Tutorial #3:Working on the National Map

In the previous tutorials, work was carried out on city level maps, and the Street Menu and Find Street Tool were used to locate specific street locations. Both tutorials depicted how quickly and easily **Key Travel Map for Windows** not only locates streets and intersections, but also how adept it is at plotting direct and sensible routes between points.

Street level maps and routes created by **Key Travel Map for Windows** are simple to create and easy to use in any number of applications. At the city level, most routings are fairly straight forward, becoming complex only when many points must be reached.

It is also true that anyone creating a street level routing is frequently familiar with the city represented on the map. **Key Travel Map for Windows's** usefulness comes into play mainly in designing and creating routes which yield precise directions.

The main difference when working with a routing at the national or USA level, is that the location of a certain city is known, but the means of getting there is not. Almost everyone has had the experience of how one wrong turn on a long interstate drive can result in an undesired and frustrating detour. **Key Travel Map for Windows** can take much of the worry out of long distance navigation.

Utilizing **Key Travel Map's** ability to locate specific cities and towns, routings can be created with precise directions which can make any long journey, whether interstate or cross country less problematic.

In this tutorial, a routing for a visit to locations in nine specific states is created, resulting in a set of driving instructions with changes of directions clearly labeled and measured.

This tutorial considers a long vacation, starting point; **Seattle, Washington**. Following is a list of destinations:

Glacier National Park
The Grand Canyon
The Carlsbad Caverns
San Antonio
then on to Boston,
with stops in Memphis
Atlanta
Virginia Beach and
Washington, D.C.

The usual questions with any vacation are:

"Where to go?"
"Where are the places to be visited?"
"How to get there?"

The first question can be answered by the user. The second and third require a bit of research and the help of **Key Travel Map for Windows**.

Key Travel Map CD-ROM for Windows

Step 1: Planning the Route

As in any vacation planning, a list of intended destinations should be made. Listing the places as above is not necessarily enough.

Most people know where Los Angeles is located, and getting there from Seattle, Washington should not be excessively difficult. **San Antonio, Texas** is another matter, though. Directions like "...go to Minneapolis and turn right" can be quite misleading.

Where Is That Place?

Using **Key Travel Map for Windows**, all that is required is the name of the place to be visited and the state in which it is located. Although it isn't necessary to have the name of the state, locating a city or town without the state can be time consuming as shown in Chapter Two, The **Key Travel Map for Windows** Interface.

Assuming that all of the ground work has been completed, the vacation listing could be as follows:

Place	**Location**
Glacier N. Park,	Montana
Grand Canyon,	Arizona
Carlsbad Caverns,	New Mexico
The Alamo,	San Antonio,, Texas
Memphis,	Tennessee
Atlanta,	Georgia
Virginia Beach,	Virginia
Washington D.C.,	District of Columbia
Boston,	Massachusetts

The fourth destination, The Alamo, presents no problem. After arriving in San Antonio, Texas, it is quite easy to locate Texas' most prominent national monument. (Of course, with the Key CityMap for Windows for San Antonio, Texas, the trip can be planned right to the doors of The Alamo!).

The National Parks and both the Grand Canyon and Carlsbad Caverns are also included in **Key Travel Map for Windows** files.

