate an error code 30, “Renamed Location Not Found.” The last two characters indicate that the error occurred on line 12.
70	No More Than 50 Locations Can Be Optimized	7000	The first two characters indicate an error code 70, “No More Than 50 Locations Can Be Optimized.” The last two characters indicate a general error code 00.
71	Invalid Optimization Destination	7100	The first two characters indicate an error code 71, “Invalid Optimization Destination.” The last two characters indicate a general error code 00.
72	Optimizer Error	7200	The first two characters indicate an error code 72, “Optimizer Error.” The last two characters indicate a general error code 00.
73	Optimization Requires no Duplicate Locations	7300	The first two characters indicate an error code 73, “Optimization Requires no Duplicate Locations.” The last two characters indicate a general error code 00.
74	ZIP Code Unassigned by U.S. Post Office	7400	The first two characters indicate an error code 74, “ZIP Code Unassigned by U.S. Post Office.” The last two characters indicate a general error code 00.
79	Multiple Locations for ZIP Code	7903	The first two characters indicate an error code 79, "Multiple Locations for ZIP Code." The last two characters indicate that the error occurred on line 3.
80	Total Mileage Limit Exceeded: Separate into 2 Routes	8012	The first two characters indicate an error code 80, “Total Mileage Limit Exceeded: Separate into 2 Routes.” The last two characters indicate that the error occurred on line 12.

Error Code	Error Message	Example	Explanation of Example
81	Total Kilometer Limit Exceeded: Separate into 2 Routes	8113	The first two characters indicate an error code 81, “Total Kilometer Limit Exceeded: Separate into 2 Routes.” The last two characters indicate that the error occurred on line 13.
82	Latitudes and Longitudes Valid for MileMaker Practical Only	8204	The first two characters indicate an error code 82, "Latitudes and Longitudes Valid for MileMaker Practical, Only." The last two characters indicate that the error occurred on line 4.
83	Invalid Latitude and Longitude	8305	The first two characters indicate an error code 83, "Invalid Latitude and Longitude." The last two characters indicate that the error occurred on line 5.

ADDITIONAL FEATURES

Chapter 8

Chapter Contents

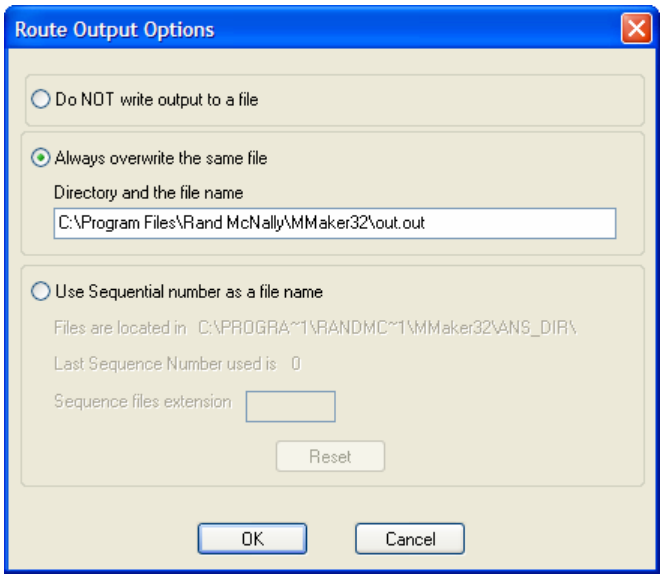
Route Output Maintenance

The Route Output Maintenance feature allows you to instruct the MileMaker program to write an output file in batch format every time you retrieve a mileage or route. It is designed for certain very high volume MileMaker users. In most cases, you are better off using the **Batch** option on the file menu to create batch files.

➲ To use the Route Output Maintenance feature:

1. On the Features menu, select **Route Output Maintenance**.
2. In the Route Output Options dialog box, select an output file option:

Figure 8-1



Do NOT write output to a file

This is the default setting; no output file is created.

Always overwrite the same file

After selecting this option, type in the directory, file name, and file extension. This same file will be used each time an inquiry is processed.

Note: Note to Network Users: The name of the file is unique to each workstation.

Use Sequential number as a file name

MileMaker will write to a file name that is a sequential number with an extension provided by the user. Each time you process an inquiry, MileMaker will increment that sequential number by 1.

- Use the **Reset** button in this option to reset the sequential number to zero. Resetting will erase all of the files with the specified extension and a name starting from zero to the last number used from the default directory. If you want to save the files, you can rename them or move them to a different directory.

Note: Note to Network Users: The default directory is unique for each user.

3. Click on **OK** to accept the specified option.

Update via Internet

The Update via Internet feature provides a means of downloading data and other updates from the Internet, and a means of viewing the download history log.

Download Updates

The Download Updates feature provides a means of downloading data and other updates from the Internet. When the **Update via Internet:Download Updates** feature is selected you will either receive a message box indicating that all files are presently up to date or a dialog box listing available updates.

➲ If all files are presently up to date:

1. After clicking **Update via Internet:Download Updates** the "**All files are presently up to date**" message box appears.
2. To exit, click **OK**.

➲ If updates are available:

1. After clicking **Update via Internet:Download Updates** the **MileMaker SP32 Updates** dialog box appears.
2. Click the check boxes for the updates you wish to download.
3. Click **Download Updates** to begin the download. The dialog displays the progress bar to indicate how much data has downloaded. When the download completes the "**Download from Internet completed. Please close and restart the Application to complete the Update process.**" message appears.
4. To exit, click **OK**.

Note: Clicking **OK** returns you to the MileMaker SP32 application. You can continue to work without the updates applied. To apply the updates follow the procedure below.

➲ To apply the updates:

1. If MileMaker SP32 is still running, then shutdown MileMaker SP32. On the **File** menu, click **Exit**.
2. Restart MileMaker SP32. Click the MileMaker SP32 desktop icon. The **MileMaker SP32 Update** dialog will appear.
3. Do one of the following:
   - Click **OK** to start the update process. Once the update process is complete, MileMaker SP32 will restart.

     or

   - Click **Cancel** to start MileMaker SP32 without applying the updates.

Note: The **MileMaker SP32 Update** dialog will continue to appear upon restart until the updates are applied.

The update installation process will closely resemble the original MileMaker SP32 installation.

View Download History

The View Download History feature provides a means of viewing the download history log. When the **Update via Internet:View Download History** feature is selected the download history log containing the update file name, version, size, download date, and upload date is displayed.

➲ To view the download history log:

1. Click **Update via Internet:View Download History**. The **MileMaker SP32 Update History** dialog box appears.
2. To exit, click **Close**.

MILEMAKER SP32 FOR MICROSOFT EXCEL

Appendix

A

Appendix Contents

Entering location data in an Excel worksheet

This section describes how to enter locations into an Excel worksheet so that you can compute mileages between them. MileMaker mileage formulas will read two alternative data formats in an Excel worksheet: you can enter standard MileMaker location types into individual worksheet cells or you can enter cities and states in separate cells.

