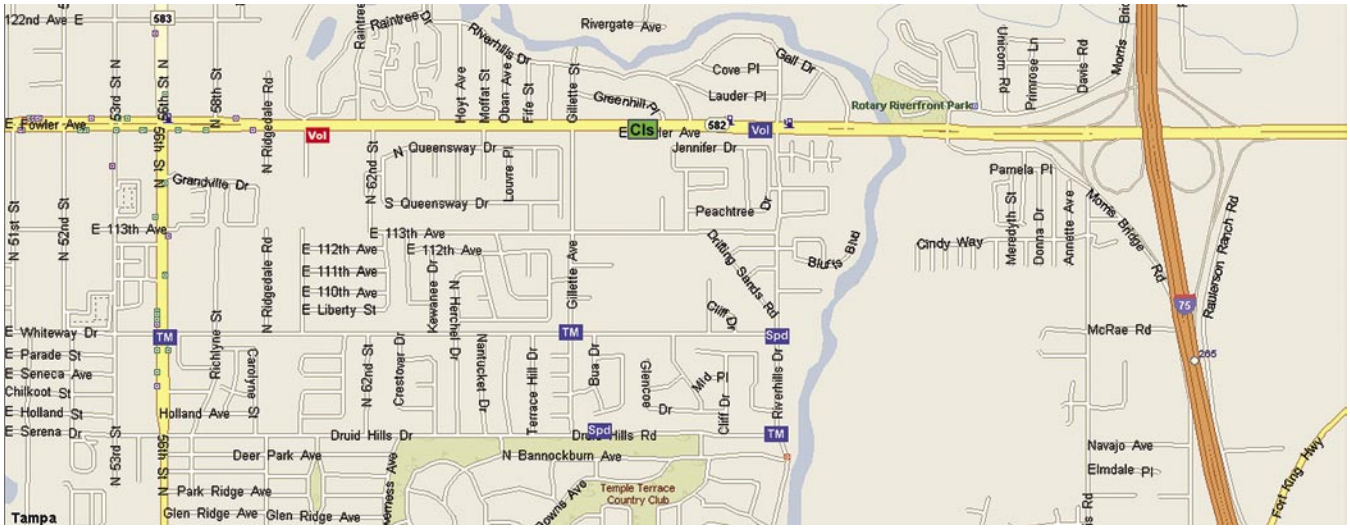
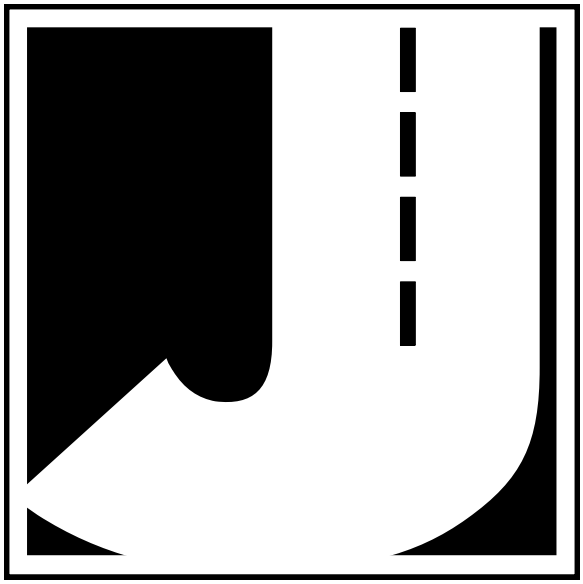
JMap

Mapping Software for Traffic Data





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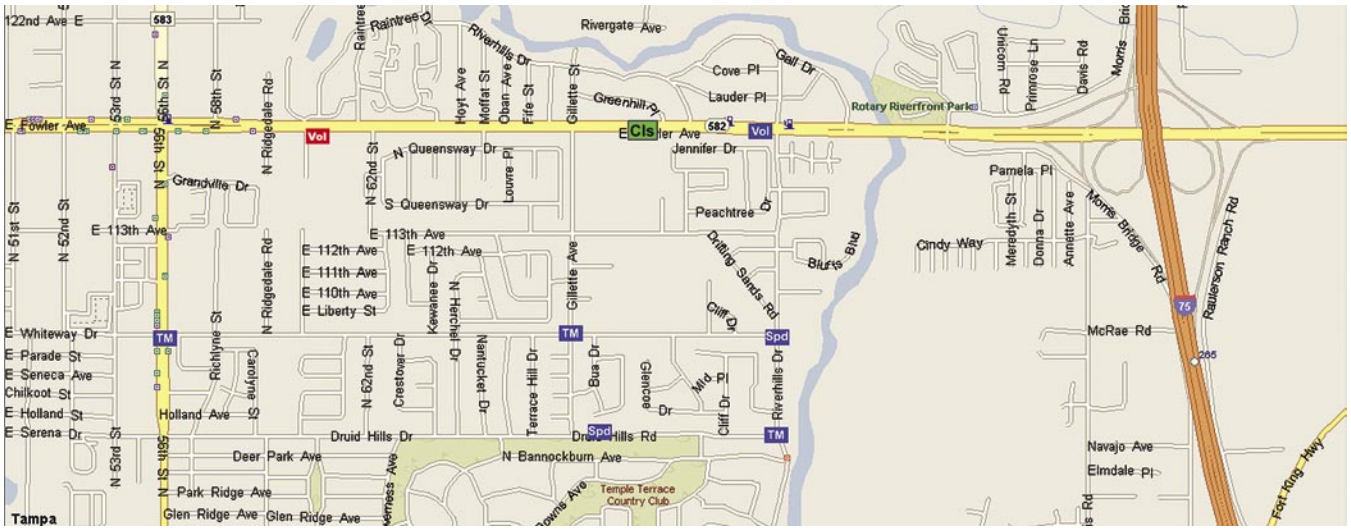


Introduction and Installation

Introduction to JMap

What is JMap?

JMap is software designed to help you organize your traffic studies. With this software, you see a map of your city or county with icons on the map representing traffic studies that have been performed, or are planned to be done, at those locations. These studies can be existing electronic data files from JAMAR software, or they can be studies done on paper, or they can be planned studies for the future. If you move the mouse over an icon you see the details of that study shown next to the map.

For studies that are electronic data files, you can load the study data into the appropriate JAMAR program with a single click of your mouse. For example, if you select a Turning Movement study, then the next screen you see is the PETRAPro edit screen, with the data from the study you picked ready to be edited or printed. When you exit PETRAPro, you return to JMap.

If you would like to get started right away, Chapter 2 of this manual provides an in-depth tutorial on all of the essential aspects of the program needed to start using the software.

Minimum Computer Requirements

- Windows 98 or higher operating system, including NT, ME, 2000 or XP
- Copy of Microsoft MapPoint software installed on computer
- 128 Megabytes of RAM
- 20 Megabytes of free space on your hard disk
- CD-ROM Drive (to install the software only)

Supported Studies

JMap allows you to link to all studies done using the following programs: TRAXPro, PETRAPro, PC-Travel for Windows, PC-Warrants for Windows, PETRA for Windows and WinRAC Plus. You can also create icons for Paper studies and Planned studies.

Software Updates

Updated versions of JAMAR software are released periodically and are posted on the JAMAR web site. Licensed owners of JMap may download updates to the program to make sure they always have the latest version of the software on their computer. To download the latest version of JMap, go to **www.jamartech.com** and then select *Downloads* from the list of options.

Software Support

If you encounter any problems while using the program, or have any questions on specific operations, refer first to this manual and the program's built-in Help system. For up to the minute information on all known issues with the program, refer to the JMap support web page at: **www/jamartech.com/jmapsupport**.

Installing JMap

Important

Important: In order to run, JMap requires that a copy of Microsoft's MapPoint be installed on the computer. If you have not already done so, install MapPoint before proceeding with the installation of JMap.

Begin the installation of JMap by placing the JMap CD into your CD-ROM drive. If your CD drive is configured for Autoplay, the Installation Options program will start after a few seconds. Otherwise, click on the *Start* button on your Windows desktop. Select *Run* from the list of options and type the command line *X:\launch* where X is the letter of your CD-ROM drive. Press OK and you will see the Installation Options for the program.

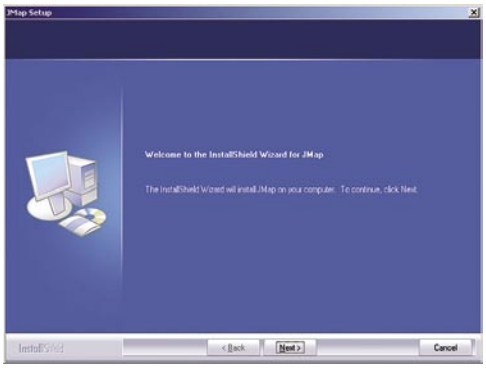


Figure 1-1: Welcome Screen

The **Installation Options** allow you to do a number of things in addition to installing the program. To begin installing the program, click on **Install JMap**.

The *Welcome* screen lets you know that the installation for the program has begun. During the installation, files used by the program will be copied to your computer, including some Windows system files. If other programs are open and using some of the files that need to be installed, an error can occur. Make sure you close any programs that are running before you install this or any Windows-based software. Click *Next* and the License Agreement screen will appear.

Figure 1-2: License Screen

The *License Agreement* screen allows you to review the software license for the program. You must accept the agreement in order to proceed with the installation. If you do not accept the agreement, the program must be returned to JAMAR. If you agree to the license, click *Yes*.

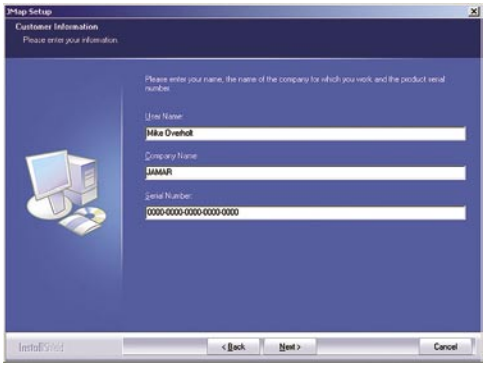


Figure 1-3: Customer Information Screen

The *Customer Information* screen requires you to enter your name, as well as your organization's name. Your serial number, which is located on the back of the CD case, must also be entered. When entering the number be sure to include the dashes. If the serial number is entered incorrectly, you will not be allowed to proceed with the installation. Once the information has been entered, click the *Next* button to continue.

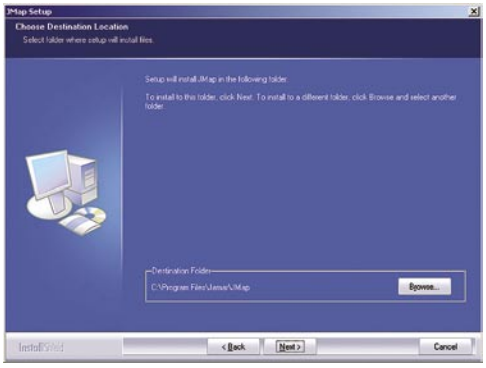


Figure 1-4: Destination Location Screen

The *Choose Destination Location* screen is used to select where the program will be installed. The default location is C:\Program Files\JAMAR\JMap. Once the directory has been set, click *Next*.