Step 2: Getting Out of Town

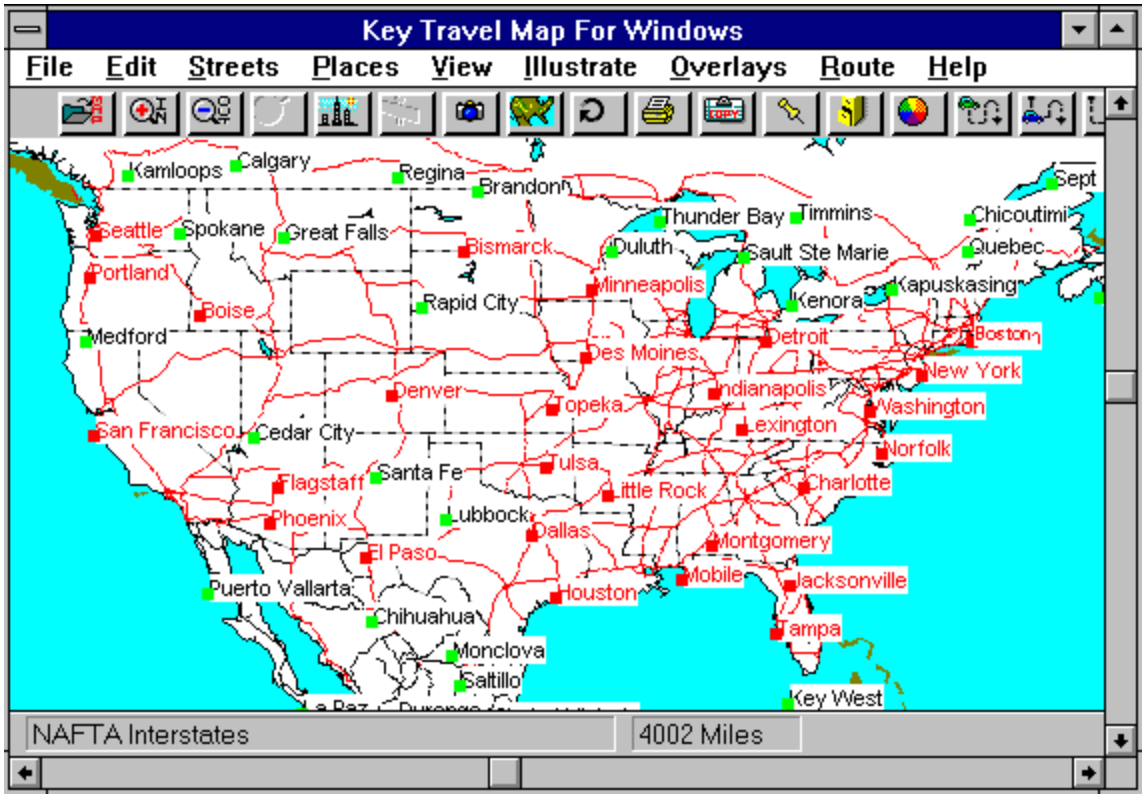
First start **Key Travel Map for Windows** and have the list of vacation stops nearby for easy reference. At the opening screen, the National Map can be accessed in one of two ways:

- Click on File in the Menu Bar.
- Select Map Selection by clicking on it OR Press M.
- When the File Selection Dialog box is displayed, highlight U.S.A. (Interstates) by clicking on it

or using the arrow keys.

- Click OK OR Press Enter.

The resulting display is the National Map. Alternatively, click on the U.S.A.Map tool in the toolbar to quickly display the National Map.



The USA Interstate Map

Since the trip starts in Seattle, Washington, use that as the Starting Point (Start street.).

The sequence is straightforward:

- Find Seattle, Washington
- Zoom In on the Seattle area.
- Select Interstate I-90 to proceed west.

NOTE: A little research may be required. I-90 is the major interstate heading west. This type of information can be obtained from Automobile Clubs, Tourist Bureaus and a great number of related sources.

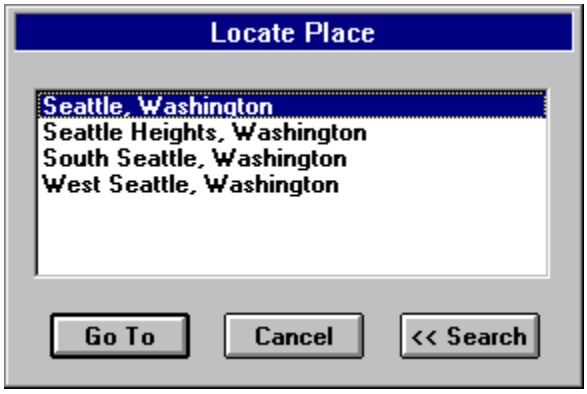
- The simplest method of zooming in on Seattle and positioning it in the center of the screen is to use the Find Place feature or the Find Place Tool.

The Places Menu

- Click on Places in the Menu Bar OR select the Find Place Tool to display the Find Place Dialog box. Type Seattle, Washington and click on Search.