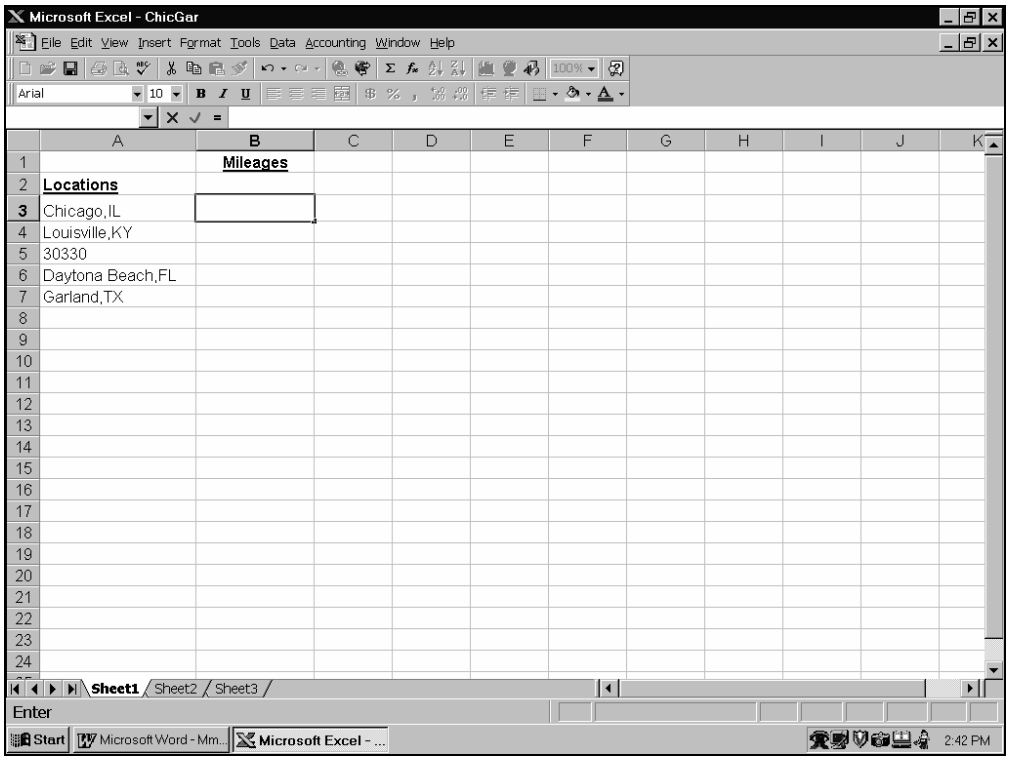
Entering Standard MileMaker Location Types

You can enter the following types of locations into a single cell of a MileMaker for Excel spreadsheet:

- A city name, a comma, and a state or province code
- A truck-stop name, a comma, and a state code
- A junction
- An SPLC (Standard Point Location Code)
- A 5-digit U.S. ZIP Code

For more information on entering these types of locations, see page 21 of this User Guide.

Figure A-1: Location data entered in standard MileMaker format



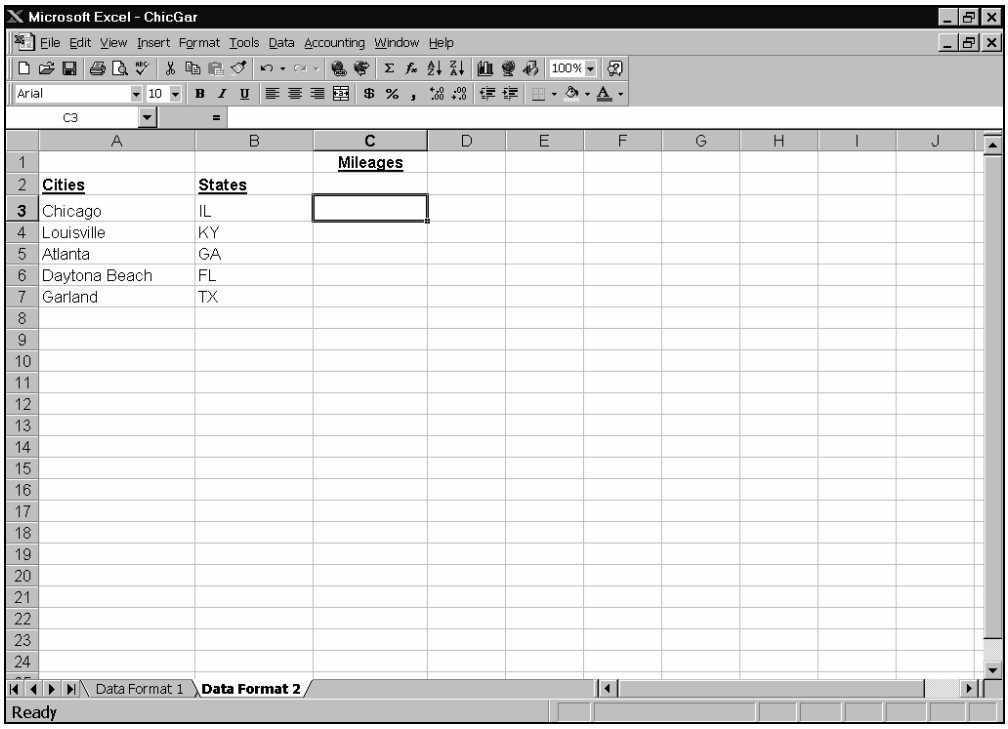
When your worksheet contains location data entered in this fashion, your formulas will refer to each location with a single cell. To compute the HHG mileage between Chicago and Louisville with the data shown in Figure A-2, you would enter the formula:

=hhg(a3,a4)

Entering Cities and States Separately

You can also enter cities and states into separate cells of the worksheet.

Figure A-2: Location data entered in separate cells



When your worksheet contains location data entered in this fashion, your formulas will refer to each location with two cells. To compute the HHG mileage between Chicago and Louisville with the data shown in Figure A-3, you would enter the formula:

=hhg2(a3,b3,a4,b4)

Note: If MileMaker SP32 for Microsoft Excel cannot identify a location when computing a mileage, a browse screen appears that allows you to search for a valid location. For more information

Calculating Mileages in Microsoft Excel

You can use MileMaker SP32 for Microsoft Excel to calculate the following types of mileages between locations in your worksheet:

- HHG mileages
- HHG state mileage breakdowns
- Practical mileages
- Practical state mileage breakdowns

Note: If you want to enter a route with stop-offs, you must calculate the mileage between each pair of locations in the route. For example, to calculate mileages for the route Chicago, IL to Daytona Beach, FL to Garland, TX you would need to first calculate the mileage between Chicago, IL and Daytona Beach FL, then the mileage between Daytona Beach, FL and Garland, TX. To get the mileage for the entire route you would then total the column containing the individual mileages.

➲ To enter locations and calculate mileages:

1. Create a new Microsoft Excel worksheet or open an existing one.
2. Enter each location that will be used in your mileage calculations, using one of the data formats described in the previous section.
3. Type in a mileage formula in a separate cell (Figure A-4), using one of the formulas on page 99. Press **Enter** to calculate the result. The mileage answer will replace the formula in the cell (Figure A-5).

Note: Each time you calculate a formula, a transaction is deducted from your transaction balance.