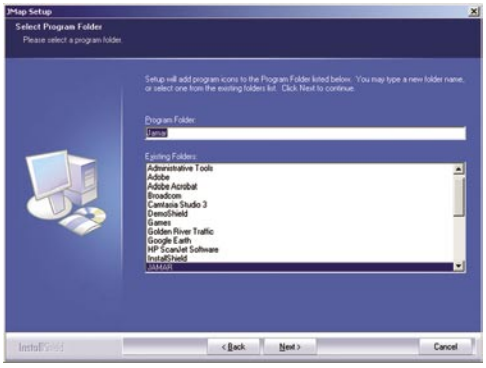


Figure 1-5: Program Folder Screen

The *Select Program Folder* screen is used to name the folder the program is stored in. Click *Next*.

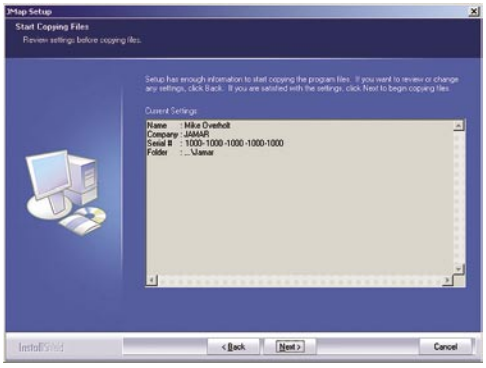


Figure 1-6: Start Copying Files Screen

Once the installation program has enough information to start copying files onto the computer, the *Start Copying Files* screen will appear. You can then review the previous choices you have made and if you would like to change anything before proceeding, use the Back button. Otherwise, click *Next* and the program will be installed.

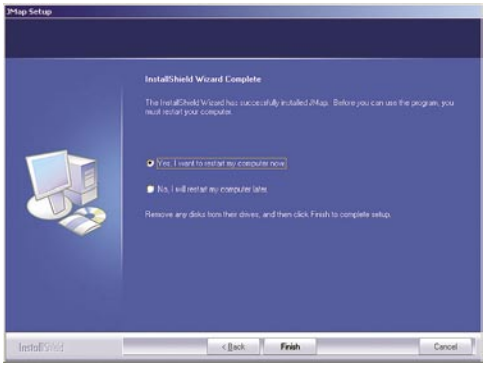


Figure 1-7: Installation Complete Screen

The *InstallShield Wizard Complete* screen will appear after the program files have been copied onto the computer.

You may be prompted to restart your computer at this point. If you are, be sure to restart before attempting to use JMap.

Running JMap

Like most Windows programs, there are several ways you can run the software. Here are two:

1– Open an Explorer window (right click on My Computer and select Explore) and find the JMap.exe file, which is probably in the *C:\Program Files\JAMAR\JMap* folder. Double click on the file **JMap.exe** and the program will run.

2 – Select **Start**, **Programs**, and then **JAMAR** from the list of installed programs. Choose **JMap** from the list, then choose **JMap** again to run the program.

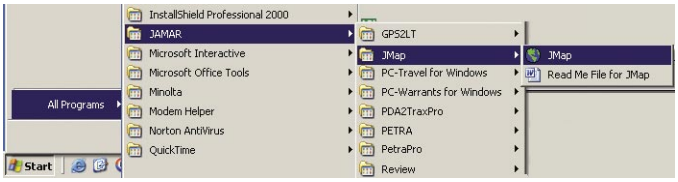
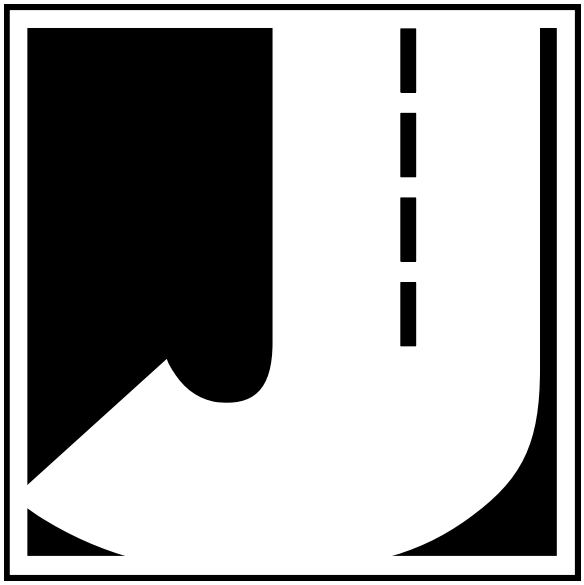
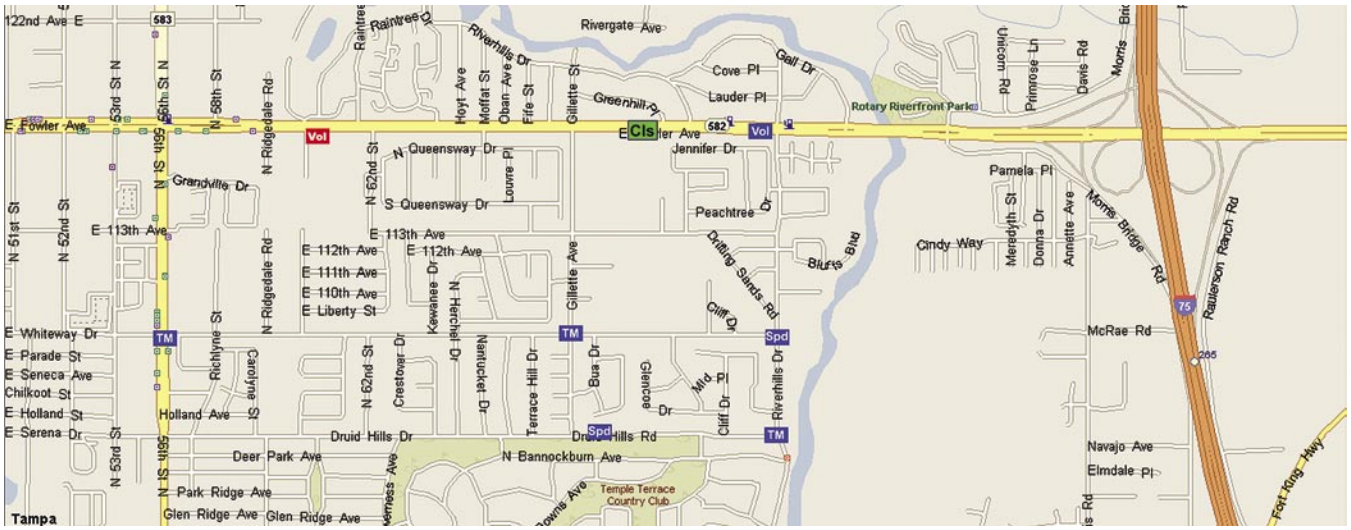


Figure 1-8: Start-up Selection



Chapter 2



Learning the Basics of JMap

Learning the Basics of JMap

This chapter covers all of the essentials needed to begin using JMap. This information is presented in a tutorial style so you can follow along on your computer as each aspect is covered. Once you have completed these lessons, you should have a good working knowledge of JMap.

Lesson 1 — Setting Your Preferences

The first time anyone runs JMap after installing it, the software loads the **Preferences** screens so that the various settings can be checked and edited. From then on, the program starts with the Main screen. This tutorial will start with the Preferences screen, assuming you just installed it.

To start the program, click the Windows *Start* button, select *Programs*, then *JAMAR*, the *JMap*. The first screen you will see is a message box that tells you that since this is the first time you have run JMap, you need to check the settings. Just click Ok. This will bring up the Preferences screen.

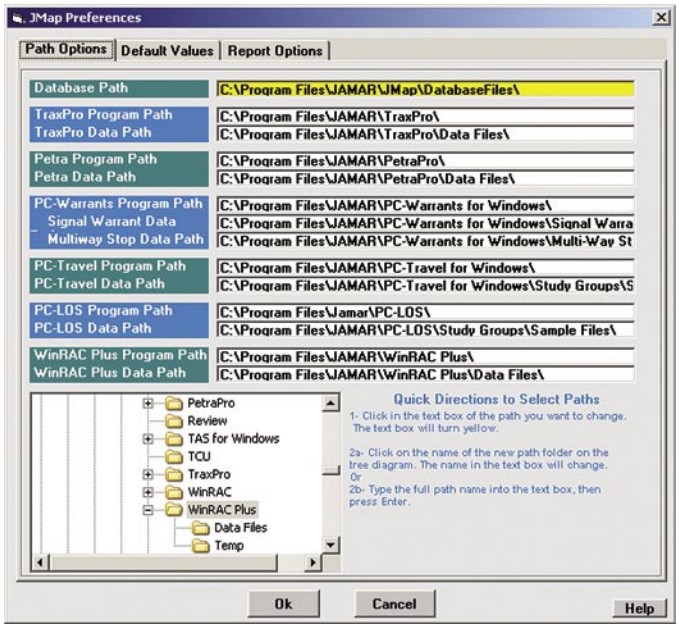


Figure 2-1: Preferences: Path Options

The Preferences screen has three sub-screens, selected by clicking on the tabs at the top of the window: Path Options, Default Values, and Report Options.

The **Path Options** tab is shown first. This screen is used to set the default paths used for the various programs that can be tied into JMap.

Since you probably don't have all of the JAMAR programs listed you may have *???* in some of the lines. In filling out the path information on this screen, JMap checks your computer for the default folder locations used by the different JAMAR programs. These default paths are *C:\Program Files\Jamar\XXXXX*, where XXXXX is the name of the JAMAR program. If you have installed your JAMAR programs in some location other than the default path, then you will have to manually edit the paths on this screen so that JMap knows where to find your programs.

To edit a path, click on the path you want to edit and it will be highlighted in yellow. You can then either manually type in the new path, or use the folder tree at the lower left of the screen to navigate to, and select, the new path.

Once everything looks okay on this screen, click on the Default Values tab at the top of the screen.

The **Default Values** tab is used to set some of the options of the program. There are two sections in this screen: Default Map Attributes and Enabled Study Types.

The *Default Map Attributes* field has settings that affect the map in the program. The first three settings in this field control the Icon Overlap feature in JMap. This feature tells the program how to act when you have icons for different studies very close to each other, or on top of each other.