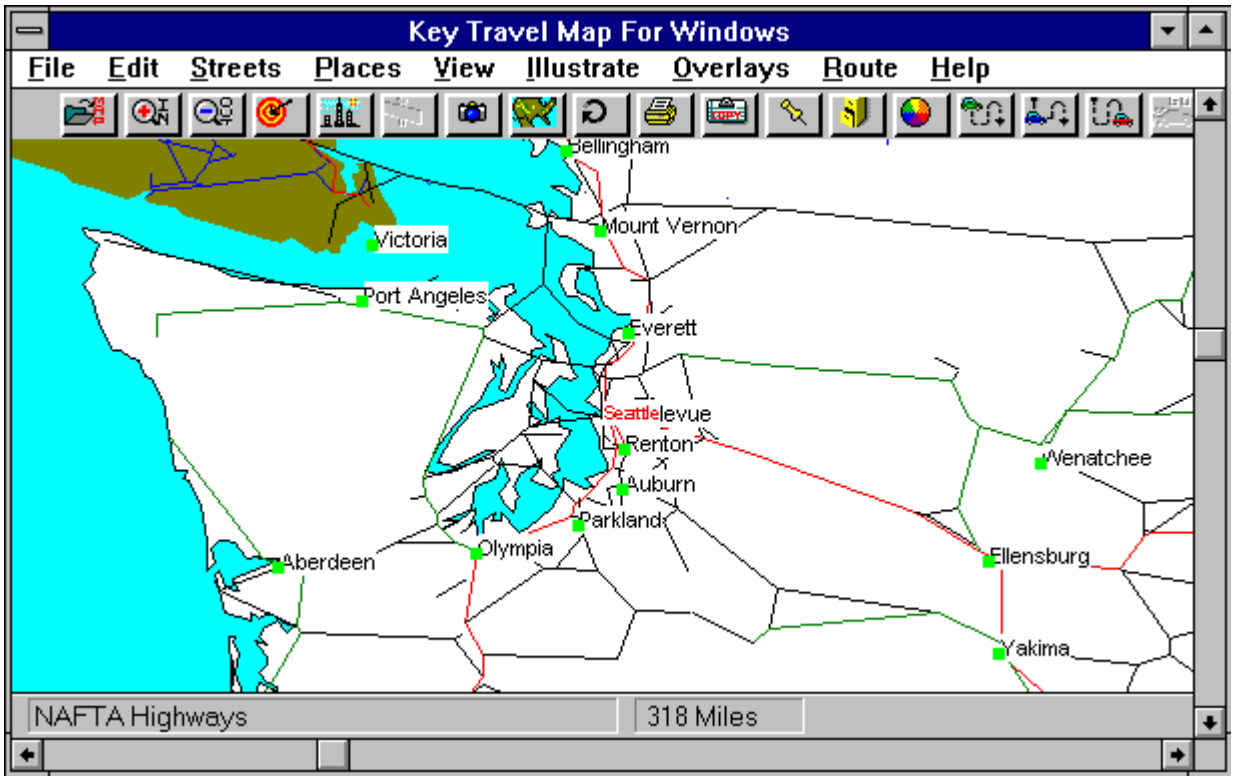
The Find Place Dialog Box

A list of possible choices are displayed as shown. Select Seattle, Washington by clicking on it or highlighting using the arrow keys.



A listing of Possible Cities

- Click GoTo OR Press Enter.



Automatically "Zooming In" on Seattle

At this point the map is regenerated with Seattle, Washington situated at the center of the screen, and the place name is displayed in a contrasting color (on a color monitor, the default color is red).

Depending on the display parameters selected in the Preferences Menu, Interstates are displayed in a contrasting color. The default color for Interstates is red. To simplify the task of locating interstates, choose to display them in thicker lines in the Preferences Menu.

NOTE: If the thickness of the Interstates is changed, be careful not to make them too thick, otherwise they might obstruct other highwas or raodways in close proximity.

Selecting the Start Street

An easy method of selecting the Start Street (Starting Point), is to use the Start Street Tool in the Tool Bar.First locate I-90.

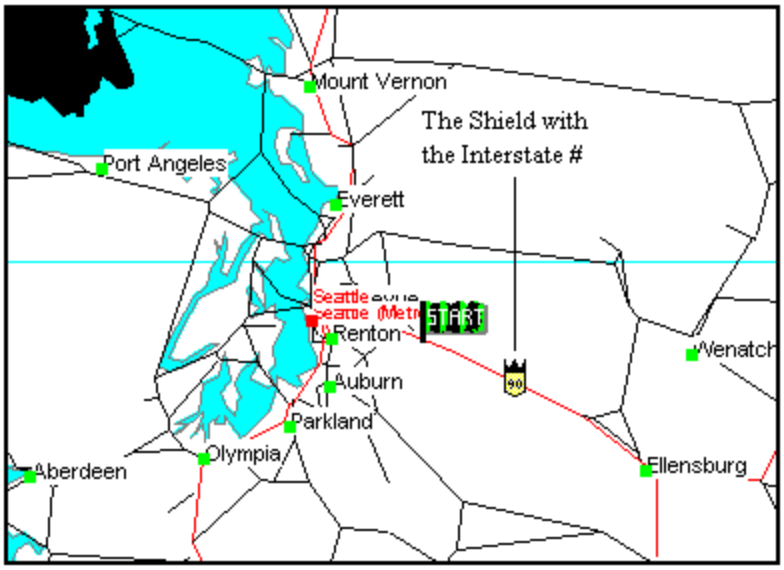
When **Key Travel Map for Windows** zoomed in on the Seattle portion of the U.S.A. Map, it reverted to the U.S.A. Highways map. For this reason, at this display scale, Interstates are not automatically labeled. If the display characteristics of Interstates have been changed as mentioned above, there are only two Interstates in the Seattle area. One of them runs North/South, the other East. The names of these Interstates

can be found by placing the cross-hair cursor on them one at a time and clicking the left mouse button. Choosing the Easterly Interstate has the following result:

Locating/Labeling an Interstate

The Information Box shows that I-90 was clicked. To label this Interstate, click . The highway is labeled as displayed.

Once I-90 has been located, it can be easily selected as the Start Street.



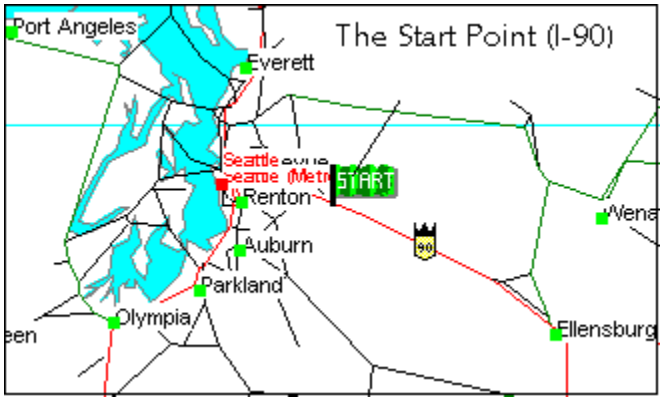
The I-90 Interstate labeled

The Start Street Tool

Clicking on the Start Street Tool turns the cursor into a checkered flag. Place the base of the flag on I-90 just to the right of Seattle and click the left mouse button. An Information Box verifies that the correct street (I-90) has been selected; If the display confirms that the correct Start Street (I-90) was selected, click on OK.

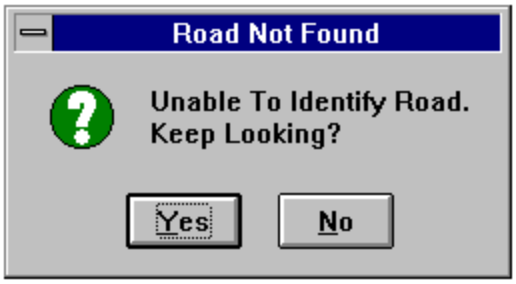
Verifying The Start Street

The map is regenerated and the Start Flag is displayed on the selected highway:



The Starting Point Selected

NOTE: If instead of the Information Box (on the preceding page) the following message is displayed, this implies that the Interstate was not clicked. Be sure to keep the mouse steady and try again.



Street Not Found Information box

Now that the Starting Point has been chosen, the next step is to locate and select the first Intermediate Point: **Glacier National Park**.

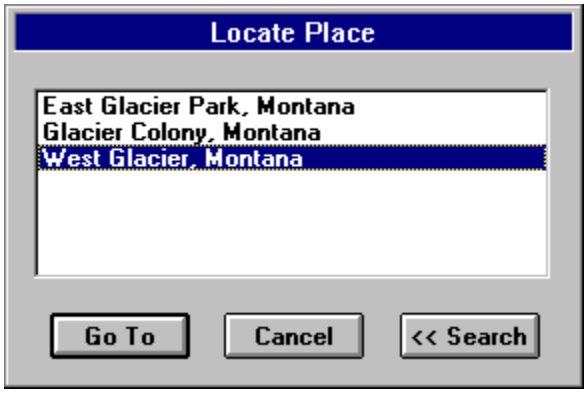
Key Travel Map CD-ROM for Windows

Step 3: The First Intermediate Point

The First Intermediate Point to be selected is Glacier National Park, which is in Montana. Using the Find Place Tool the area around the First Intermediate Point can be easily displayed.

Following the same steps as used to locate the Starting Point:

- Click on the Find Place Tool. The Find Place Dialog box is displayed.



