

## *Appendix E*

# Using Microsoft MapPoint and T.O.M. to Create a Map of Your Field Trip

Having a map for a field trip is a natural help. Either you are taking a trip to a new location or you have a new relatively inexperienced driver who needs help in finding his / her way around the field trip. Gecko has linked T.O.M. with a relatively new member to the Microsoft Office family of software products – MapPoint to do this. MapPoint is one of the easiest yet most powerful mapping software products available on the market. MapPoint is not only a powerful mapping tool, it also contains detail street maps and points of interest for all of North America. Because both T.O.M. and MapPoint were developed in the Microsoft Office framework they can easily communicate with each other providing you with two products that can act as one!

**Note: In order to use the mapping feature of T.O.M. you must have Microsoft MapPoint 2002 or later installed on your workstation.**

Using T.O.M. and MapPoint to create a map for your field trip is a simple two step process: 1. Retrieve the field trip you wish a map for and edit it in the Working With Field Trips Screen. 2. Click on the Map button on the Detailed Field Trip Screen. T.O.M. automatically launches MapPoint, feeds it the field trip's customer location and destination location and instructs MapPoint to create a route from the customer to the destination. (Note: if your field trip has multiple destinations T.O.M. will feed MapPoint the location of all the destinations in your field trip and the sequence that you will visit each destination.) T.O.M. then instructs MapPoint to generate detailed driver directions (lefts and rights) for this route. T.O.M. will then retrieve these driver directions and place them in the destination's special instructions. T.O.M. will also retrieve the estimated miles of the trip that MapPoint estimates and place them in the field trip's estimated miles. (Note: having T.O.M. retrieve both the driver directions and estimated miles from MapPoint and place them in the field trip record is optional. You can specify in the District Options whether or not T.O.M. you retrieve this information and place it in the field trip record.)

Let's see how it's done step by step:

### First Retrieve the Field Trip You Want to Map:

You must first retrieve the field trip you wish to map. To do this locate the field trip you wish to map on your field trip search screen and double click on it or click on it and click the Edit button (Figure E- 1).



**Field Trips** Number of trips selected: 7417

Dates and General | Billing | Assignment | Other | Sorting and Lookup

Departure Date Range: From:  To:  Dates:

Selected Trip#:  Customer:

Selected Request #:  Destination:

Trip#	Customer	Destination	Departure	Billed	Canceled	Assg
12050	AMERICAN CANCER SOCIETY	A B C MUSIC STORE	4/8/2003	No	No	Yes
12047	ARROWHEAD ELEM	PHOENIX ZOO	4/26/2001	No	Yes	Yes
12046	ECHO MOUNTAIN ELEM.	CHAPPARAL PARK	9/15/2000	No	Yes	Yes
12045	ARROWHEAD ELEM	PHOENIX ZOO	4/26/2003	No	No	Yes
12044	ARROWHEAD ELEM	PHOENIX ZOO	4/26/2001	No	No	Yes
12043	ARROWHEAD ELEM	PHOENIX ZOO	4/28/2003	Yes	No	Yes
12042	EAGLE RIDGE ELEM.	AGUA FRIA HIGH SCHOOL-NORTH	5/24/2001	No	No	Yes
12041	ARROWHEAD ELEM	PHOENIX ZOO	4/26/2001	No	No	Yes
12040	ARROWHEAD ELEM	PHOENIX ZOO	4/26/2001	No	No	Yes

Find All | **New** | Edit | Delete | Copy | Print | Calendar | Summary | Exit

Either Click in the desired trip and click the Edit button or double click on the

After selecting the trip click the Edit button.

Figure E- 1Selecting a Field Trip To Map



Second, Click on the Map Button on the Detailed Field Trip Screen

Once the Detailed Field Trip Screen displays simply click on the MAP button located in the General Section of the Detailed Field Trip Screen to the left of the Fund text box (Figure E- 2). T.O.M. will automatically launch MapPoint, give it the customer and destination locations, and instruct MapPoint to create a route from the customer to the destination(s) (Figure E- 3).