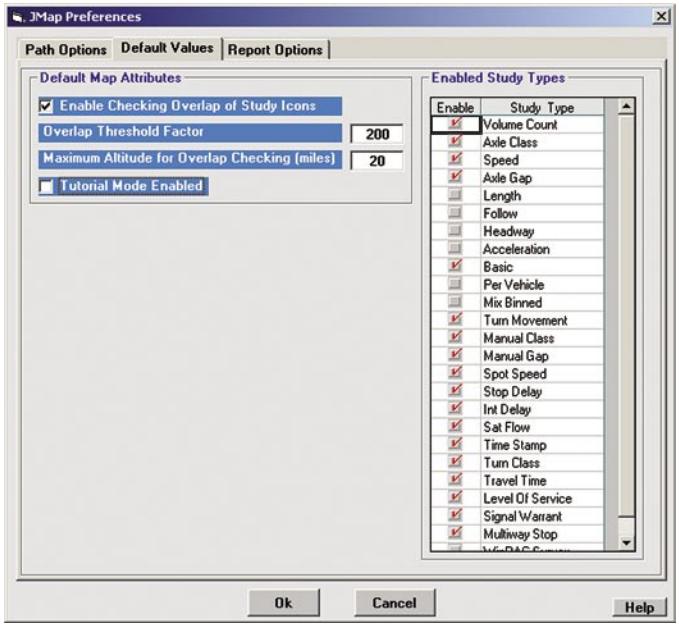


Figure 2-2: Preferences: Default Values

You can enable or disable the feature using the first check box. When enabled, this feature will replace icons that overlap each other (or are very close to each other) with a generic pink Plus (+) icon. We suggest you leave this feature enabled unless you find it too distracting to you.

The second selection, Overlap Threshold Factor, is a number computed by the software to tell if one icon is close to another icon on the map. The smaller the number, the closer the icons have to be to each other before the icons are replaced with the pink icon. You probably won't have to adjust this setting.

The third selection, Maximum Altitude for Overlap Checking, is a setting that tells the software not to check for overlapping icons when zoomed out to a certain distance on the map since basically all icons at this altitude will be overlapping. You probably won't have to adjust this setting.

The last setting in this field is Tutorial Mode Enabled. JMap has a special Tutorial Mode to simplify learning the software. When this mode is enabled, the software uses a prepared set of maps and traffic studies that were installed when the rest of the program was installed. Note: The remainder of this tutorial will walk you though the tutorial mode of the program, so place a check in this box so you can follow along as we go.

The *Enabled Study Types* field allows you to select the types of studies you can use with JMap. JMap currently supports 25 different studies from six JAMAR software programs. You probably don't have all six programs, and you may not ever use all of the studies supported by the different programs you do have. This section allows you to set which studies you want JMap to support. The settings on this screen are used in other parts of the software to show you only the studies that you want to see.

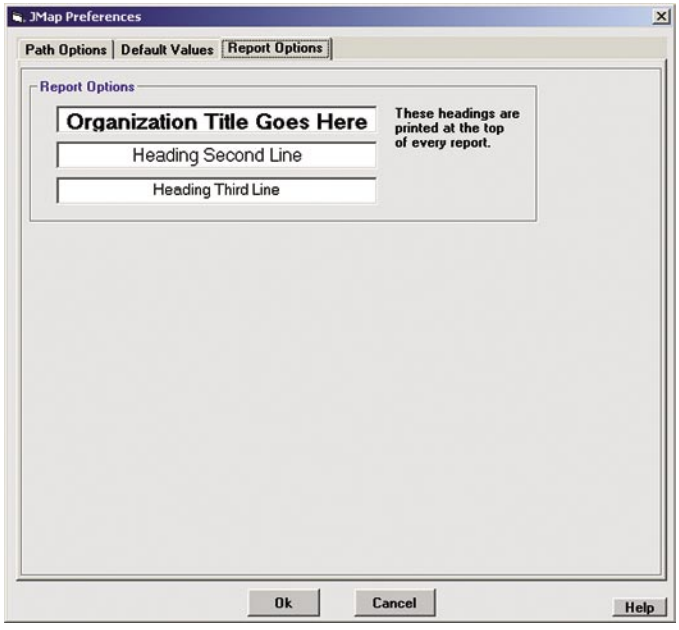


Figure 2-3: Preferences: Report Options

Go through the list and check the studies you are likely to want to see on the map. If you aren't sure about a particular study type you can turns it on now and edit the list any time in the future.

When you are happy with the settings on this screen, click on the Report Options tab at the top of the screen.

The **Report Options** tab is used to set the headings for any reports you produce.

The three lines shown are printed on the top of every report page. You can put whatever you want in these three lines.

You can also leave one or more lines blank if you wish. Some common uses for the headings are organization name, address, phone number, e-mail address or web site address.

Once the headings have been set, click the OK button. The program takes you back to the main map screen, showing the tutorial map since we turned on Tutorial Mode earlier in this lesson.

Coffee Break

Congratulations! You have completed the first lesson. In this lesson you learned how to set the preferences for the program. In the next lesson you'll learn the basics of moving around on the map screen. You can take a break now, or jump right into the next lesson.

Lesson 2 — Getting Familiar with the Main Screen

In this lesson, your learn how to move around on the map and get familiar with some of the controls. This lesson assumes you have the program set to run in Tutorial Mode. If not, set this in the Default Values tab of the Preferences, as described in Lesson 1.

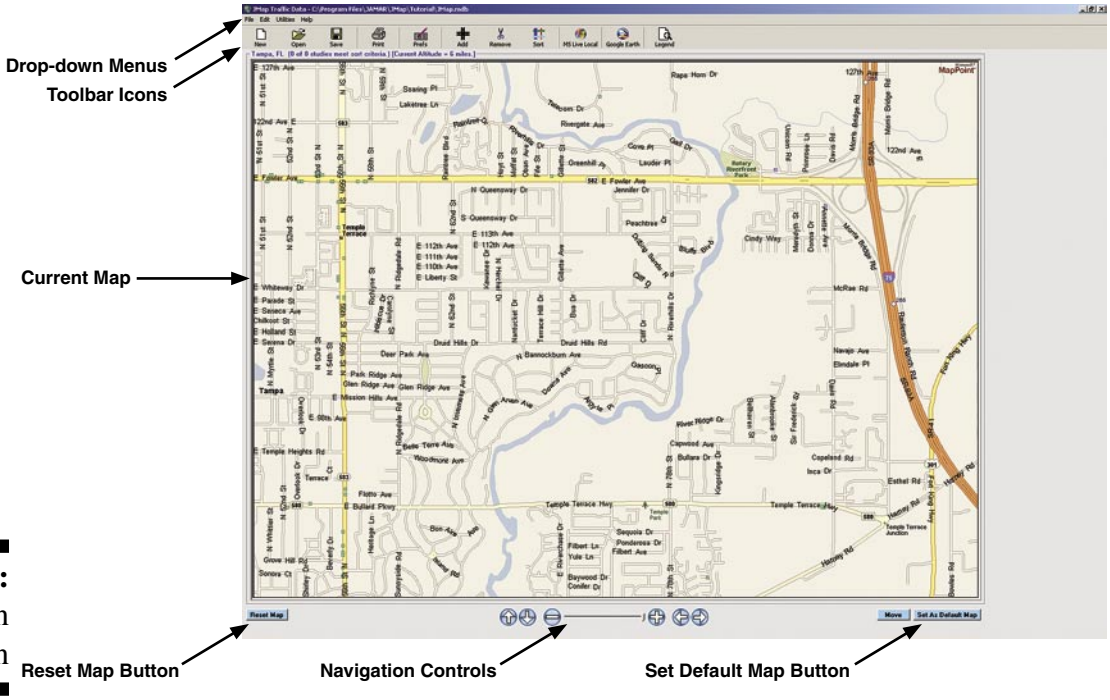


Figure 2-4: Main Screen

The figure above shows the main screen of JMap. It has several sections which will be described as you progress in the tutorial.

Note

Note: Your screen may look a little different. All of the screen shots in this tutorial were done on a computer set to 1600 x 1200 pixels. If your computer is set to a lower or higher video resolution then the map area will be a little different. The higher the resolution you have, the larger the percentage of the screen used by the map.

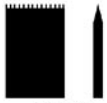
The screen has the standard Windows (and JAMAR software) look, with drop down menus at the top of the screen and a series of toolbar icons that act as shortcuts to the most commonly used operations. The main part of the screen shows the map, with the Study Details window on the right side (not shown above), and the buttons used to control the map operation.

This map shows the area around Temple Terrace, FL., a small city just outside of Tampa on the west coast of the state. This view of the map shows all of the city. We are going to assume that all of the traffic studies to be placed on the map will be visible on this view. This view is the Default View.

Now is a good time to learn a little bit about moving around the map. The navigation controls at the bottom middle of the screen allow you to zoom in and out on the map (the + and - buttons) and move the map left, right, up or down (arrow buttons).

There are also two other ways to navigate around the map, JMap Mode and MapPoint Mode.

JMap Mode is a simple way to navigate around the map using the right click button on your mouse to set the center of the map. Move the cursor to any point on the screen and click the right click button on your mouse. The map will center on this point. Move the mouse and click a few times to get familiar with how this works. With just a little practice you will soon learn to move around the map very easily.



Note that if your mouse has a scroll button, it can also be used to zoom in and out of the map.

Once you are familiar with moving around the screen and zooming in and out, click the *Reset Map* button in the lower left corner. Notice that the map resets itself to the spot where we started. This is a handy way reposition yourself on the map after moving around. We'll learn more about this option a little later in this tutorial.

The other method for navigating the map is **MapPoint Mode.** This method is an alternate way to navigate around the map that you might prefer, especially if you are familiar with MapPoint or Streets & Trips software from Microsoft. It is enabled by pressing and holding the Alt key on your keyboard. You then can navigate around the map using the built-in navigation routines of MapPoint, which is the mapping engine used in JMap.

Hold the Alt key down, then click a spot on the map and hold the mouse button down. Move the mouse and you will see a rectangle created. When you let go of the mouse button you get a message that says Click to Zoom. Continue to hold down the Alt key and click the mouse button inside in the rectangle. JMap takes the area inside the rectangle and has it fill the entire map area.

Try this out a few times to get a feel for it. You probably have done similar operations with other software that uses maps. You can zoom in until you are only seeing one or two roads. Note that the closest you can zoom in is an altitude of 1 mile.

Next, hold the Alt key down and press the center button of your mouse, if it has one. The cursor changes to a hand symbol. Drag the hand and notice the map moves in the direction the hand is moving. This is another way to move the map.

Now, hold the Alt key down and move the cursor to any edge of the map. The cursor changes to an arrow. Click the left mouse button and the map will scroll in the direction the arrow is pointing. This is yet another way to move the map.

Navigate around the map until you are comfortable with how you can control the view of the map. Using either the navigation controls, JMap mode or MapPoint mode to navigate the map is a matter of personal preference. Use whichever you are most comfortable with, or a combination of the three.

Once you are comfortable with moving around the map, click the *Reset Map* button to restore the map to the default view.

Congratulations! You have completed the second lesson. In this lesson you learned the basics of moving around on the map. In the next lesson you'll learn how to add, move and remove studies on the map screen. You can take a break now, or jump right into the next lesson.