Figure A-3: Excel worksheet with mileage formula

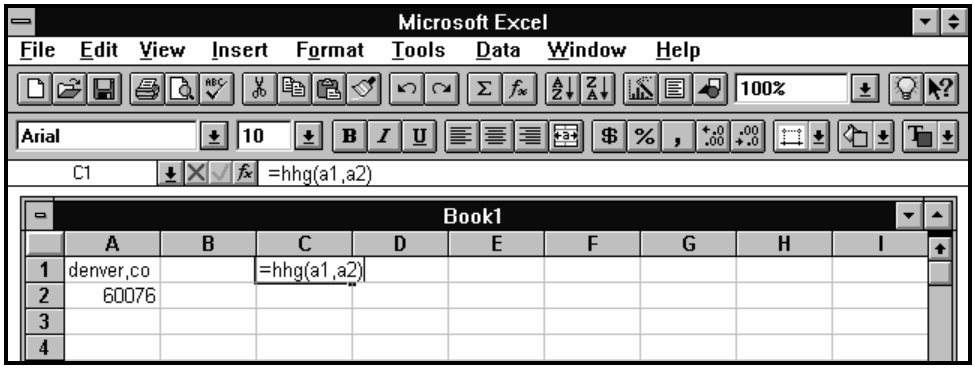
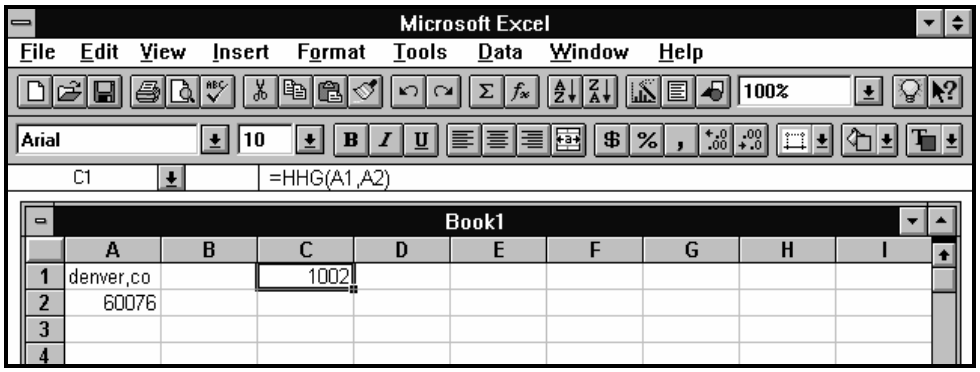


Figure A-4: Worksheet after mileage formula has been calculated



4. Repeat step 3 to calculate mileages between additional pairs of locations. You can enter both HHG and Practical mileage formulas in the same worksheet for as many pairs of locations as you wish.

5. When you have calculated all of the mileages your require, run one of the macros provided with MileMaker SP32 for Microsoft Excel to convert the formula cells to static mileage numbers. For instructions on using the macros, see page 103.

Note: If you do not convert the formulas with one of these macros, the mileage formulas in the file will be recalculated when you re-open the file. These recalculations will be subtracted from your transaction balance.

6. Save the worksheet.

Note: You can open the saved worksheet, which no longer contains mileage formulas, with the standard Microsoft Excel program or with MileMaker SP32 for Microsoft Excel.

Mileage Formulas

Consult the tables in this section for the mileage formulas that you can enter into MileMaker SP32 for Microsoft Excel.

➲ To select a formula:

1. Choose the table that corresponds to the type of location data in your worksheet.
   - The formulas in the table labeled **Standard MileMaker Location Data** will read locations entered into individual cells.
   - The formulas in the table labeled **Cities and States in Separate Cells** will read city and state data entered into different cells.
2. Select the row that displays the formulas for the type of mileage you want to calculate:
   - HHG: These formulas calculate the HHG mileage between the specified origin and destination.
   - HHGsmb: These formulas calculate the HHG mileage traversed in each state between an origin and a destination.
   - PRAC: These formulas calculate the Practical mileage between the specified origin and destination.
   - PRACsmb: These formulas calculate the Practical mileage traversed in each state between an origin and a destination.
3. Choose either the formula that has the browse feature turned on or the formula that disables the browse feature (Browse Feature Off). When the browse feature is on, a list of locations appears when the program encounters an invalid location in a formula. When the browse feature is turned off, the program returns an error value when an invalid location is processed. For more information on the browse feature, see page 101.

Standard MileMaker Location Data

	Browse Feature On	**Browse Feature Off**
HHG	=hhg(a1,a2)	=hhgnc(a1,a2)
HHGsmb	=hhgsmb(a1,a2)	=hhgsmbnc(a1,a2)
PRAC	=prac(a1,a2)	=pracnc(a1,a2)
PRACsmb	=pracsmb(a1,a2)	=pracsmbnc(a1,a2)

Cities and States in Separate Cells

	Browse Feature On	Browse Feature Off
HHG	=hhg2(a1,b1,a2,b2)	=hhgnc2(a1,b1,a2,b2)
HHGsmb	=hhgsmb2(a1,b1,a2,b2)	=hhgsmbnc2(a1,b1,a2,b2)
PRAC	=prac2(a1,b1,a2,b2)	=pracnc2(a1,b1,a2,b2)
PRACsmb	=pracsmb2(a1,b1,a2,b2)	=pracsmbnc2(a1,b1,a2,b2)

Editing Formulas in the Microsoft Excel Formula Bar

You can use the Microsoft Excel Formula Bar to edit the currently selected cell. If the cell shows the result of a mileage calculation, the Formula Bar displays the formula that was entered into the cell. Thus, if you have calculated a mileage, you can still view and edit the mileage formula for that cell in the Formula Bar.

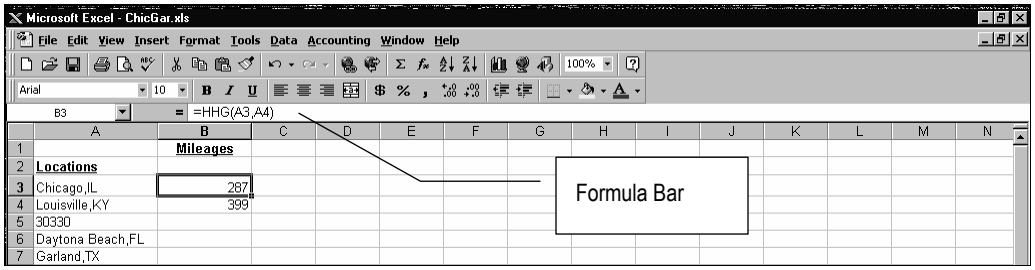


Figure A-5: Formula Bar showing formula for cell B3

Note: If you use the Formula Bar to change a location in a mileage formula or to change the type of mileage calculation, MileMaker SP32 for Microsoft Excel automatically recomputes the mileage. Each calculation counts as a new transaction.