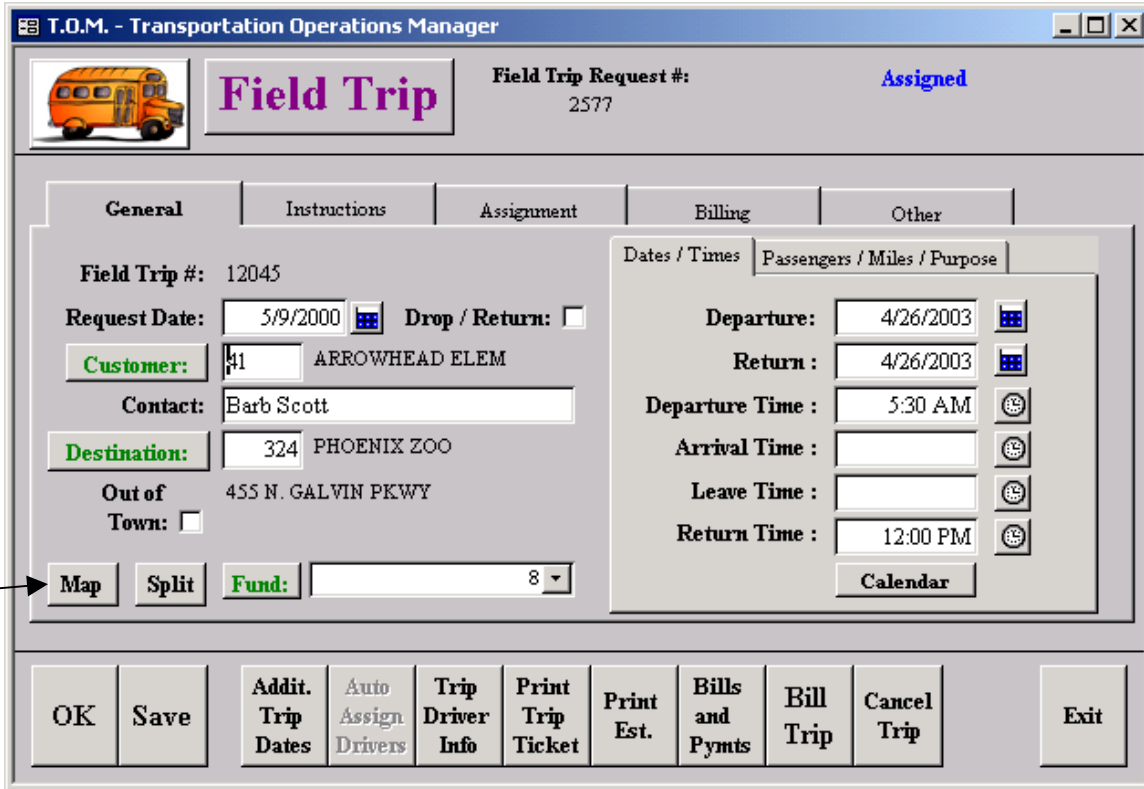


Figure E- 2 – Clicking on the Map Button to Create a Map in MapPoint for the Field Trip.

Click on the Map Button.