Lesson 3 — Adding, Moving & Removing Studies on the Map

The current map doesn't have any studies on it yet. We need to add some studies to continue the tutorial. Click the **Add** icon on the toolbar at the top of the screen. The **Select Study to Add** window pops up and the map area reduces to accommodate the window.

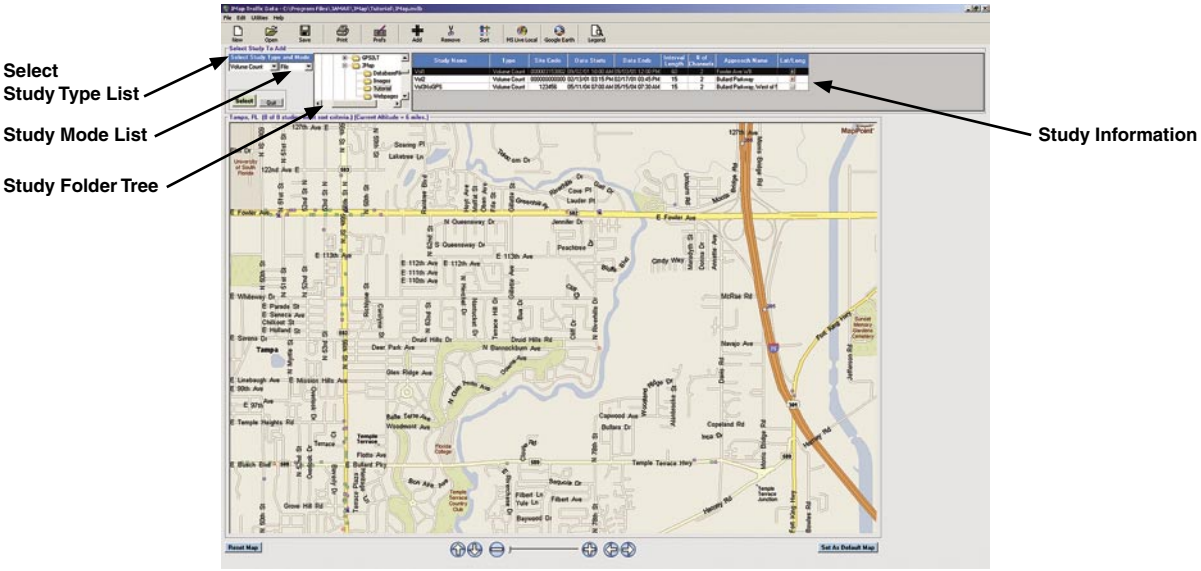


Figure 2-5: Select Study To Add

The purpose of the Add Study window is to allow you to place a study icon on the map. This requires essentially five steps:

1 – Pick the type of study you want to add.
2 – Pick the study mode - file, planned, paper or Excel.
3 – Navigate to the folder on your computer where the study is stored (*File & Excel mode*).
4 – Pick the study from the list of studies. (*File & Excel Mode*)
5 – Place the study on the map at the proper location.

You'll get a good sense of how this is done in JMap in the next couple of minutes.

The *Select Study Type* list in the upper left corner shows a list of studies supported by JMap that have been enabled in the Preferences settings. (Refer to Lesson 1 for more details on how this is done.) Since this list defaults to Volume Count you don't have to do anything right now. JMap knows that Volume Counts are TRAXPro files, and TRAXPro files are currently located in the Tutorial folder. This folder is selected in the Study Folder Tree.

Note: The Preferences screen has a section where you can tell the software where to find the data files for TRAXPro, PETRAPro, PC-Warrants, PC-Travel, PC-LOS, & WinRAC Plus if you have them installed. When JMap is in Tutorial Mode, these settings are automatically set to the Tutorial folder.

Next to the Select Study Type list is another drop down list labeled *Mode*. JMap supports four different modes of studies:

File: These are studies that are JAMAR data files stored on your computer or network.

Planned: These are studies that haven't been done yet, but are planned to be done sometime in the future. There are no data files for these yet, but you can mark the location of these planned studies to help your scheduling efforts.

Paper: These are studies that have been done but are not in a format JMap supports (non-Jamar files), or they exist only as printouts in a file cabinet somewhere. You can add some information about these files to your database and include information about how to find them, if necessary.

Excel: These are studies stored as Excel spreadsheet files on your computer or network.

In the first part of this tutorial we will only deal with the first study mode - File mode. Since this is the default you don't have to worry about the setting in this tutorial.

First, we will add two Volume Count studies.

Adding Files Automatically

The *Study Information* section shows some of the parameters of the studies that match the study type list selection (in this case, Volume Counts) that are in the folder selected in the Folder Tree. In our case, there are three volume counts. We want to add two of them to the map. The **Vol1** study is highlighted, and since this is one of the studies we want to add, we are all set.

Click on the *Select* button. If you look closely on the map, you'll see a blue icon near the top middle of the map. It is labeled Vol. The *Vol* means this is a Volume count. On the line just above the map you will see **Tampa, FL (1 of 1 studies meet sort criteria)**. This tells you that one study has been added to the database.

How did JMap know where to place the icon? Because the latitude and longitude information needed is in the header of the Vol1 data file. All JAMAR data file formats include latitude and longitude information. Normally these fields are blank, but to make this tutorial simpler, most of the data files used in the tutorial are geocoded with the appropriate latitude and longitude information. Since the file had GPS coordinates, JMap added it automatically to the right spot on the map.

Next we want to add another volume study. Click on the **Vol2** study in the Study Information window so it is highlighted, then click on the *Select* button. Another study is automatically added to the map.

That takes care of the volume studies for now. Next we'll add a couple Axle Class studies. Click on the down arrow next to the Select Study Type window and select **Axle Class**. Notice that the Study Information changes to show the two axle class studies, Class1 and Class2, in the Tutorial folder. The **Class1** study is highlighted. Click on *Select* and this study is added to the map. Once Class1 is added to the map, click on **Class2** in the Study Information field so it is highlighted, then click *Select*.

There now are four icons on the map and four studies in the database.

Follow the same procedure to add the following studies in the following order:

Type	Name
Speed	Speed1
Speed	Speed2
Turn Movement	Turn1
Turn Movement	Turn2
Turn Movement	Turn3
Signal Warrant	Warrant1
Signal Warrant	Warrant2
Signal Warrant	Warrant3

When you are done, click the *Quit* button in the Add Study window, then click the *Reset Map* button. You should have 12 studies on the map and it should look similar to the figure below.

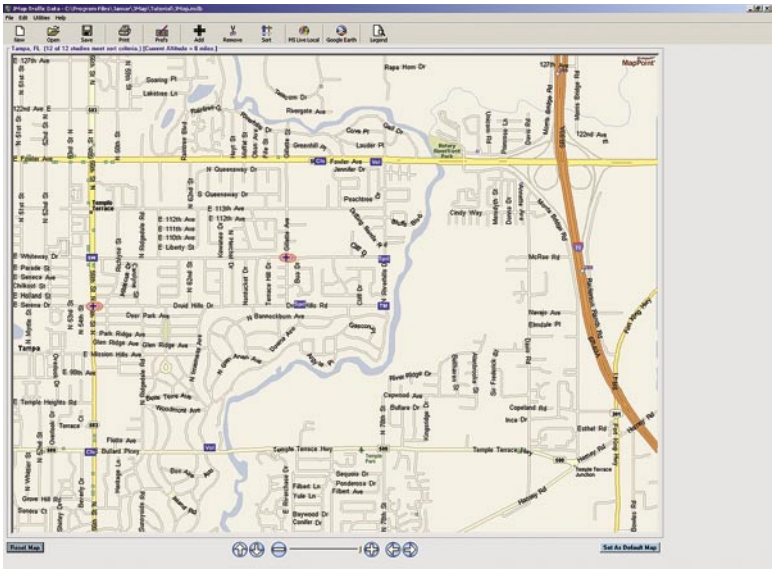


Figure 2-6: Map with Studies Added

Notice that a couple of spots on the map have pink icons with a + sign. This signifies that there are two or more icons at that location. This is common since you may do more than one type of study at a given location, or do similar studies in different years.

If you zoom down to those locations the icons will separate and you will be able to see the individual studies at that location.

Adding Files Manually

Now let's add a study that doesn't have the latitude and longitude information in the file, since this is more like what you will have to do when you create your own database.

Click the *Add* button again, then click on the down arrow next to the Select Study Type window and select Volume Count from the list if it isn't selected already. The Study Information window shows three studies, Vol1, Vol2 & Vol3NoGPS. We have already added the Vol1 and Vol2 studies. Click on the Vol3NoGPS line to highlight it. Notice that the Approach Name is Bullard Parkway, West of 56th St. You may have to scroll the window to the right to see the name.

Using the techniques shown earlier, zoom in on the area near the bottom of the screen. Try to make it match the screen shown in the figure below. This is where we want to place the study.

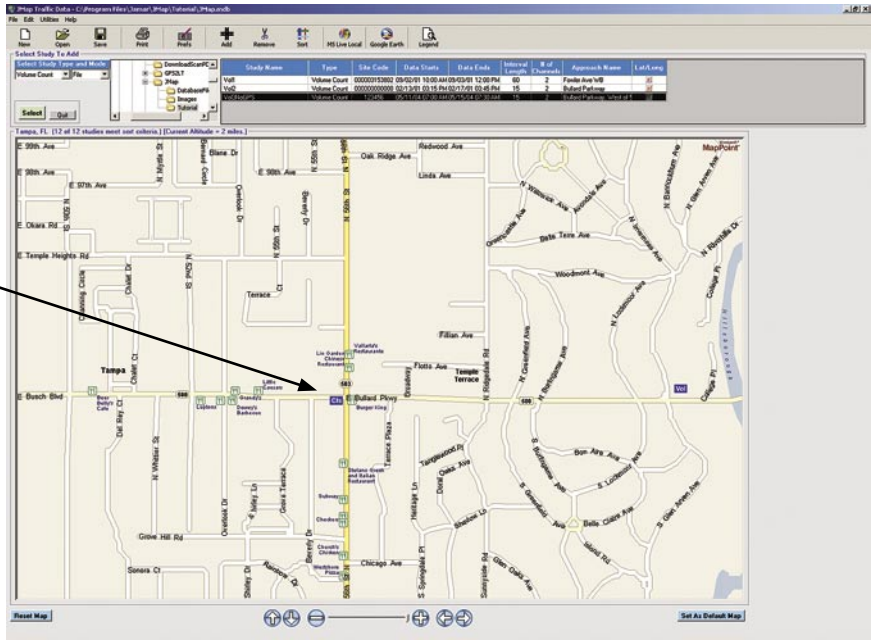


Figure 2-7: Add File without GPS

Click Select. Notice that the icon was not automatically added to the map, but rather the cursor has changed to a crosshair (+). Move the cursor to the point shown in figure 2-7 and click the mouse. This manually places the study at that point. You can see the Vol icon there now. That's all it takes to manually add a study that doesn't have the latitude and longitude info in the data file.