➲ To edit a formula in the Formula Bar:

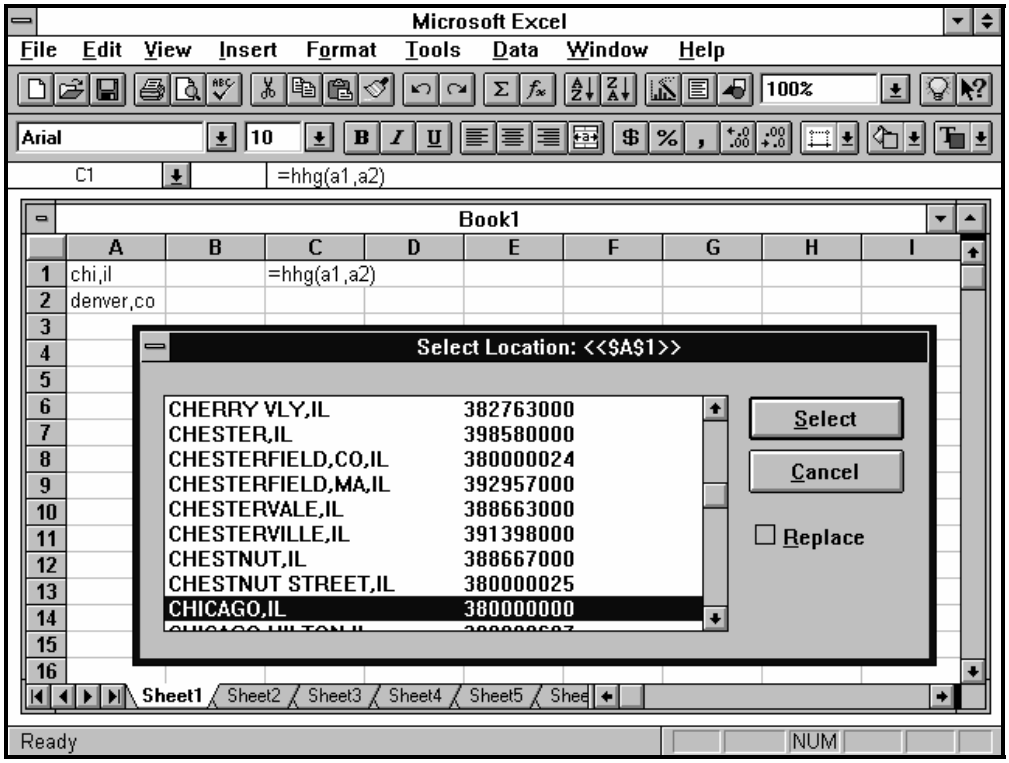
1. Highlight the portion of the formula you want to change.
2. Press the **Delete** key to delete the highlighted information then enter any new information or begin typing the new information, which will automatically replace the highlighted material.
3. Press **Enter** to enter the new formula into the cell and recalculate the mileage.

Using the Browse Feature

You may have incorrectly entered a location name, or you may have entered a ZIP Code that contains multiple locations. When you process a formula that refers to one of these types of locations, a browse screen appears (Figure A-7). You must select the correct location from the browse screen to complete the mileage calculation. You can also replace the value in the worksheet cell with the corrected location if you wish.

If you do not want the browse screen to appear while you are entering data, you can disable the browse function.

Figure A-6: Sample browse screen



Selecting a Location Entry with the Browse Screen

➲ To select a location with the browse screen:

1. Scroll through the list of locations and highlight the selection you want to use in your mileage formula.
2. If you want to complete the calculation, *but leave the cell entry in your worksheet unchanged*, press the **Select** button.

3. If you want to complete the calculation, *and replace the cell entry in your worksheet with the selected location*, place an "X" in the **Replace** box by clicking on the box, then press the **Select** button.

Disabling the Browse Feature

If you do not want the location list to appear when the program encounters an invalid location, you can disable the browse feature. To do so, use one of the formulas in the column labeled **Browse Feature Off** on page 99. The term **nc** in these formulas tells the program to return an error value when it encounters an invalid location rather than display the location list. The error values returned by MileMaker SP32 for Microsoft Excel are described in the next section.

Microsoft Excel Error Values

You may encounter the following error values when using MileMaker SP32 for Microsoft Excel. Please consult your Microsoft Excel user manual for detailed information on error values.

#DIV/0!	Attempting to divide by zero
#N/A	Non-available value
#NAME?	Microsoft Excel did not recognize the name
#NULL!	Invalid intersection of two values
#NUM!	Incorrect use of a number
#REF!	Cell is not valid
#VALUE!	Incorrect argument or operation
####	Indicates that the column must be wider to display data
-1	General error code. Check to be sure that you have entered the mileage formula correctly. Use the data entry options information in this chapter as a reference.

If you encounter error values when using MileMaker SP32 for Microsoft Excel, check to make sure you have:

- Used valid data entry procedures. For example, five-digit ZIP Codes are valid for HHG mileage calculations only. An error value will occur if you try to use a ZIP Code as a location point for a Practical mileage calculation.
- Entered the correct column and row headings for the cells in your formula.
- Entered the mileage formula correctly.

Call Rand McNally & Company Technical Support at (800) 234-4069 if you cannot find the source of the error value.

Data Conversion Formulas

You may wish to see the city name that corresponds to an SPLC or ZIP Code in your worksheet or, conversely, the ZIP Code that corresponds to a city name. MileMaker SP32 for Microsoft Excel provides formulas that allow you to convert location data from one type to another type.

➲ To convert a location type:

- Enter one of the following formulas in a new cell of the spreadsheet:

=codetocity(a1)	Converts the ZIP Code or SPLC code in the designated cell to a city name and state.
=cityzip(a1)	Converts the city name in the designated cell to a ZIP Code. There is no Browse feature with this function. If multiple locations are found for a ZIP Code, the first designated location is returned.
=zipchg(a1,flag)	Converts the ZIP Code in the designated cell to its corresponding city name or SPLC. Set the flag to "0" to convert the ZIP Code to a city name. Set the flag to "1" to covert the ZIP Code to an SPLC. There is no Browse feature with this function. If multiple locations are found for a ZIP Code, the first designated location is returned.

Note: Data conversions do not count as transactions.

Saving the Mileage Worksheet

Before leaving a spreadsheet, make sure that you convert the formulas to permanent mileages by running either the **SetToManual** or **Freeze** macro on the cells containing mileage formulas. If you do not run **SetToManual** or **Freeze**, the mileage formulas will be recalculated when you re-open the file. *These recalculations will be subtracted from your transaction balance.*

➲ To freeze your mileages and save a MileMaker SP32 for Excel worksheet:

1. Select the worksheet cells containing mileage formulas. You can select and freeze multiple formula cells at one time.
2. On the Tools menu select **Macro ∑ Macros.**
3. In the Macro dialog box (Figure A-8), type the macro name, *SetToManual* or *Freeze*, then press the **Run** button.

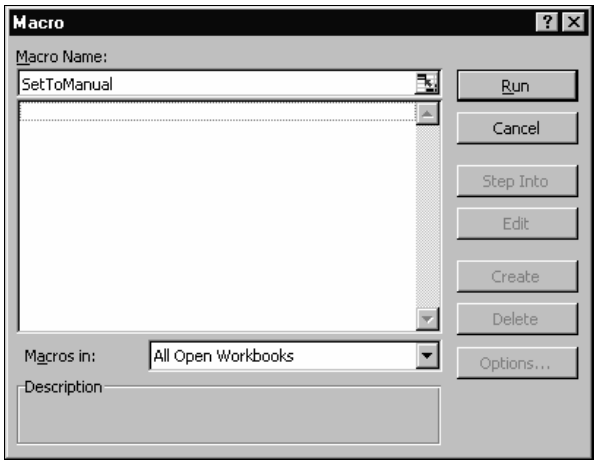


Figure A-7: Macro dialog box

   - If you use **SetToManual**, the formulas in the selected cell are automatically replaced with the calculated mileages.
   - If you use **Freeze**, the selected cells are marked when you press the **Run** button. You must then press **Enter** to actually replace the values in the cells.
4. When all of the formulas have been converted to static values, save the worksheet using the standard file save options on the File menu. You can then open the worksheet in MileMaker SP32 for Microsoft Excel without recalculating the mileages and deducting transactions. You can also open the worksheet on any computer with the standard Microsoft Excel program.