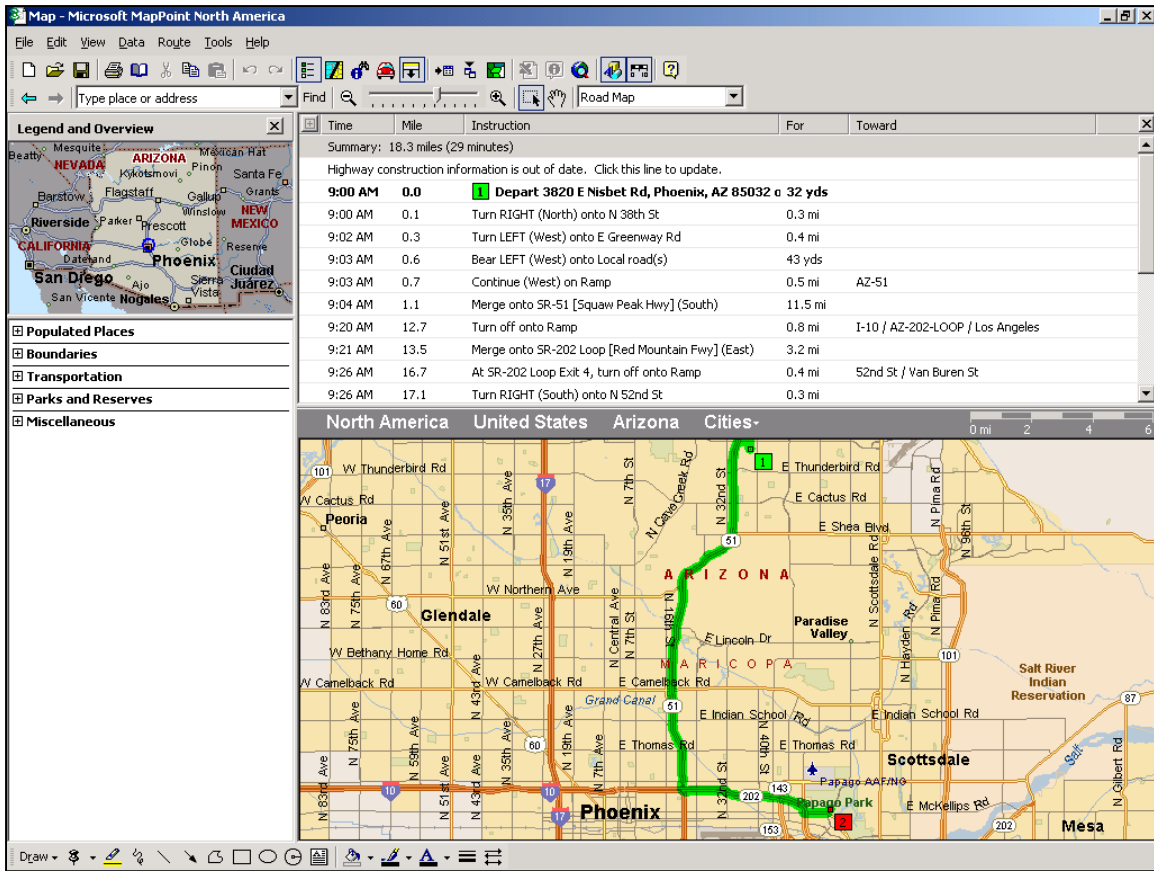


Figure E- 3- Map of Field Trip Automatically Created when T.O.M. Launched MapPoint

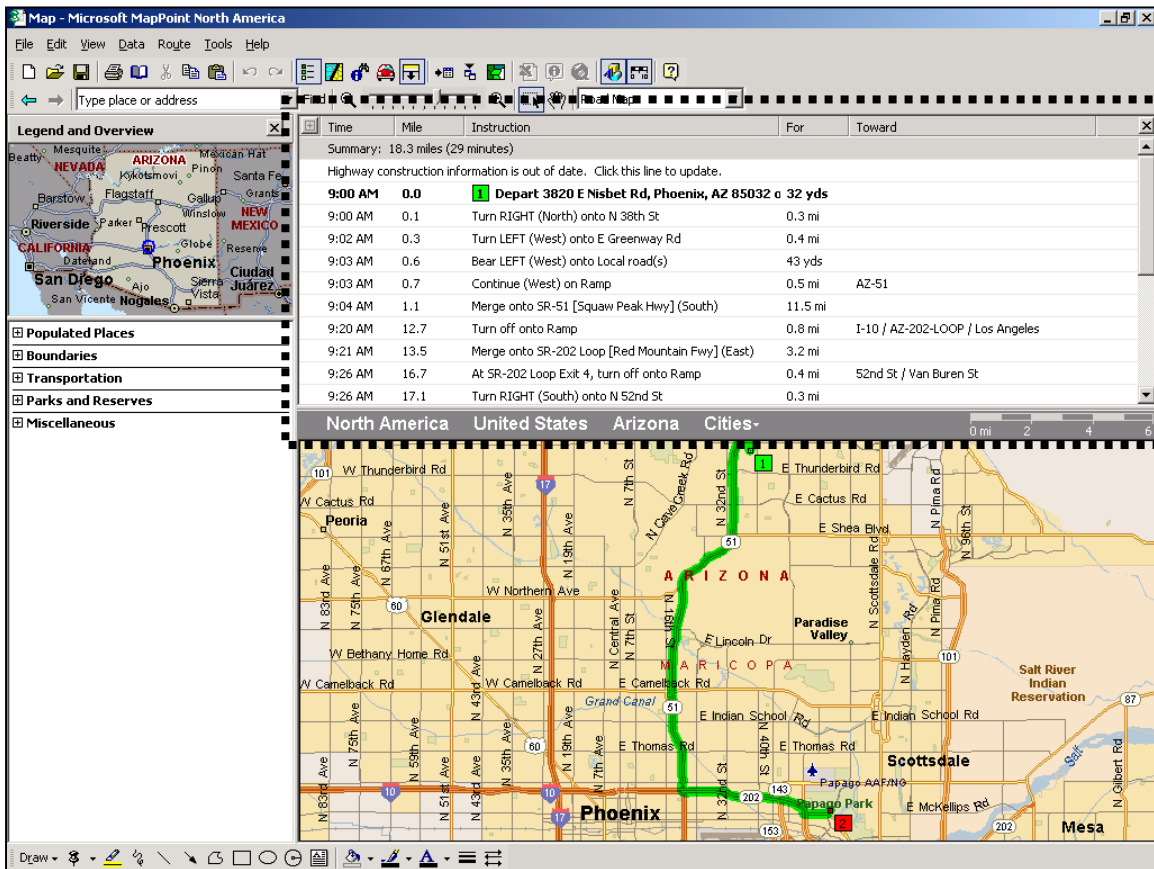
While in MapPoint you can Pan / Zoom in and out of the map of the field trip to better understand it. You can also print this map using any one of the many different attractive maps or reports available in MapPoint. For more information on what you can do in MapPoint see the user's guide that came with MapPoint or refer to MapPoint's comprehensive electronic Help. When you are ready to return to your T.O.M. Software simply close your MapPoint session.