Note that once you manually add a study that does not have GPS coordinates to the map, JMap automatically adds the GPS data to your file, based on where you placed it on the map. This GPS data is then saved in the file and will appear in other JAMAR programs. This provides you with an easy way to retrofit all your old non-GPS files with GPS data.

Moving a Study

There may be times when you manually add an icon to JMap and realize it isn't in quite the right place and needs to be moved. This is easy to do. To see how it is done, zoom in closer to the icon you just placed, then click on it.

When the icon is selected, it is highlighted in green. Click the *Move* button at the bottom right of the screen and the cursor changes to a crosshair (+). Move the mouse over a bit, then click the mouse and the icon moves to the new location. The database is updated with the new latitude and longitude information and the JAMAR data file is updated as well.

You often will move icons after you add a study to the map. You will typically zoom in to a view that clearly shows the location of the study and then add the study to the map. Then you'll zoom in very close and move the icon to the exact spot you want.

Removing a Study

Occasionally it may be necessary to remove a study from the database. This is easy to do, but you need to be careful because once you remove it you will have to use the Add routine we just described to bring it back.

For this tutorial, we'll delete the study we just added in, Vol3NoGPS.

Click on the Vol icon we just added and it will highlight in green. Next, make sure it is the correct study by checking the Study Details window shown at the upper the right of the map. (We'll learn more about the Study Details window in the next lesson.)

When you are sure you have picked the proper study, click the *Remove* button on the toolbar at the top of the screen. The study icon disappears from the map, and the software deletes the study record from the database. That's all there is to it - select any study icon then click on the Remove button and it's gone.

Once done, click on the Reset Map button to restore the map to the full view.

Congratulations! You have completed lesson three. In this lesson you learned how to add, move and remove studies on the map screen. In the next lesson you'll learn about using the Study Details window for files. You can take a break now, or jump right into the next lesson.

Lesson 4 — Using the Study Details Window

In the last lesson we briefly used the **Study Details** window, located at the upper right of the screen. This window has two primary functions:

1 – It shows the information that is stored in the database for the selected study.
2 – It shows a button to let you run the JAMAR program for that study type.

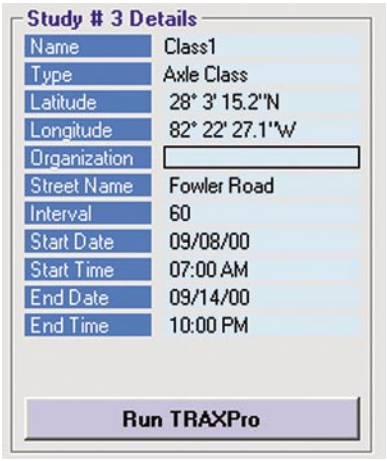


Figure 2-8: Study Details

The information shown in the Study Details window varies a little for each study type. Click on the **Cls** icon located near the top center of the map and notice that the Study Details change to reflect the information in this file.

Select various icons on the map and see how the details vary.

All of the studies have several items in common:

- Name of the study
- Latitude and longitude
- Study Type
- Starting Date & Time

Each study may also have one or more unique items shown. For example, Signal Warrants show whether or not the warrant was met in this study.

Note: It is important to understand that the information available to show on the Study Details window must be available in the header of the study so that it can be made part of the database. If there is a parameter that would be useful to see in JMap, but that parameter isn't in the header of the study file, then the parent program (PETRAPro, TRAXPro, etc.) must be changed to calculate and store that parameter. If there is a value you would like to see displayed, let us know.

Notice that one of the fields, *Organization*, has a box around it. Double click on this box and you'll see the Organization Data window appear.

This field allows you to assign an organizational value to each of the studies you added to JMap. For example, if you are a consulting firm and you collect data for many other people, you may want to use this field to enter the name of the organization that the data is for. Or, if all the data you collect is for your own use, you many want to use this field to organize which specific field technician collected the data in question.

In essence, the Organization field can be used in any way you want to help you better understand the data you see on your map. Up to 32 characters can be used when entering a value for this field.

Running Programs from JMap

One of the primary uses for JMap is to easily load data studies into the various JAMAR programs you have on your computer. This is simple to do using the Study Details window.

Below the specific file information listed in the Study Details window, there is a button to load that study into the appropriate JAMAR program. Once you click the button, the next screen you see is the JAMAR program with the data already loaded and ready to view, edit, or print. When you are through with the JAMAR program and close it, you return to JMap. This process is simpler than just using the normal procedures to load a study.

Give this a try by selecting the icon of a study from a program that you own, such as TM if you own PETRAPro; Vol, Spd or Cls if you own TRAXPro; or SW if you own PC-Warrants. Once the icon is selected, click the *Run* button for that program in the Study Details window. The program for the study you selected will then start, with the study you selected already loaded. Close the program and you'll be taken back to JMap.

This process allows you to quickly and easily access your data for a variety of programs. JMap, if it didn't do anything else, would be very useful as a front-end to your JAMAR software. In fact, this will probably be the primary use for many customers.

Congratulations! You have completed lesson four. In this lesson you learned about using the Study Details window. In the next lesson you'll learn about adding Planned, Paper and Excel studies to the map. You can take a break now, or jump right into the next lesson.

Lesson 5 — Adding Planned, Paper and Excel Studies

JMap supports four modes of studies: File, Planned, Paper and Excel. Earlier in this tutorial we dealt with the File mode. This lesson will explain the other three.

Working with Planned Studies

Planned studies are studies that haven't been done yet, but are planned to be done sometime in the future. There are no data files for these yet, but you can mark the location of these planned studies to help your scheduling efforts.

For this lesson, we'll add a planned Signal Warrant study at the intersection of Druid Hills Dr. and N. Ridgedale Rd. Adding a Planned Study is identical to the procedure of manually adding a study that we covered in Lesson 3.

First, zoom in on the map so you can easily see the intersection of Druid Hills Dr. and N. Ridgedale Rd. (If you're not sure of the location, use the image in the figure below as a guide.)

Next, click on the **Add** icon on the Toolbar at the top of the screen. This pops up the Select Study to Add window. Select *Signal Warrant* from the Study Type list and then *Planned* from the Study Mode list. Note that since there are no associated files with a Planned study, the Study Information window disappears.

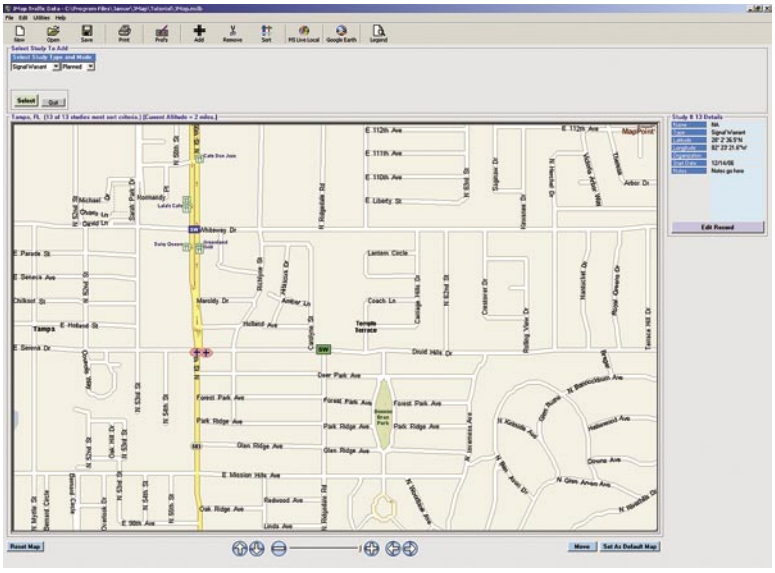


Figure 2-9: Planned Study Added

Now, click the **Select** button and the cursor changes to a crosshair (+). Click on the map at the intersection of Druid Hills Dr. and N. Ridgedale Rd. and a white icon is displayed at the spot you clicked. Click on the icon to select it and it will be highlighted green. On the right side of the map you will see the Study Details for this planned study.

Your screen should now be similar to the one shown in figure 2-9.

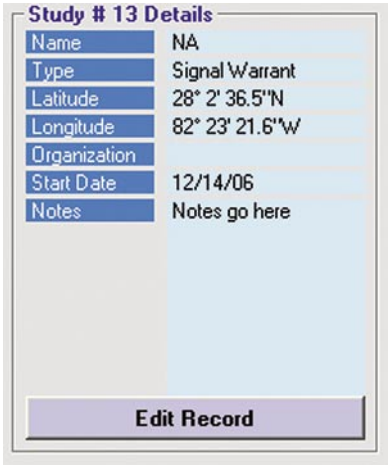


Figure 2-10: Planned Study Details

To the right of the map is the Study Details window. Since the icon was just added to the map, the values shown are the default ones. You can see the Type is set to Signal Warrant and the Latitude and Longitude fields are filled in. The Start Date is set to today's date.

Click on the *Edit Record* button. This brings up the Edit Planned Study Details screen.

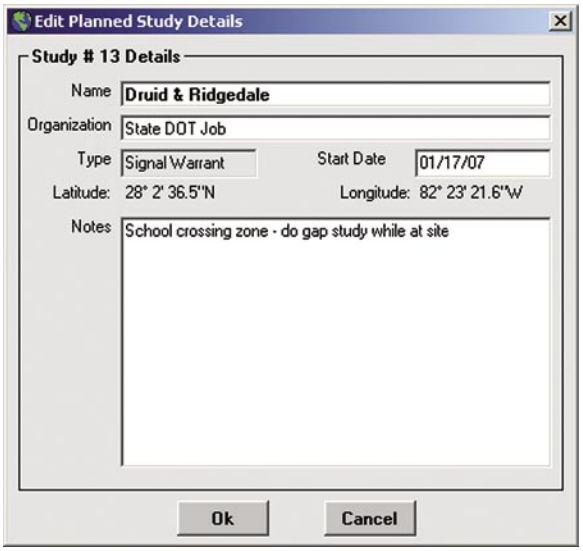


Figure 2-11: Edit Planned Study Details

You can edit all of the fields with a white background. In this case you can put the names of the streets (Druid & Ridgedale) in the *Name* field. The *Date* we will schedule for January 17, 2007. In the *Notes* section we can put whatever notes we want. In this case the notes will tell us that we need to schedule a Gap study at this location as well since it is a school crossing zone and gap data is required for that warrant.

Click on Ok once you are through editing the parameters.

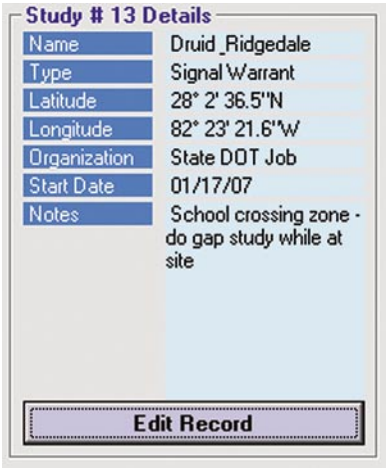


Figure 2-12: Edited Planned Study Details

JMap stores the values in the fields in the database and updates the Study Details window on the screen, as shown here.