Monitoring and Adding Transactions

Each time you calculate a mileage formula in a MileMaker SP32 for Microsoft Excel worksheet, a transaction is deducted from your transaction balance. Use the Transaction Inventory dialog box to monitor your transaction balance and add transactions to the balance.

- You can access the Transaction Inventory dialog box from inside the main MileMaker SP32 program (see page 56).

MILEMAKER MENU AND TOOL BAR ITEMS

Appendix

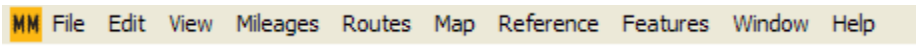
B

Appendix Contents

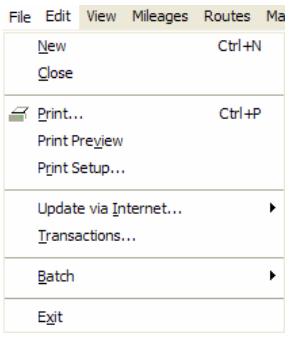
Introduction

Like other Windows applications, the MileMaker program's menu bar groups related commands and options. When you click on a word in the menu bar, a drop-down menu appears. Move your cursor to the item in the menu you want, and click on it to highlight and activate it.

Menu Items



File Menu



New

Creates a new active window with no mileage or route information. In the title bar, MileMaker calls new files Route 1, Route 2, and so on.

Close

Closes the active window.

Print

Brings up the standard Print dialog box. (See page 41.)

Print Preview

Displays the active document the way it will look when it is printed on the currently selected printer.

Print Setup

Displays the standard Print Setup dialog box in which you can view and change the active printer, the printing orientation, and the paper size and source.

Update via Internet

Download Updates

Displays a message box indicating that all files are presently up to date or a dialog box where you can download toll cost and other updates from the Internet.

View Download History

Displays a dialog box where you can view the download history log containing the update file name, version, size, download date, and upload date.

Transactions

Displays the Transaction Inventory window in which you can view how many transactions are remaining. You can also add transactions from this window. On-screen instructions for adding transactions are included. (See page 57.)

LAN Interface

The LAN Interface allows third party software developers to use routes calculated by Rand McNally MileMaker inside their software applications. There can be only one LAN Interface running on one Network, so it is available only in administrative mode.

Batch (Map option only)

Brings up the Batch dialog box that allows you to enter a number of inquiries and process them as a group at a later time. (See Chapter 7.)

Setup

Brings up the Batch Input File-Batch.in dialog box in which you create and add mileage and/or route inquiries to a batch file for later processing.

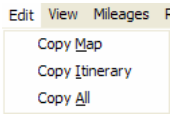
Process

Brings up the Batch Process dialog box in which you retrieve your batch file and process it to an output data file, which you name.

Exit

Quits MileMaker software and returns you to the Windows main menu screen.

Edit Menu



Copy Map (Map Option only)

Copies the active map to the Windows clipboard for pasting into another Windows application.

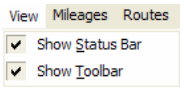
Copy Itinerary

Copies the itinerary for the active file to the Windows clipboard for pasting into another Windows application.

Copy All

Copies both the map (optional) and the itinerary to the Windows clipboard for pasting into another Windows application.

View Menu



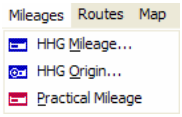
Show Status Bar

When checked, this option displays information in a bar at the bottom of the MileMaker window.

Show Toolbar

When checked, this option displays the command buttons at the top of the screen.

Mileages Menu



HHG Mileage

Brings up the HHG Inquiry dialog box in which you can retrieve HHG mileages between any two points with or without stop-offs along the way. Calculations are performed between each pair of locations. The total mileage between the origin and destination is also generated.

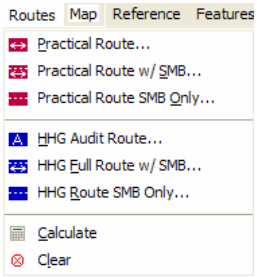
HHG Origin

Brings up the HHG Mileage Inquiry dialog box in which you can retrieve HHG mileages from the same origin to multiple destinations. Calculations are performed between the origin and each of the destinations that follow.

Practical Mileage

Brings up the Practical Mileage Inquiry dialog box in which you can retrieve the most time- and fuel-efficient route. These mileages are not calculated according to HHG tariff rules. The county where each location resides is also displayed.

Routes Menu



Practical Route

Brings up the Practical Route Inquiry dialog box in which you can retrieve a Practical Route (distance in miles or kilometers). Mileages retrieved in Practical Routes reflect the most time- and fuel-efficient routes.

Practical Route with SMB

Brings up the Practical Route Inquiry dialog box in which you can retrieve a Practical Route (distance in miles or kilometers), plus the practical distance (miles or kilometers) traveled in each state.

Practical Route SMB Only

Brings up the Practical Route Inquiry dialog box in which you can retrieve the practical distance (miles or kilometers) traveled in each state along a route.

HHG Audit Route

Brings up the HHG Route Inquiry dialog box in which you can retrieve a shortest route which lists the first and last Key Points traversed and provides HHG index mileages (if two or more Key Points are traversed).

HHG Full Route with SMB

Brings up the HHG Route Inquiry dialog box in which you can retrieve a shortest route that provides full route detail even if the route is between Key Points. The shortest distance (miles) traveled in each state along the route is also provided.

HHG Route SMB Only

Brings up the HHG Route Inquiry dialog box in which you can retrieve the shortest distance (miles) traveled in each state along a route.

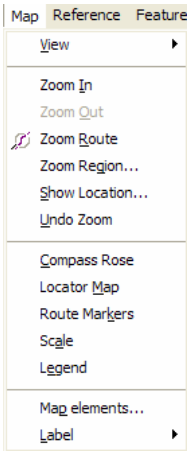
Calculate

Processes the current inquiry. Transactions are deducted from the total each time you select Calculate.

Clear

Erases the route currently displayed on the map and all route and mileage information.

Map Menu (Map Option only)



View

Map Only

After you generate a map and itinerary for a Practical Route, this selection moves the splitter handle to the far left of the screen to hide the itinerary and display only the map.

Itinerary Only

After you generate a map and itinerary for a Practical Route, this selection moves the splitter handle to the far right of the screen to hide the map and display only the itinerary.

Map/Itinerary Split

After you generate a map and itinerary for a Practical Route, this selection restores the default display of the map on the right, the itinerary on the left, and the splitter handle down the middle.

Zoom In

Zooms in to the next scale level and increases the level of detail in the visible area of the map. MileMaker starts out at a scale most appropriate for the map it is

showing you, or at the scale necessary to view your route if you choose to Zoom Route. There are 10 zoom levels in MileMaker.

Zoom Out

Zooms out to the next scale level and decreases the level of detail in the visible area of the map. MileMaker starts out at a scale most appropriate for the map it is showing you, or at the scale necessary to view your route if you choose to Zoom Route. There are 10 zoom levels in MileMaker.