### What Does T.O.M. Retrieve From MapPoint?

As was mentioned at the start of this chapter T.O.M. can retrieve two things from MapPoint: 1. The detailed driver directions generated from MapPoint. 2. The estimated miles of the field trip calculated by MapPoint. Let's take a look in detail at each of these:

#### DRIVER DIRECTIONS

As you have seen MapPoint automatically creates detailed driver directions (or lefts and rights) for your field trip. T.O.M. can automatically retrieve those directions and place them in the field trip's Destination Special Instructions. By doing this T.O.M. is now able to print a Trip Ticket for the field trip that will contain these special instructions. Figure E- 4 shows the driver directions for the trip by MapPoint. Figure E- 5 shows the Instructions Section of the Detailed Field Trip Screen with that field trip with MapPoint's driver directions automatically copied into the Destination Special Instructions by T.O.M.



The driver directions section of the map.

Figure E- 4 – The Driver Directions Section of the MapPoint Map of the Field Trip



**T.O.M. - Transportation Operations Manager**

**Field Trip**      Field Trip Request #: 2577      Assigned

General    **Instructions**    Assignment    Billing    Other

**Customer Special Instructions:** PICK UP ALL FIELD TRIPS ON THE SOUTH SIDE ON NISBIT (bus pull-out)(OVERNIGHT TRIP TO THE ZOO)      [Reset to Cust.](#)

**Destination Special Instructions:** Depart 3820 E Nisbet Rd, Phoenix, AZ 85032 on E Nisbet Rd (West)Turn RIGHT (North) onto N 38th StTurn LEFT (West) onto E Greenway RdBear LEFT (West) onto Local road(s)Continue (West) on RampMerge onto SR-51 [Squaw Peak Hwy] (South)Turn off onto RampMerge onto SR-202 Loop [Red Mountain Fwy] (East)At SR-202 Loop Exit 4, turn off      [Reset to Dest.](#)

**Trip Comments:**

OK    Save    Addit. Trip Dates    Auto Assign Drivers    Trip Driver Info    Print Trip Ticket    Print Est.    Bills and Pymts    Bill Trip    Cancel Trip    Exit

MapPoint's driver directions copied by T.O.M. into the trip's Destination Special Instructions.

Figure E- 5 – Same Driver Directions Created by MapPoint Copied Automatically into the Trip's Destination Special Instructions



ESTIMATED MILES

MapPoint also calculates the estimated miles for a trip. T.O.M. can automatically retrieve that estimate and place it in the field trip’s estimated miles section. NOTE: when MapPoint estimates the miles for a trip it estimates a ONE WAY TRIP only. When T.O.M. retrieves that estimate, T.O.M. will first double the estimate to estimate a ROUND WAY TRIP mileage before placing it in the trip’s Estimated Miles. T.O.M. will also add the customer’s Base Miles to that estimate if there are any. Remember the Customer’s Base Miles was entered to estimate a round trip from the bus garage to the customer’s. By both doubling MapPoint’s estimated miles and adding the Customer’s Base Miles T.O.M. effectively transforms MapPoint’s estimated miles for a one way trip from the customer to the destination to a round trip from the bus garage, to the customer then to the destination and back.