You can use this feature of JMap to help schedule your data collection activities for the next year or so.

Some users will really like this feature and use it a lot, while others will only use the map to show studies that have already been done. That's fine. The choice is yours.

Working with Paper Studies

Paper studies are studies that have been done but either exist only as printouts in a file cabinet somewhere, or are not in a format JMap supports (non-JAMAR files). You can add some information about these files to your database and include information about where to locate these studies, if necessary.

For example, suppose you used a brand of traffic counter other than JAMAR for several years before realizing the error of your ways. You may have quite a few volume, speed, or axle class data files not in the JAMAR format, but still want to show these studies on your map so that you can find the data if you need it. You also may have printouts of studies that don't exist as computer files. You may want to show these studies as well. This is the reason for Paper Studies in JMap.

Note

Note: JMap can't support other vendor's traffic data files the same way it supports JAMAR's because it has to be able to access the header of the data files to read values such as starting time, study type, etc. It also has to be able to add the latitude and longitude information to the data file once you place it on the map. JMap can only do this with JAMAR files.

Adding a Paper Study is identical to the process of adding a planned study that we covered earlier in this lesson, with the exception that you select *Paper* as the Study Mode rather than *Planned*. Use this process to add a Volume Count paper study at the intersection of Whiteway and 62nd St. Refer back to the steps on page 2.11 if you need help.

Once the study is added, you should see a screen similar to the one below.

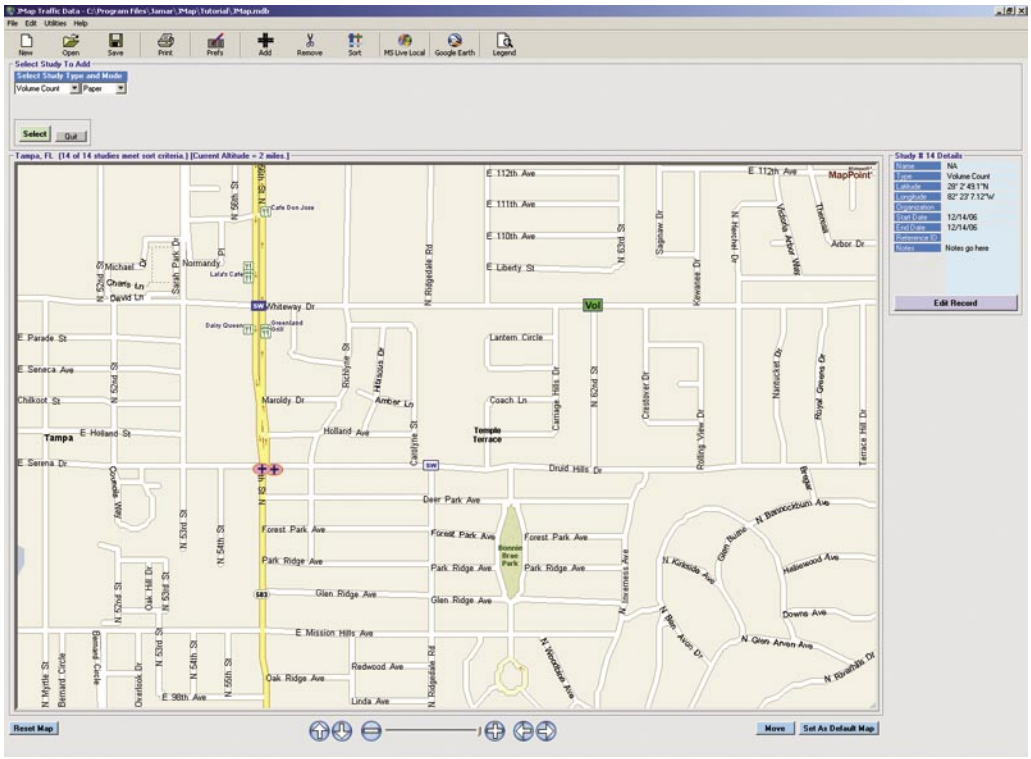


Figure 2-13: Paper Study Added

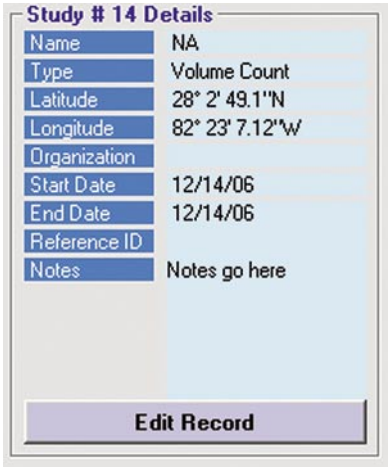


Figure 2-14: Paper Study Details

Shown here is the Study Details window for the volume count we just added to the map. Since the icon was just added to the map the values shown are the default values used. You can see the *Type* is set to Volume Count and the Latitude and Longitude fields are filled in. The Start Date and End Date End Date is set to today's date.

Like Planned studies, you click on the Edit Record button to edit the values shown on this screen. The Paper study details work essentially the same as the Planned ones, so we won't bother to go through them again. Note, however, that Paper studies have one extra field, called Reference ID.

The *Reference ID* is some way for you to find the data for this study. It may be a data file name (non-JAMAR) on your computer somewhere, or it could be the name of a file in a filing cabinet in your office. If you plan to use this feature, you may want to come up with a system to match the Reference ID value you put in here to the physical location of the data.

Working with Excel Files

The fourth mode of study is **Excel**. These are existing data files that have been saved in the Excel spreadsheet format.

Click the Add button, then select *Excel* from the Study Type list. You should then see a listing for the Excel Sample file that was included as part of the tutorial. This file contains classification data, so select Axle Class from the Study Type list. Once that is set, click the Select button and add the icon near the intersection of N. Ridgedale Rd. and Whiteway Dr.

Once the study is added, you should see a screen similar to the one below.

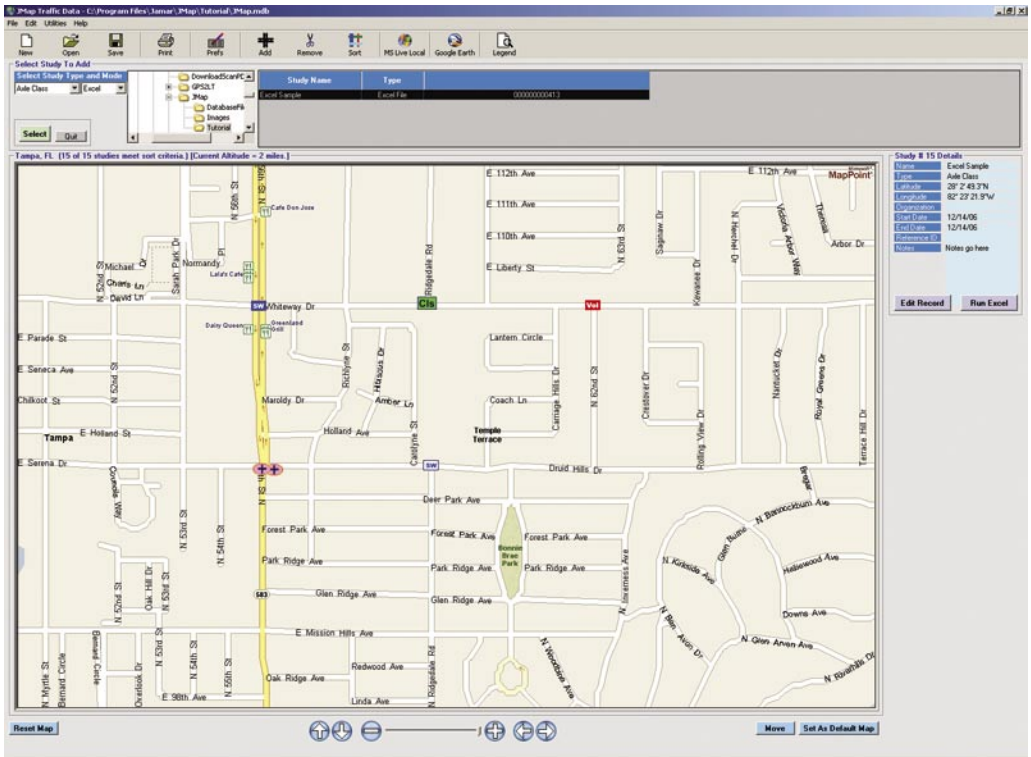


Figure 2-15: Excel Study Added

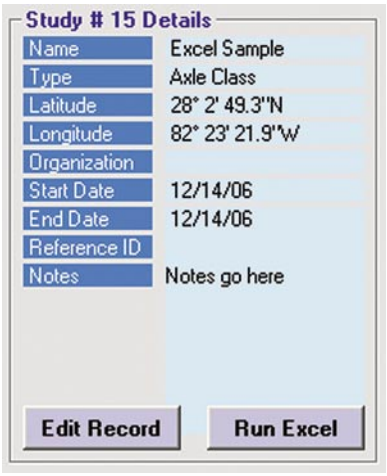


Figure 2-16: Excel Study Details

Shown here is the Study Details window for the Excel file we just added to the map. Since the icon was just added to the map the values shown are the default values used. You can see the *Type* is set to Axle Class and the Latitude and Longitude fields are filled in. The Start Date and End Date End Date is set to today's date.

Like Planned and Paper studies, you can click on the Edit Record button to edit the values shown on this screen. The process is the same as we previously covered with the Planned and Paper studies.

Since the icon represents an actual data file, there is an additional button, labelled *Run Excel*, which allows you to actually open the file directly in Excel.

If you have a copy of Excel on your computer, go ahead and click this button. Excel will start up, and the data for this file will appear on the screen. When you close Excel, you'll be taken directly back to JMap.

Congratulations! You have completed lesson five. In this lesson you learned about adding Planned, Paper and Excel studies to the map. In the next lesson you'll learn how to sort the studies you have added. You can take a break now, or jump right into the next lesson.

Lesson 6 — Sorting Studies

Since the core of JMap is a database (Microsoft Access, for those who care about these things), it probably isn't surprising that one of the features of JMap is the ability to sort the studies you see on the map. Sorting is a basic feature of all databases.

There are several reasons you might want to sort the studies. One of the more basic reasons is simply to eliminate clutter on the map. There are only 15 studies shown on the map right now, but once you have used JMap for several months you could easily have a large number of studies in your database. Showing all of them on the map would be visually confusing.

Another reason is to find a specific study. You may know approximately where a study is located, but if you have many studies in that area, it could be difficult to find.

The answer to these problems is to sort the studies so that there is a manageable number of studies visible on the map at any one time.

Click the *Reset Map* button to return to the default view, then click on the **Sort** icon on the toolbar near the top of the screen. You'll see a screen similar to the one shown below.