Zoom Route

Zooms in or out to accommodate the entire generated route in the active window.

Zoom Region

Brings up the Zoom Region dialog box. On the left, the list box contains regions and states in alphabetical order (the states are listed following the regions). Scroll through the list box and click on your preferred state or region. As you select a state or region, it becomes highlighted on the map. Click on OK, and the map in the active window zooms to your preferred region.

Show Location

Displays the Show Location dialog box, where you can enter a location and display a label for that location on the map. If you have generated a route, you can also click on the Origin or Destination button to display those locations on the map. Check the Open new window box if you wish to display the selected location in a new window. You can also display a mileage/kilometer radius boundary using your selected location as the center (base location). When you check the "Display Map in Radius of:" check box and specify the distance of the radius (number of miles or kilometers) from your base location, the map will display your base location and a radius boundary line.

Undo Zoom

Undo Zoom takes you back to the previous map view.

Compass Rose

Turns the compass on and off. You can click on any of the shaded areas within the compass to scroll the map in that direction. The compass is particularly effective for moving the map diagonally.

Locator Map

Turns the locator map on and off. The locator map is a small map of North America, with a dotted line forming a rectangle. The rectangle shows you the extent of your current map view. You can move about on the map in the active window by dragging the rectangle in the locator map. Additionally, you can reposition the locator map window by clicking on its title bar and dragging, and also resize it by dragging its borders.

Route Markers

Turns the Route Markers window on and off. The route markers are push-pin symbols that you can use to create a route on the map. The green marker designates your desired origin. The red marker symbolizes your intended destination. Use the blue marker to indicate any stopovers you would like to make. Click and drag any of these markers and drop them on your map. Then click on the Calculate button on the toolbar to generate your route.

Scale

Turn the scale bar on and off. The scale shows distances in miles relative to the map in the active window. You may click and drag the scale bars to figure approximate distances between points on the map.

Legend

Turns the legend on and off. The legend tells you what the symbols on the map mean.

Map Elements

Brings up the Display Map Elements dialog box, which lists the items that are shown on MileMaker's maps. By default, all items are selected. You can deselect items to customize the appearance of your maps.

Label

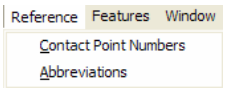
Hide All Labels

Hides all location markers on the current map.

Label Route

Restores the location labels on the current map.

Reference Menu



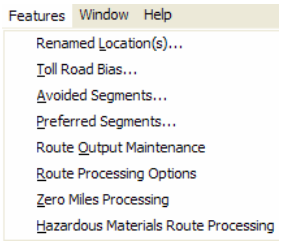
Contact Point Numbers

Lists the phone numbers of MileMaker Technical Support, key contacts at Rand McNally & Company, and other industry contacts.

Abbreviations

Lists abbreviations used in the MileMaker program, including: locations abbreviation, state and province, and military abbreviations.

Features Menu



Renamed Location(s) (Map Option only)

Displays the Renamed Location(s) Browse dialog box, which you can use to save a route list under a user-specified name or to edit or delete an existing Renamed Location.

Toll Road Bias

Displays the Toll Road Bias dialog box, which you can use to alter the amount of toll road usage in Practical Routes.

Avoided Segments (Map Option only)

Displays the Avoided Segments dialog box and provides a list of the highway segments you have requested MileMaker to avoid and allows you to reset avoided highway segments.

Preferred Segments (Map Option only)

Displays the Preferred Segments dialog box and provides a list of the highway segments you have requested MileMaker to prefer and allows you to reset preferred highway segments.

Route Output Maintenance

This feature allows you to instruct the MileMaker program to write an output file in the batch format every time you retrieve a mileage or route. It is designed for use by certain high transaction volume situations. In most cases, you will want to use the **Batch** selection on the File menu to create and execute batch files.

Route Processing Options

Displays the Router Processing Options dialog box.

Green Band Restrictions

This feature allows you to turn MileMaker's default Green Band Restrictions off for Practical Routes.

ZIP Code Processing

This feature allows you to have MileMaker display a default location when a ZIP Code that contains multiple locations is entered. If you do not select this option, MileMaker will display a Browse list of locations when a multiple-location ZIP Code is entered.

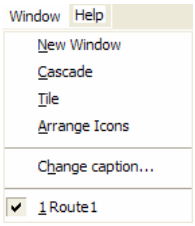
Canadian Borders

This feature allows you to choose to allow MileMaker to traverse the U.S./Canadian border in Practical Route calculations. If you do not select this option, or if an origin and destination are located in the same country, the Practical Route calculation is forced to route in the same country, even if traversing a country border made the route quicker and shorter.

Zero Miles

Displays the Zero Miles Processing dialog box, in which you can specify whether MileMaker should return a zero mileage or an error message when the same location is entered as both the origin and destination in an HHG mileage inquiry.

Window Menu



New Window

Opens a new view of the map in the active window, if optional map graphics are included.

Cascade

Arranges windows by laying them one over another within the active window.

Tile

Arranges windows by stacking them horizontally within the active window.

Arrange Icons

Arranges the minimized windows at the bottom of the Main Application window.

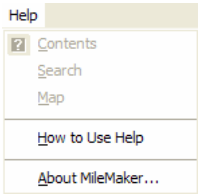
Change Caption

Brings up the Change Caption dialog box in which you may change the caption of the active window.

Current Window

Lists currently open windows. Your active window is designated with a check; click on another name to make another window your active window.

Help Menu



Contents

Calls up the MileMaker Help system with a table of its contents.

Search

Brings up a dialog box in which you may enter a topic and instruct MileMaker to search for that topic in its Help system.

Map (Map Option only)

Describes in detail the information about MileMaker's maps and how to use them.

How to Use Help

Displays instructions and information about the MileMaker Help system.

About MileMaker

Displays MileMaker copyright information.

Toolbar Items

Like other Windows applications, MileMaker's toolbar consists of buttons that provide quick access to frequently used commands and options.

Note: MileMaker displays the name and function of a button when you point to it with the mouse.

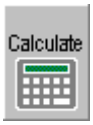
Brings up the standard Print dialog box from which you can print a hard copy of the MileMaker itinerary and/or map .

Brings up the HHG Mileage Inquiry dialog box in which you can retrieve HHG mileages between one location and the next in your route list.

Brings up the HHG Mileage Inquiry dialog box in which you can retrieve HHG mileages between a single origin and multiple destinations. Calculations are performed between the origin and each of the subsequent locations in the route list.

Brings up the Practical Route Inquiry dialog box in which you can retrieve a Practical Route (distance in miles or kilometers). Mileages retrieved in Practical Routes reflect the most time- and fuel-efficient route.

Brings up the Practical Route Inquiry dialog box in which you can retrieve a Practical Route (distance in miles or kilometers), plus the Practical distance (miles or kilometers) traveled in each state along a route.



(Map Option only) Processes a mileage and or route inquiry when you have entered your locations directly on the map.

Erases the route currently displayed on the map and all route and mileage data.

(Map Option only) Zooms in to the next scale level and increases the level of detail in the visible area of the map. There are 10 zoom levels in MileMaker.

(Map Option only) Zooms out to the next scale level and decreases the level of detail in the visible area of the map. There are 10 zoom levels in MileMaker.

(Map Option only) Zooms in or out to display a complete view of the active route.