The Locate Place Dialog box

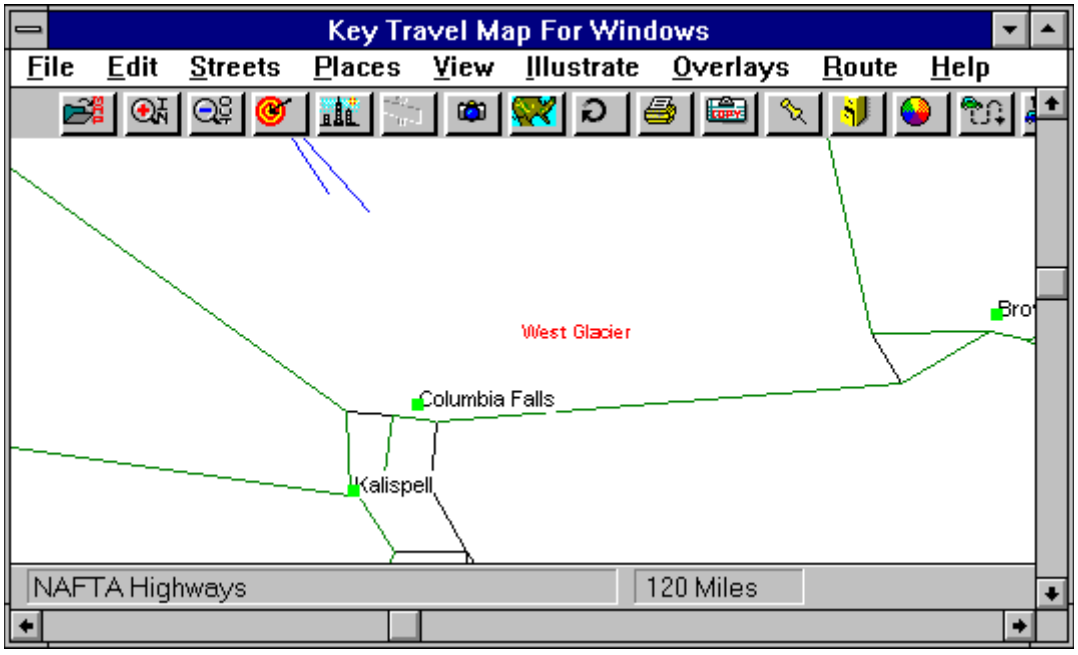
- In the Find Place Dialog box, enter the name GLACIER in the City box, and the state MONTANA in the State box.

- Click on Search.

The following listing is displayed:

Since Glacier National Park is approached from the west, select West Glacier by highlighting it with the mouse pointer and clicking on GoTo.

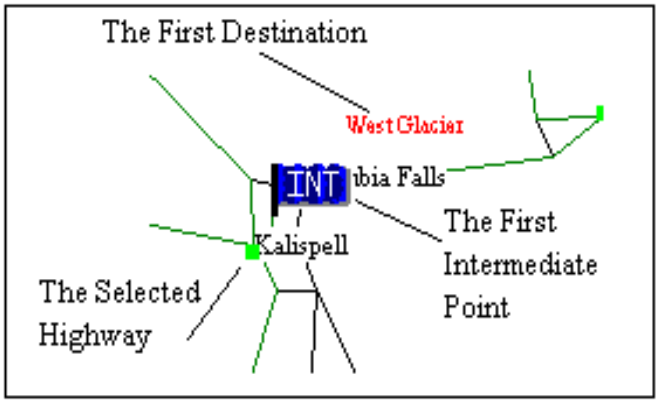
The map is regenerated with the selected City (Place) in the center of the screen in a contrasting color. To make it a little easier to see the city in question, click on the View Menu and change the Scale to 120 miles.



The Second Place Displayed on the Map

Notice that just below West Glacier Park is the town of Columbia Falls, with a roadway leading south. Click on this road and **Key Travel Map for Windows** will tell you it's US Highway 2.

- Select the Intermediate Street Tool from the Menu Bar and place the base of the flag on this highway. Click the left mouse button and click OK when the Confirmation Box comes up. The result should be as below:



The First Intermediate Point on the Map

Step 4: Plotting the Other Points

The procedure for plotting the rest of the Intermediate Points is identical to that used in the previous pages. The only question arises when the desired points or cities are not directly connected to a road or highway. This occurred in plotting West Glacier Park. The only decision to be made is the direction of approach.

The other Intermediate Points can be easily plotted by using a bit of logic in ascertaining which direction(s) the journey takes.

The sequence is always the same for finding the various points:

- Use the Find Place Tool to locate the city or town. Use GoTo to display the area.
- If necessary (usually, at the U.S.A. level), change the display scale using the View Menu. The Zoom In Tool can be used, however, using the View Menu guarantees that the located city will be positioned in the center of the display.
- Locate a major highway or artery approaching the city from the direction you'll be arriving from.
- Select the Intermediate Street Tool and click on the correct highway. (Found in step 3 above.)