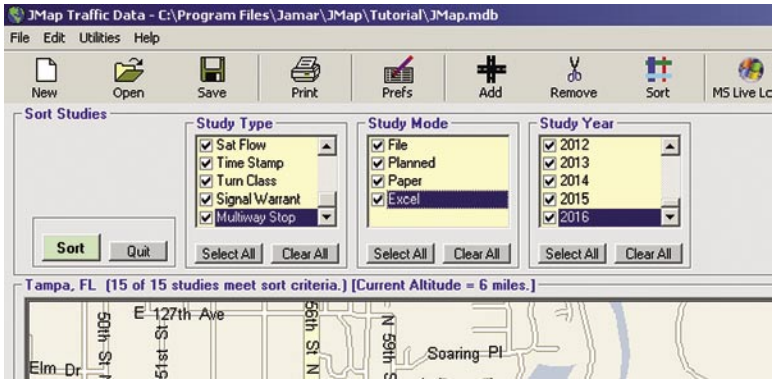


Figure 2-17: Sort Study Window

A new window appears, the **Sort Study** window, and the map compresses to make room.

There are three lists shown: one shows the type of studies supported and enabled, one shows the study modes, and the other shows a list of years (currently set to show from 1980 to 2016).

The operation of this feature is simple. You select one or more of the *Study Type* checkboxes, one or more of the *Study Mode* checkboxes, and one or more of the *Study Year* checkboxes, then click on the *Sort* button. The map will briefly clear and then show the icons for the studies that match the sort criteria you input. Below each list are two buttons, Select All and Clear All buttons, to help set the checkboxes quickly.

To see how sorting works, do the following:

1 – Click on the *Clear All* buttons under the Study Type, Study Mode, and Study Year lists. This clears all of the checkmarks from the lists.
2 – Click on the *Volume Count* checkbox, the *File* checkbox, and the *2001* checkbox.
3 – Click on *Sort*.

You will see just two icons on the map now. As it turns out, both of the volume counts used in the tutorial were done in 2001.

Now click on the Select All buttons under the Study Type, Study Mode, and Study Year lists, then lists, then click on Sort. All of the icons are visible again.

Remember, sorting doesn't do anything to the database or the studies in any way. It simply determines which studies you see on the map.

Note: If you have any ideas on additional criteria that could be used for the sorting process, please let us know.

Once the sorting is done, click on the *Quit* button to close the Sort Study window and restore the map to its full size. JMap remembers the sorting criteria used to show the icons on the map. That sorting criteria will be used until you change it, even if you close the program.

Using the Legend

Figure 2-18: Study Icon Legend

When you are viewing icons on the map or sorting them, it may not always be obvious what a given icon represents, especially if you don't use the software every day.

At the top of the screen there is an icon on the toolbar labeled **Legend**. Click on this icon and a window is displayed that shows the icons used in JMap and the studies they represent. You only see the studies that are currently enabled in the Preferences screen.

For example, if you have a white icon labeled SW you know that this is a signal warrant study that is planned for this location. If you have a blue icon labeled TM, you know that this is a turning movement file that you have a data file for on the computer.

Click on the Legend icon again and the window clears.

Congratulations! You have completed lesson six. In this lesson you learned how to sort the studies you have added. In the next lesson you'll learn how to see aerial photos of your study locations. You can take a break now, or jump right into the next lesson.

Lesson 7 — Viewing Aerial Photos of Your Study Locations

JMap can be used to access the free web-based mapping applications Google Earth and Windows Live Local. These are competing programs that in essence do the same thing - allow you to see aerial views of the Earth. To use these applications, you must have an Internet connection on your computer.

The first application we'll look at is Google Earth. This application requires that you download and install a portion of it from the Google web site. If you plan to use Google Earth with JMap, or want to follow along on your computer with this tutorial, download the free version of Google Earth now at: http://earth.google.com/.

Once Google Earth has been installed on your computer, click on the **Cls** icon in the lower left corner of the map near the intersection of Bullard Pky. & 56th St, then click on the Google Earth icon on the toolbar at the top of the screen. JMap takes the latitude and longitude information from the database and opens a browser to the Google Earth website with the parameters needed to show that location.

Google Earth begins with an aerial view of the Earth and begins to zoom in to the coordinates of your JMap study. It's a pretty cool process to watch. As the zoom brings you closer and closer to your location you'll begin to see more details. Finally the zoom will stop, around 1000 ft. above the coordinates of your study.

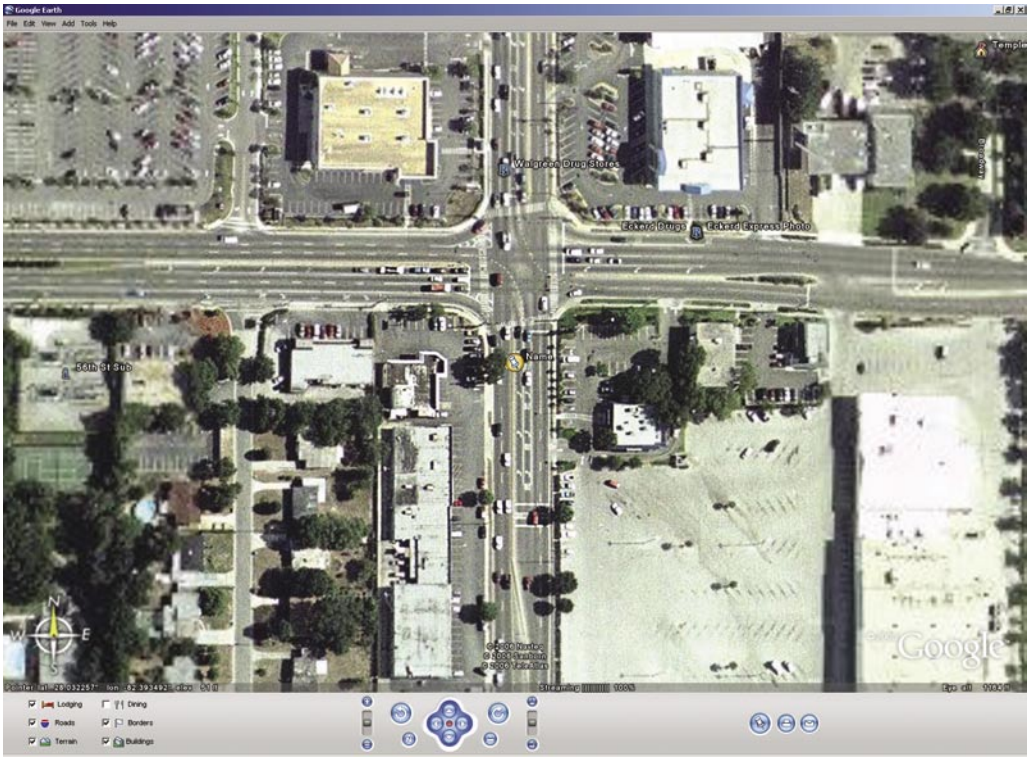


Figure 2-19: Google Earth View

This is an aerial photo of the location of the study. The quality of the photos vary considerably from place to place but in general if you are in an urban area you probably will see a pretty good image.

Google Earth contains a number of different tools that you can use when viewing your map. The 'Layers' checklist lets you choose what information to include on the map you see. The 'Tilt' commands can be used to tilt your view for the map up or down while the 'Rotate' commands can be

used to change your perspective. The 'Zoom' commands can be used to zoom farther out or closer in to your coordinates.

When you are done looking at the features of Google Earth, go to the File menu and select Exit. This will close the browser and return you to JMap.

The Windows Live Local application is very similar to Google Earth in that it provides aerial views of the Earth. Unlike Google Earth, this application does not require any program to be downloaded and installed on your computer. To start it, select the same **Cls** icon (if it is not still selected) and then click on the MS Live Local icon on the toolbar at the top of the screen.

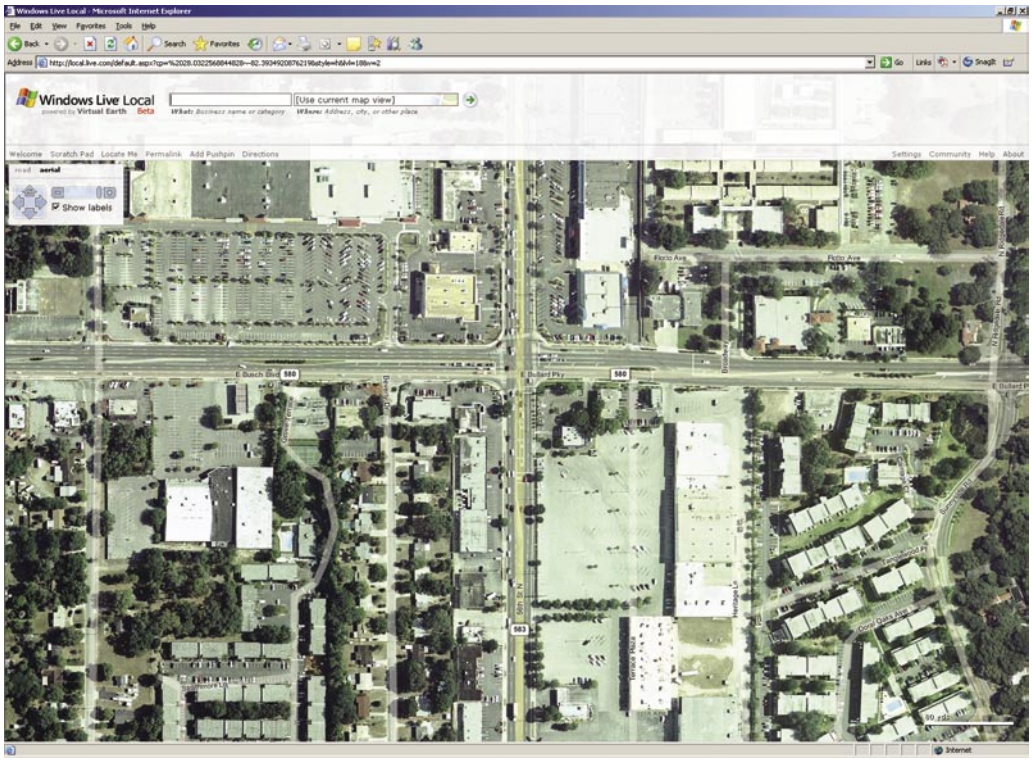


Figure 2-20: Windows Live Local View

Once you start Windows Live Local, it takes you directly to an aerial view of your coordinates. Like Google Earth, Windows Live Local has a few tools that can be used when looking at the map. A slider bar can be moved to zoom out from your location or zoom in.

For some locations, Google Earth has better images and for some Windows Live Local has the edge. At the time this tutorial is written, these are both fairly new applications that are sure to evolve and improve as time goes by.

When you are done looking at the features of Windows Live Local, go to the File menu and select Close. This will close the browser and return you to JMap.

Congratulations! You have completed lesson seven. In this lesson you learned how to see aerial photos of your study locations. In the next lesson you'll learn how to produce reports. You can take a break now, or jump right into the next lesson.