(Map Option only) Displays the Show Location dialog box, where you can enter a location you wish to label on the map, or label the current origin or destination. You can also use this dialog box to display a user-defined radius boundary line around a specified location.

(Map Option only) Brings up the Batch Processing dialog box, which you can use to process several stored routes at one time.

Activates context-sensitive Help and turns your cursor into a question mark. Drag the question mark over a MileMaker menu item or button, then click to display information from the Help system on that topic.

ABBREVIATIONS

Appendix

C

Appendix Contents

General Abbreviations

General Abbreviations

Name	Abbreviation
Academy	ACAD
Accounting	ACCT
Activity	ACTY
Administration	ADM
Agency	AGCY
Airport	APT
Ammunition	AMMO
Annex	ANX
Armament	ARMT
Army	AR
ARPT	APT
Arsenal	ASNL
Artillery	ARTY
Automotive	AUTO
Auxiliary	AUX
Aviation	AV
Ballistics	BAL
Barracks	BKS
Base	BS
Battalion	BATL
Bayou	BYU
Beach	BCH
Bend	BND
Bluff	BLF
Bluffs	BLFS
Borough	BORO
Bottom	BTM
Bottoms	BTMS

General Abbreviations

Name	Abbreviation
Branch	BRCH
Bridge	BRDG
Brook	BRK
Building	BLDG
Camp	CMP
Center	CTR
Central	CTRL
Centre	CTRE
Chapel	CHPL
Chemical	CHEM
Christian	CHR
Church	CH
Circle	CRC
City	CY
Ciudad	CD
Cliff	CLF
Cliffs	CLFS
College	CLG
Combined	COMB
Command	CMD
Communications	COM
Community	CMTY
Company	CPY
Construction	CSTR
Contract	CONT
Corner	CNR
Corners	CNRS
County	CTY
Court	CRT
Creek	CRK
Crossing	XNG
Crossroad	XRD

General Abbreviations

Name	Abbreviation
Crossroads	XRDS
Dam	DM
Dame	DM
Defense	DEF
Department	DEPT
Depot	DPT
Detachment	DTCH
Development	DEV
Directorate	DIR
District	DIST
Division	DIV
Dunes	DNS
E.	E
East	E
Eastern	EN
Education	EDUC
Electronics	ELEC
Element	EL
Engineer	EGR
Engineering	ENG
Engineers	EGRS
Equipment	EQPT
Estacion	ESTN
Estate	EST
Estates	ESTS
Experimental	EXP
Facility	FACL
Falls	FLS
Farm	FM
Farms	FMS
Ferry	FRY
Field	FLD

General Abbreviations

Name	Abbreviation
Finance	FIN
Flat	FLT
Flats	FLTS
Flight	FLGT
Ford	FRD
Fork	FK
Forks	FKS
Fort	FT
Freight	FRT
Furnace	FRN
Garden	GDN
Gardens	GDNS
Gate	GT
General	GEN
Glen	GLN
Glenn	GLNN
Government	GOVT
Grand	GR
Great	GRT
Ground	GRD
Grounds	GRDS
Group	GRP
Groves	GRVS
Harbor	HBR
Harbour	HBR
Headquarters	HQ
Heights	HTS
Hill	HL
Hills	HLS
Home	HM
Homes	HMS
Hospital	HOSP

General Abbreviations

Name	Abbreviation
House	HSE
Indian	IND
Institute	INST
International	INTL
Island	IS
Junction	JCT
Laboratory	LAB
Lake	LK
Lakes	LKS
Landing	LDG
Left	LF
Lick	LCK
Little	LTL
Location	LOC
Logistics	LOG
Lower	LWR
Maintenance	MANT
Manor	MNR
Marine	MAR
Materials	MTLS
Meadow	MDW
Meadows	MDWS
Medical	MED
Metro	MTRO
Metropolitan	MTRO
Middle	MDL
Mile	MI
Military	MIL
Mill	ML
Mills	MLS
Mines	MNS
Missile	MIS

General Abbreviations

Name	Abbreviation
Mound	MND
Mounds	MNDS
Mount	MT
Mountain	MTN
MT.	MT
MTN.	MTN
Municipal	MUN
N.	N
N.P.	NP
Narrows	NRWS
National	NATL
Naval	NAV
Neck	NK
North	N
Northeast	NE
Northwest	NW
Notre	NR
Nuclear	NUC
Ocean	OC
Office	OFC
Ordinance	ORD
Organizational	ORG
Outlying	OUT
Outport	OPT
Park	PK
Pass	PS
Pathology	PATH
Personnel	PER
Pictorial	PICT
Pines	PNS
Place	PL
Plains	PLNS

General Abbreviations

Name	Abbreviation
Plant	PLT
Plantation	PLTN
Plaza	PLZ
Point	PT
Pointe	PTE
Port	PRT
Portage	PRTG
Preserve	PSRV
Presidio	PRED
Procurement	PROC
Propulsion	PROP
Proving	PRV
PT.	PT
Publication	PUBL
Quarry	QRY
Range	RGE
Rapids	RPDS
Recruiting	RCTG
Recruitment	RCMT
Region	REG
Regional	REGL
Research	RES
Reservation	RSVN
Reserve	RSV
Ridge	RDG
River	RVR
Rivers	RVRS
Riviere	RVRE
Saint	ST
Sainte	STE
Santa	SNTA
School	SCHL

General Abbreviations

Name	Abbreviation
Science	SCI
Seminary	SEM
Services	SERV
Settlement	STL
Shipyard	SHYD
Shopping	SHPG
South	S
Southern	SN
Southwest	SW
Special	SPL
Spring	SPR
Springs	SPRS
Squadron	SQDN
Square	SQ
ST.	ST
Stand	STND
Station	STA
STE.	STE
Stream	STRM
Submarine	SUB
Supply	SUPL
Support	SUP
System	SYST
Tactical	TAC
Technological	TECL
Technology	TECH
Terminal	TRM
Terrace	TRRC
Territory	TERR
Theological	THEL
Theology	THEO
Topography	TOPO

General Abbreviations

Name	Abbreviation
Township	TWP
Trace	TRC
Truck	TRK
Training	TRNG
Transportation	TRNS
U.S.	US
United States of America	US
University	UNIV
Upper	UPR
USA	US
Valle	VAL
Valley	VLY
View	VW
Villa	VLA
Village	VLG
Ville	VIL
Warehouse	WHSE
Warfare	WARF
Water	WTR
Waters	WTRS
Weapons	WPNS
Well	WL
Wells	WLS
West	W
Western	WN
White	WHT
Works	WKS
Yard	YD

State and Province Abbreviations

United States

United States State Abbreviations

Name	Abbreviation
Alabama	AL
Alaska	AK
Arizona	AZ
Arkansas	AR
California	CA
Colorado	CO
Connecticut	CT
Delaware	DE
District of Columbia	DC
Florida	FL
Georgia	GA
Hawaii	HI
Idaho	ID
Illinois	IL
Indiana	IN
Iowa	IA
Kansas	KS
Kentucky	KY
Louisiana	LA
Maine	ME
Maryland	MD
Massachusetts	MA
Michigan	MI
Minnesota	MN
Mississippi	MS
Missouri	MO