Try to complete the route using the following directions:

Grand Canyon, Arizona (2)

Select **Grand Canyon Caverns** from the display of possible sites. Change the display scale to 120 miles, if necessary. Just below the **Grand Canyon Caverns** label there is an interstate running from East to West. Click on this highway just below the caverns. This should be I-40, the second Intermediate Point.

Carlsbad Caverns, New Mexico (3)

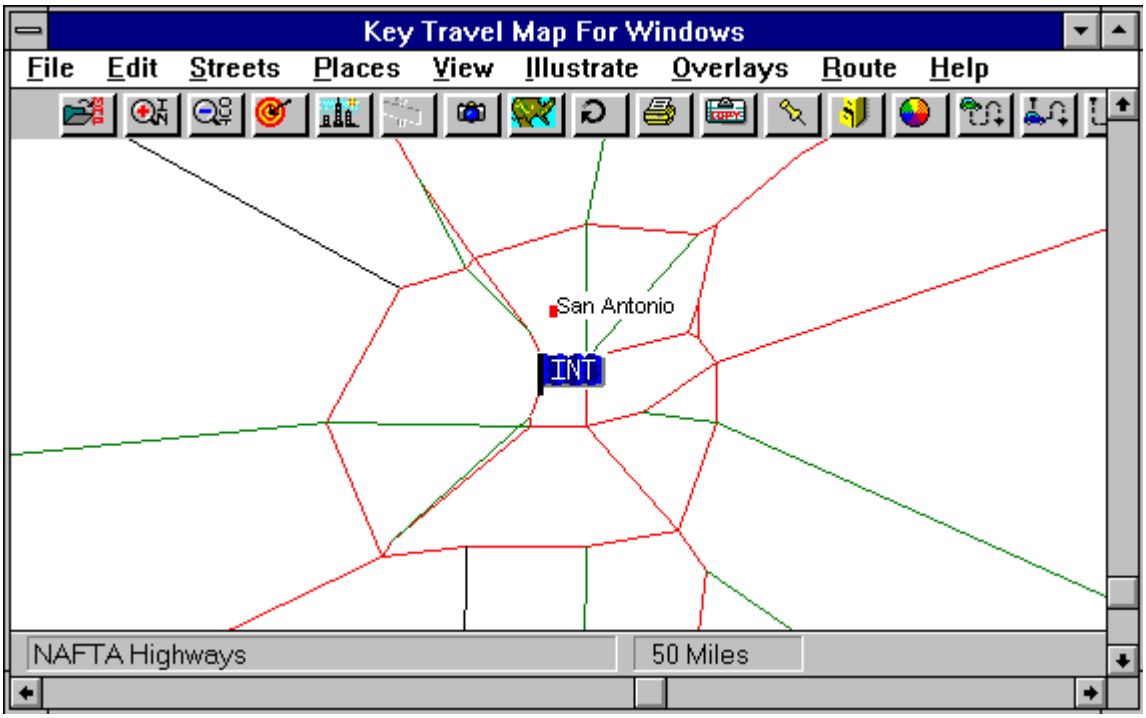
Use the same procedure as for the **Grand Canyon**, select **Carlsbad, New Mexico** from the listing of sites. Adjust the display scale as required.

Notice the town of **Artesia, NM** just north of **Carlsbad**. The highway running south from **Artesia** is **US 285**. Use this as the Intermediate point.

NOTE: The scale of the map is shown in the center of the Status Bar near the bottom of the screen.

San Antonio, Texas (4)

This is a little more complicated, since the area around **San Antonio** is rather "cluttered." **San Antonio** is a major highway hub for **Texas**. Zooming in or changing the scale to 40 or 50 miles is recommended. Position the fourth Intermediate point as shown in the disgram below . This is **I-10, I-35, US 81**.

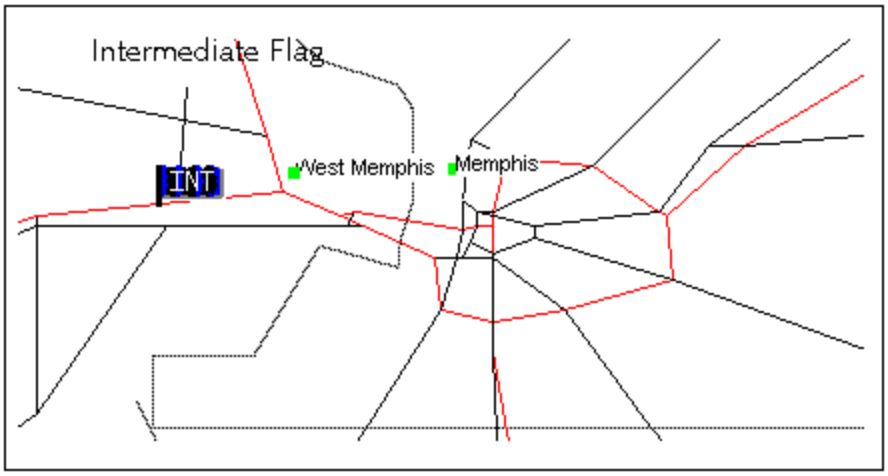


San Antonio as Intermediate Point #4

Memphis, Tennessee (5)