Figure E- 6 shows how MapPoint has calculated the trip’s Estimated Miles as a one way trip. Figure E- 7 shows how T.O.M. then automatically takes this number and doubles it to reflect a round trip and then adds the customer’s base miles to that number before placing it into the field trip’s Estimated Miles.

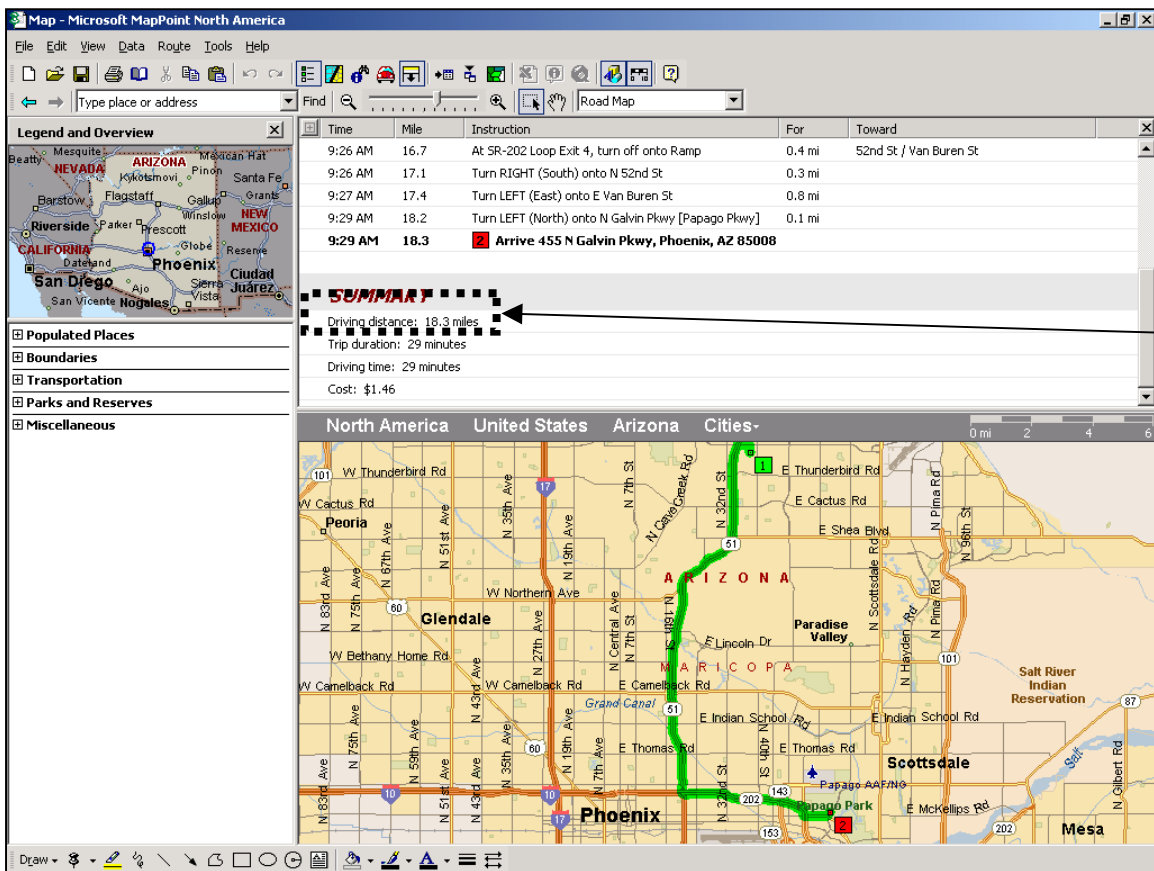


Figure E- 6 – MapPoint’s Estimated Mileage for the Field Trip

MapPoint’s Estimated Miles.