United States State Abbreviations

Name	Abbreviation
Montana	MT
Nebraska	NE
Nevada	NV
New Hampshire	NH
New Jersey	NJ
New Mexico	NM
New York	NY
North Carolina	NC
North Dakota	ND
Ohio	OH
Oklahoma	OK
Oregon	OR
Pennsylvania	PA
Rhode Island	RI
South Carolina	SC
South Dakota	SD
Tennessee	TN
Texas	TX
Utah	UT
Vermont	VT
Virginia	VA
Washington	WA
West Virginia	WV
Wisconsin	WI
Wyoming	WY

Puerto Rico

Puerto Rico Abbreviations

Name	Abbreviation
Puerto Rico	PR

Canadian Provinces

Canadian Province Abbreviations

Name	Abbreviation
Alberta	AB
British Columbia	BC
Manitoba	MB
New Brunswick	NB
Newfoundland and Labrador	NF/NL
Nova Scotia	NS
Northwest Territories	NT
Nunavut Territory	NU
Ontario	ON
Prince Edward Island	PE
Quebec	QC
Saskatchewan	SK
Yukon Territory	YT

Mexican States

Mexican States Abbreviations

Name	Abbreviation
Aguascalientes	AG
Baja California	BJ
Baja California Sur	BS
Campeche	CP
Chiapas	CH
Chihuahua	CI
Coahuila de Zargosa	CU
Colima	CL
Distrito Federal	DF
Durango	DG
Estado Mexico	EM
Guanajuato	GJ
Guerrero	GR
Hidalgo	HG
Jalisco	JA
Michoacan	MH
Morelos	MR
Nayarit	NA
Nuevo Leon	NL
Oaxaca	OA
Puebla	PU
Quaretaro	QA
Quintana Roo	QR
San Luis Potosi	SL
Sinaloa	SI
Sonora	SO
Tabasco	TA
Tamaulipas	TM
Tlaxcala	TL

Mexican States Abbreviations

Name	Abbreviation
Veracruz Llave	VL
Yucatan	YC
Zacatecas	ZT

Military Abbreviations

Military Abbreviations

Name	Abbreviation
Air Defense Squadron	ADS
Air Force	AF
Air Force Base	AFB
Air Force Facility	AFF
Air Force Station	AFS
Air National Guard	ANG
Air National Guard Base	ANGB
Air Reserve Base	ARB
Air Reserve Station	ARS
Air Station	AS
Area Maintenance Support Activity	AMSA
Armed Forces	ARMF
Army Air Field	AAF
Army Ammunition Activity	AAA
Army Ammunition Plant	AAP
Army Aviation Support Facility	AASF
Army Depot	AD
Army Engine Plant	AEP
Army Medical Center	AMC
Army Missile Plant	AMP
Army National Guard	ARNG
Army National Guard Training Center	ANGTC
Army National Guard Training Site	ANGTS
Clothing and Textile	C&T
Coast Guard	CG
Coast Guard Air Station	CGAS
Coast Guard Aircraft and Supply Center	CGASC
Coast Guard Base	CGB

Military Abbreviations

Name	Abbreviation
Coast Guard District	CGD
Coast Guard Group	CGG
Coast Guard Integrated Support Command	CGISC
Coast Guard Recruit Training Center	CGRTC
Coast Guard Station	CGS
Coast Guard Support Center	CGSC
Coast Guard Training Center	CGTC
Combat Communications Squadron	CCS
Combined Personal Property Shipping Office	CPPSO
Combined Support Maintenance Shop	CSMS
Consolidated/Containerization	C/C
Construction Battalion Center	CBC
Defense Distribution Depot	DDD
Defense Distribution Region West	DDRW
Defense Energy Office	DEO
Defense Fuel Support Point	DFSP
Defense Mapping Agency	DMA
Defense Subsistence Office	DSO
Defense Subsistence Region	DSR
Directorate of Logistics	DOL
Engineering Division	ED
Fighter Wing	FW
Fleet and Industrial Supply Center	FISC
Fuel Depot	FD
Intra-Fleet Supply Support Operations Team	ISSOT
Joint Personal Property Shipping Office	JPPSO
Major Port Command (or, Medium Port Command)	MPC
Marine Aircraft Group	MAG
Marine Corps	MC
Marine Corps Air Facility	MCAF
Marine Corps Air Station	MCAS
Marine Corps Base	MCB

Military Abbreviations

Name	Abbreviation
Marine Corps District	MCD
Marine Corps Logistics Base	MCLB
Marine Corps Recruiting Depot	MCRD
Marine Corps Recruiting Station	MCRS
Marine Corps Reserve Center	MCRC
Marine Corps Reserve Training Center	MCRTC
Marine Ocean Terminal	MOT
Military Traffic Management Command	MTMC
Mission Support Squadron	MSS
Mobilization and Equipment Training Site	MATES
National Aeronautics Space Administration	NASA
National Naval Medical Center	NNMC
Naval Air Engineering Center	NAEC
Naval Air Engineering Station	NAES
Naval Air Facility	NAF
Naval Air Reserve	NAR
Naval Air Station	NAS
Naval Air Warfare Center	NAWC
Naval Amphibious Base	NAB
Naval Ammunition Depot	NAD
Naval Marine Corps Reserve Center	NMCRC
Naval Marine Corps Reserve Training Center	NMCRPC
Naval Auxiliary Air Station	NAAS
Naval Command Control and Ocean Surveillance Center	NCCOSC
Naval Construction Battalion Center	NCBC
Naval Education Training Center	NETC
Naval Inventory Control Point	NICP
Naval Ordinance Center	NOC
Naval Ordinance Station	NOS
Naval Radio Station	NRS
Naval Recruiting District	NRD

Military Abbreviations

Name	Abbreviation
Naval Regional Medical Center	NRMC
Naval Reserve Center	NRC
Naval Station	NS
Naval Submarine Base	NSB
Naval Supply Center	NSC
Naval Supply Corps School	NSCS
Naval Supply Depot	NSD
Naval Surface Weapons Center	NSWC
Naval Training Center	NTC
Naval Training Station	NTS
Naval Undersea Warfare Center	NUWC
Naval Undersea Warfare Engineering Station	NUWES
Naval Underwater Systems Center	NUSC
Naval Weapons Station	NWS
Naval Weapons Support Center	NWSC
Nuclear Rocket Development Station	NRD
Radar Station	RS
Regional Support Command	RESCOM
Research & Development	R&D
Ship Building Conversion and Repair	SBCR
Ship Conversion and Repair	SCR
Ships Parts Control Center	SPCC
Space and Missile	S&M
Space Flight Center	SFC
Supervisor of Shipbuilding, Conversion and Repair	SSCR
Supply Center	SC
Supply Depot	SD
Tactical Airlift Group	TAG
Tactical Aircraft Wing	TAW
Tactical Wing	TW
Tactical Fighter Group	TFG
Tank Automotive Command	TACOM

Military Abbreviations

Name	Abbreviation
Training Center	TC
Training Site	TS
Troop Support Activity	TSA
Unit Training and Equipment Site	UTES
United States Air Force	USAF
United States Army	USA
United States Army Corps of Engineers	USACE
United States Army Engineering District	USAED
United States Army Reserve Center	USARC
United States Army Reserve Training Facility	USARTF
United States Marine Corps	USMC
United States Navy	USN
United States Property Fiscal Office	USPFO