Upon selecting **Memphis, Tennessee** with the Find Place Tool, many roads may not be displayed in the center of the screen. To display all roads, simply zoom in or change the scale to 50 using the Chang Scale option in the View Menu.

Locate I-40 just west of Memphis as shown in the figure. Memphis flagged should look like the following figure:



Memphis flagged as an Intermediate Point

Atlanta, Georgia (6)

Atlanta presents a problem similar to San Antonio, but the clutter is more apparent. Changing the display scale to approximately 50 is recommended. Locate the roadway leading into **Atlanta** from the South. This is **I-75, I-85, US 401**. This is the sixth Intermediate point.

Virginia Beach, Virginia (7)

Towards the east the maps become more complex, with more and more roads displayed. Once again, change the display scale to zoom in on the area around **Virginia Beach**. Locate **US 60** (on the coast) and use it as the Intermediate Point.

Washington, D.C. (8)

To find the nation's capitol enter **Washington** in the city box and **District of Columbia** in the state box. Change the scale and select **US29** coming into **Washington** from the South just above the **Washington, D.C** label as the Intermediate Point. The next city to be found is the final destination: **Boston, Massachusetts**.

Step 5: Finding the End Street

Find Boston, Massachusetts using the previously outlined procedures for locating a place, then change the display scale to 50, and locate the highway US1. Use the Find street Tool in the Toolbar to complete the route. After the desired highway has been located, place the base of the flag on it and click the Left mouse button.

NOTE: If problems are encountered in locating US1, check the **Preferences** menu settings for highways.

Click OK at the Confirmation Box.

To Abort, simply click on Cancel.

After the highway has been correctly selected, the END flag will be displayed. At this point the Route can be created.

Step 6: Creating the Route

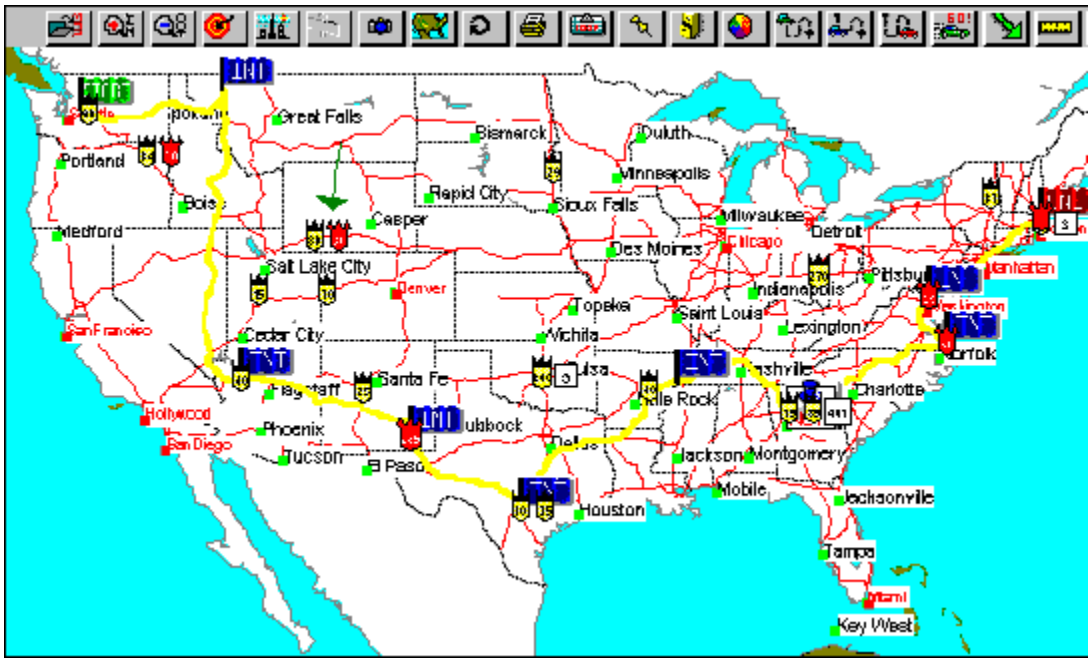
To create the route use either the ***Create Route*** feature in the **Route** Menu, or simply click on the Create Route Tool (the last tool in the Tool Bar, the one with GO on it).