**T.O.M. - Transportation Operations Manager**

**Field Trip**      Field Trip Request #: 2577      Assigned

General    Instructions    Assignment    Billing    Other

Field Trip #: 12045

Request Date: 5/9/2000    Drop / Return:

Customer: 41 ARROWHEAD ELEM

Contact: Barb Scott

Destination: 324 PHOENIX ZOO

Out of Town:  455 N. GALVIN PKWY

Map    Split    Fund: 8

Dates / Times    Passengers / Miles / Purpose

# of Adults : 3

# of Students: 30

# of Wheelchair: 0

Estimated Time: 4.00    Calc

Estimated Miles: 41.68

Purpose :

OK    Save    Addit. Trip Dates    Auto Assign Drivers    Trip Driver Info    Print Trip Ticket    Print Est.    Bills and Pymts    Bill Trip    Cancel Trip    Exit

Figure E- 7 – Results of T.O.M. Taking MapPoint’s Estimated Miles & Doubling It & Adding Customer’s Base Miles

The result of T.O.M. automatically taking MapPoint’s Estimated Mileage, doubling it to reflect a round trip and adding the customer’s base miles.





## What If I Don't Want T.O.M. To Copy this Information From MapPoint?

If for some reason you decide you don't want T.O.M. to retrieve either the driver directions or estimated miles from MapPoint you can turn these features off. In T.O.M.'s District Options there is a new section titled Map that contains check boxes that allow you to turn these two features on or off ( ).

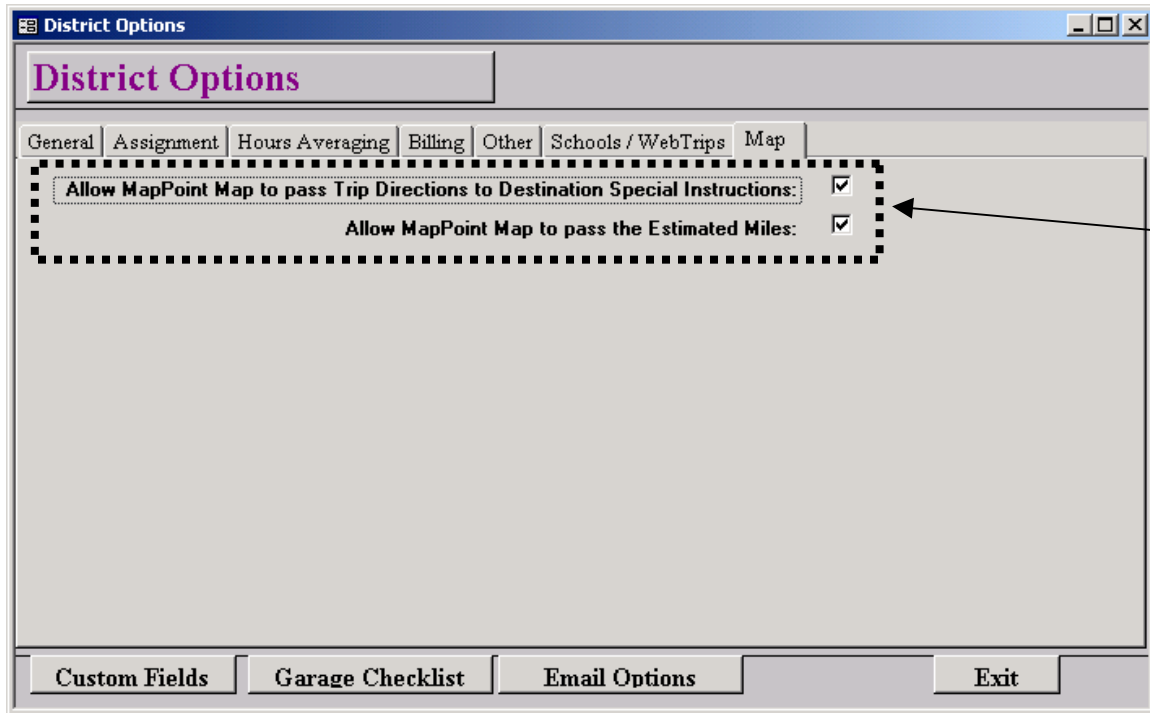


Figure E- 8- Map Section In T.O.M.'s District Options Screen that Allows You to Turn Off T.O.M.'s Retrieving of Driver Directions and / or Estimated Miles from MapPoint

Check box options that allow you to signal to T.O.M. what information you want T.O.M. to automatically retrieve from a MapPoint map of a field trip.