Lesson 8 — Producing Reports

JMap is not a program where reports would necessarily be important. It is primarily a way to organize your traffic studies and simplify loading the study data into the appropriate JAMAR programs. Reports on the data would typically be done by the various JAMAR programs.

However, it may be convenient to print a report showing the map with the study icons, possibly after a sort operation. For this reason, there are currently two reports you can print in JMap. Both show the map and icons you see on the screen. One report shows the map in landscape mode, while the other shows the map in portrait mode.

Suppose you want a report of the map as it currently looks, with the 15 studies we've added during this tutorial.

Click on the Print icon in the toolbar at the top of the screen. This will load the **Report Setup** screen shown here.

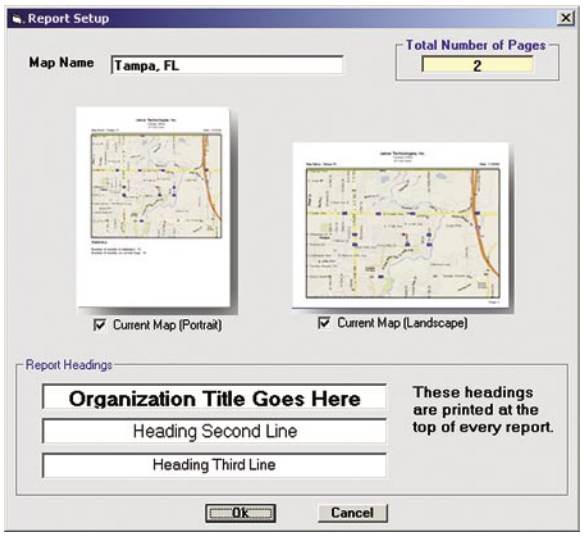


Figure 2-21: Report Setup

You can select either or both of the reports by clicking on the checkboxes below the two images of the reports. Click on both checkboxes to select both reports. Notice the page counter in the upper right corner tells you there are two pages selected.

The Report Headings field can be used to change the title information for the report. This information is read in from what has been set in the Preferences, as we covered in lesson 1.

Now click on the Ok button at the bottom of the screen. The software generates the reports and shows the preview screen shown below.

Figure 2-22: Print Preview

Since you probably have used JAMAR programs before, you are probably familiar with how the reports are previewed on the screen before you actually print them. Across the top of the screen are the various options. Typically you would select Print to print the report, or PDF to create a portable document file of the reports that you could email to someone. You can play with these and other options to see how they work. The reports do look better in color, so if you have a color printer as an option, make sure you select it.

Congratulations! You have completed lesson eight. In this lesson you learned how to produce reports. In the next lesson you'll learn how to set JMap up to use your own studies. You can take a break now, or jump right into the next lesson.

Lesson 9 — Setting JMap to Use Your Own Studies

In the previous lessons of this tutorial, you have seen the basic operation of the software. Now you are ready to create your own database using your traffic studies. You just have to change a setting in the Preferences and then you will be ready to begin building your own database.

Click on the **Prefs** icon on the Toolbar at the top of the screen, then select the **Default Values** tab. Click on the *Tutorial Mode Enabled* checkbox to un-check it. Then click on the Ok button at the bottom of the screen.

JMap shows you a map of North America to use as a starting point, as shown in the figure below.

Figure 2-23: Default Map View

First you want to zoom to the approximate area where your studies are located. Do this using the techniques shown earlier in this tutorial. Once you have the map showing the approximate area of your studies, click on the *Set As Default Map* button at the bottom right of the screen. JMap will store this map view and anytime you click on the *Reset Map* button you will return to this view. You will also see this view whenever you start JMap.

If, at any time, you wish to change the default map, simply navigate to a new spot on the map, click the *Set As Default Map* button and the new map will be used as your default. You probably will change the default view several times as you get experience with JMap. This is fine.

Congratulations! You have completed lesson nine. In this lesson you learned how to set JMap to use your own studies. In the next lesson you'll learn how to work with multiple database files. You can take a break now, or jump right into the next lesson.

Lesson 10 — Working with Multiple Database Files

When you first run JMap, it uses a default database file, named JMap.mdb, that was installed with the program. You can see the full path and name of this file listed in the title bar of the program, as shown in the figure below.

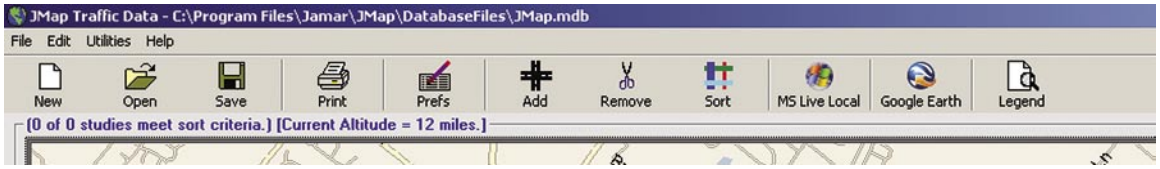


Figure 2-23: Default Database File

Some users may find that using just one database file is all they need, and will store all their data in this one default database. This is fine.

However, you are not limited to using just this database for your data. JMap gives you the ability to create and use multiple databases for your files. This can be handy if you find that you want to organize a portion of your data one way, and a separate portion another way.

For example, let's say we decide to maintain one database file with all of our JAMAR files, and a separate database file for all the Planned studies that we have scheduled. We save all the JAMAR files in the JMap.mdb default database file, but we need to create a new database file to store the Planned files.

To do this, we click the **New** icon in the toolbar and the Save As screen appears, asking us to assign a name to the new database file we want to create. We assign the name 'Planned', then we click *Save* and the new, blank database file is loaded. The path and file name listed in the program title bar change to reflect the file that is currently open, as shown in the figure below.

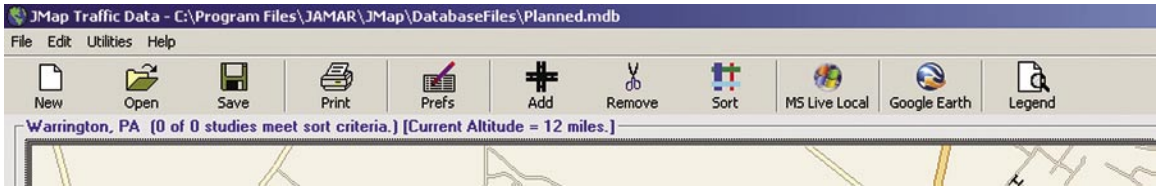


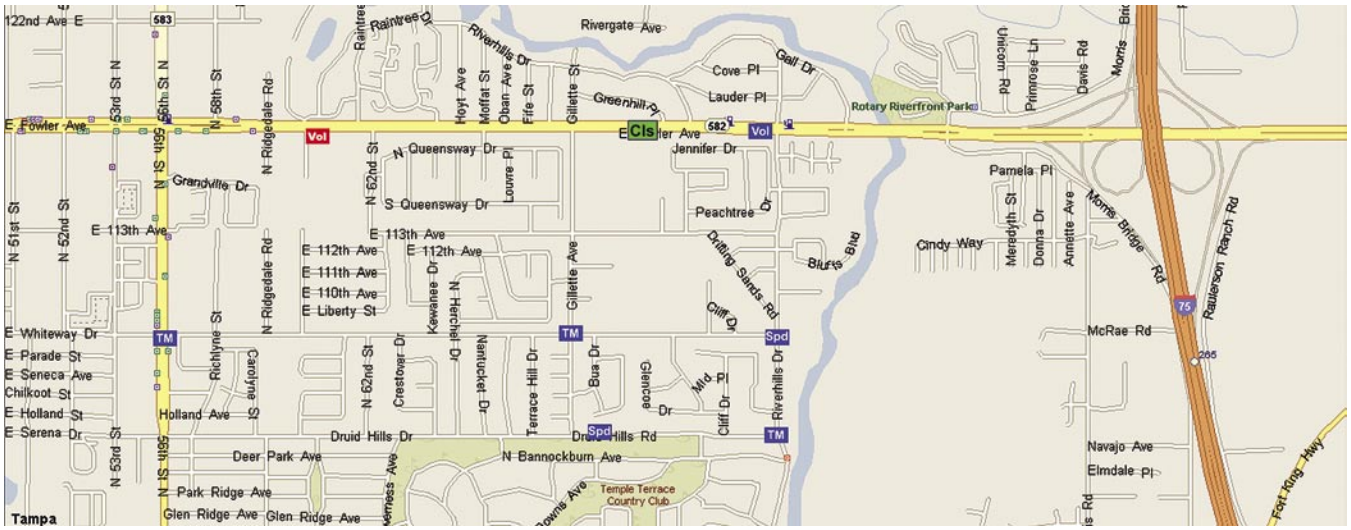
Figure 2-24: New Database File

If, at any time, we want to switch back to the previous database file, we can click on the **Open** icon and select the previous file to open it.

There is no limit to the amount of database files you can use in the program. Using the New and Open commands you can easily create new databases and switch between these various files.

Congratulations! You have completed lesson ten. In this lesson you learned how to create a new database file and open existing database files. This lesson concludes the tutorial for learning the basics of JMap. You should now have a good working knowledge of how to use the program.

Chapter 3



Troubleshooting

Software Updates

If you are having any trouble using your copy of JMap, the first thing we recommend you check is whether any updated versions of the program have been released. Updates to the program, which contain new features and bug fixes, are issued periodically and posted on our web site at **www.jamartech.com**. To check for updates, go to the *Help* menu and select *Check for Updates*. The program will automatically check the JAMAR web site and let you know if any updates are available.

Error Messages

JMap is written in Visual Basic and makes use of the Windows Run Time library. Any unexpected problems that occur in the program will usually generate a Run Time Error. These errors are listed by a number, followed by a text message. Should you encounter one of these, make a note of the full error message then check the JMap support web page at **www.jamartech.com/jmapsupport** to see if the error is a known issue.

Frequently Asked Questions

Are there any known problems with running the program on certain Windows operating systems?
No. The program should run properly on any 98 or higher Windows operating systems, including 98, NT, ME, 2000, XP and XP SP2.

Which program's files are supported by JMap?
JMap can support files from the following JAMAR programs: TRAXPro, PETRAPro, PETRA for Windows, PC-Warrants for Windows, PC-Travel for Windows and WinRAC Plus.

Do you have plans to support files from other JAMAR programs?
Yes. As new programs are developed and released by JAMAR, they will be incorporated into JMap.

Do you have plans to support files from non-JAMAR programs?
Not currently. JMap can't support other vendor's traffic data files the same way it supports JAMAR's because it has to be able to access the header of the data files to read values such as starting time, study type, etc. It also has to be able to add the latitude and longitude information to the data file once you place it on the map. JMap can only do this with JAMAR files.

Can JMap be run without having Microsoft MapPoint on the computer?
No. JMap requires that a copy of the MapPoint software be installed on the computer.

Can JMap be run without having Microsoft Access on the computer?
Yes. While JMap stores data in an Access database format, it does not require that a copy of Access be on the computer.