Setting Auto Scale

After the route has been created it can be printed, copied to the clipboard, or saved in some manner. The entire route can be placed on display. To do this set Auto Scale ON as follows: Click on the **Route** menu. If there is a check mark beside Auto Scale, it is turned ON. If not, click on it, then click on the Create Route again.

The Create Route Tool works identical to the ***Create Route*** feature in the **Route** Menu. Click on the Create Route Tool and the route will be created.

The length of time it takes will depend on the computer being used and the Windows configuration (and if any programs are running in the background).



The Created Route shown on the Map

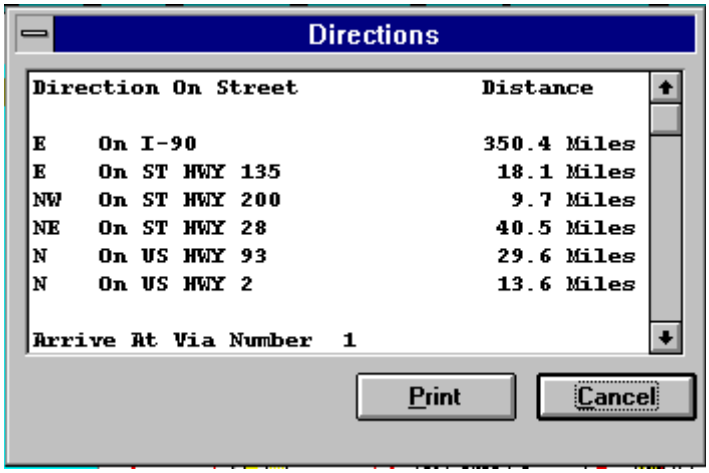
Generating a Hardcopy

It's very important to save the displayed route if it is to be printed. After the session has been saved, although the route may be displayed on the map, it cannot be printed from **Key Travel Map for Windows**. A hardcopy should be generated on completion to verify that the routing is satisfactory.

Saving the route to the clipboard enables it to be printed at a later date, but don't forget to save the contents of the clipboard before transferring something else and over writing the routing. Consult the Windows manual for instructions on using the Clipboard Viewer and how to Paste the contents to other programs.

Step 7: Printing the Driving Instructions

As always, when a route is plotted, **Key Travel Map for Windows** provides detailed driving instructions for the whole of the route. To view the driving instructions access the **Route** Menu and select ***Show Directions***. The screen similar to the following will be displayed:



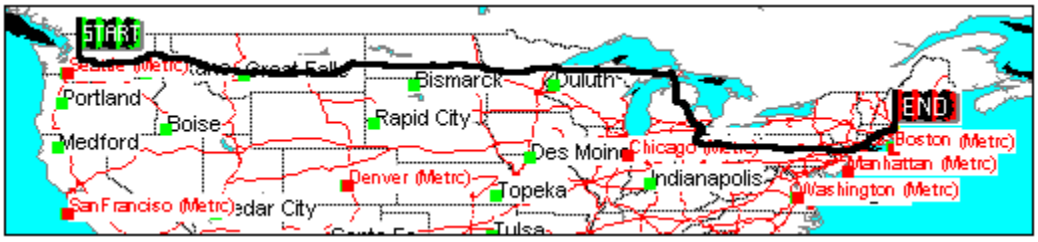
The Driving Instructions Dialog box

Here the driving instructions can be viewed by using the scroll bars on the right side of the Driving Instructions Dialog box. Click on the Print button for a printed copy.

NOTE: The Generated directions are suggested driving instructions only. Actual distances may vary depending on the geography of the given area. **Key Travel Map's** suggested directions may not be applicable for all routing requirements.

Creating a Direct Route

If a routing from **Seattle, Washington** to **I-90** to **Boston, Massachusetts** arriving on the **I-90**, is to be created using only a Start and End Street the following results are obtained:



A Direct Route with 0 Intermediate points

Notice how **Key Travel Map for Windows** chooses to route north of **Lake Michigan** via **Wisconsin**.

To force **Key Travel Map for Windows** to go south of **Lake Michigan,** select **Chicago, Ill. or Gary, Indiana** as an Intermediate Point. Using **Gary, Ind.** results in the following:

Same Route with an Intermediate point

If it makes no difference which cities are visited enroute to Boston, the only consideration is the mileage. Print the directions for each route and make a comparison.